



PROCEEDINGS OF THE
ROAD VERGE SEMINAR
HELD AT BOYUP BROOK
ON
SATURDAY, AUGUST 11, 1990

The morning session consisted of six speakers and a question time. This was followed by lunch and a workshop session. Facilitators then summarised workshop findings and presented recommendations.

THE SPEAKERS

1 Penny Hussey

Employed by the Department of Conservation and Land Management, Penny spoke on conservation corridors, definitions, historical value; and why we have road verges.

2 Brett Loney

Brett is employed by the Main Roads Department and spoke on rehabilitation and revegetation, including reseeding of verges.

3 Peter Bothewell

Peter works for Westrail and discussed Linear Reserve Management and Westrail's aims for Linear Reserve Management.

4 Denis Saunders

Employed by CSIRO, Dennis spoke on the biological value of road verges as corridors for wildlife.

5 John Blythe

John works with the Department of Conservation and Land Management and talked on fire management and its relationship to road verges.

6 Ian Purse

Boyup Brook Shire President spoke on the role of the Shires in road verge management.

1st speaker : Penny Hussey

Penny presented a brief history of road verges. Interest by Government was noted in the 1950's. The RAA asked that a vegetation strip, five metres wide be left along roadsides in the forest areas. The policy of clearing land for agricultural development (1,000,000 acres per annum) caused huge changes in the environment in extensive areas of the State. In many regions the only remaining natural vegetation exists in the roadside corridor.

The policy of development in country areas included the creation of wider road reserves and nature reserves. A practical method of tackling management of road verges by local people was described. A survey of the vegetation, listing what is there, weeds, nature of adjoining land, widths of the verge, presence of features such as undergrowth is critical, erosion and overall appearance can be carried out. In order to successfully manage the verge a plan should then be designed.

Part of the plan must be the retention of the maximum amount of vegetation. Rehabilitation is costly and hard to carry out. Shires can get markers from CALM to indicate protected areas of verges.

Widening of verges is possible with the help of landowners. Setting back fence lines can augment existing native vegetation. Shires can encourage this by doing the fencing. Some overview of the appearance and resources of a region is necessary to the implementation of successful planning and management of its road verges.

Visuals: Slides showed occurrence of vegetation along road sides in Wheatbelt areas. Effect of revegetation, etc.

2nd Speaker : Brett Loney

Brett's main points were that it costs no money to save vegetation, while it is expensive to rehabilitate lost or degraded verges. If the job of road construction or maintenance is carried out correctly using markers to delineate protected areas, correct removal of vegetation, preserving seed for seed collection will insure that minimum impact on the verge will be effected. Stepped cuttings reduce water erosion. Water harvesting using appropriate tilling technique is effective.

It is essential to save and use local seed for revegetation after road widening and construction. Deep ripping aids tree rehabilitation and moisture retention.

Visuals : Extensive use of slides illustrating road construction techniques, successful reseeding programmes, etc.

3rd speaker : Peter Bothewell

Peter stated that Westrail has 5,000 kilometres of rail and rail reserves to manage. There is a strong commitment to rail reserve management and protection, but there is an issue between maintenance and conservation. Because of the vast area of reserves involved, a programme of linear management of remnant vegetation is underway. Identification, sign posting species for protection, special fire control, modified spraying practices, corridor greening and crossover with other Government Departments are all aspects of successful linear reserve management by Westrail. Some Federal Government funding towards this programme has been awarded to help retain and manage native bush on rail reserves.

The contentious issue of redundant reserves was carefully explained by the speaker. Present legislation allows disused railway lines to revert back to the Crown. Westrail is actively aware of both the tourism and conservation value of rail reserves and railway travel. This has been acknowledged by a recent Tourism Award to Westrail.

Visuals : Overhead projected map of all railway lines, including potential disused lines.

4th speaker : Denis Saunders

Much of Denis's information concerned itself with the impacts of over clearing of native vegetation for agricultural development. Some 100,000 square kilometres of land has been cleared since 1917.

93% of the available agricultural land in the South West region has been cleared. 60% of this area was cleared in the last 35 years.

Denis defined real conservation as practices which protect soil productivity and the conservation values of the environment. These principles have been significantly absent in the development of the South West. This is indicated by a high percentage of unusable and severely degraded land, and the extinction of many species of flora and fauna. There is no evidence of a sustainable agricultural system in Western Australia at present. Lack of water management has caused widespread salinization of soil.

Soil productivity is closely allied to retention of native vegetation and species diversity. Thirteen species of birdlife have become extinct since European settlement. There is a clear relationship between the decline of the numbers of bird species and the clearing of native vegetation.

Road verges now represent a significant part of the remnant vegetation in some areas. They constitute corridors for some species and they are important seed banks for native vegetation.

Through connecting up existing remnant vegetation with road verges, an increase in the overall area of continuous native bush can be made with significant benefits for wildlife. The wider the vegetation belt the greater the species diversity, especially where the upper and lower canopy are intact.

There is a responsibility for community to be actively involved in road verge management. Shires cannot effectively do this alone. By being involved people are expressing their sense of ownership and actively vesting interest in the future health and beauty of their environment.

Visuals : Many slides illustrating a variety of road verge conditions, disaster areas and successfully retained verges. Land SAT map of Western Australia showing vast expanse of cleared land against forest region and goldfields native vegetation still remaining.

5th speaker : John Blythe

(John kindly took the place of John Robley who was ill)

John's talk was based on the Roadside Conservation Committees guidelines for fire control.

Fire is a natural process - but changes in the frequency of burns and their intensity do its effect.

The changed environment especially along road verges which effect wind and occurrence of fires must be considered in overall burning programmes. Fertiliser and spray drift, etc, impact on vegetation which in turn effect the kind of fire programme used. The periodicity and timing of burns is important. Seeders and sprouters are killed by fire, also the different ages at which plants seed is critical.

Fire distribution in limited patches allows refuges for wildlife and plant stocks rather than entirely burning verges as is usually done. Weeds are usually more flammable and regenerate more readily after fire, which can actually increase weed growth.

Roadside verges potential as "fire-fuse" can be defused by breaking up burning programmes. Finally, it is important to know what you have to plan fire control carefully and remember that retention is much cheaper than rehabilitation.

6th speaker : Ian Purse

Shires are responsible for 83% of the states road verges. This is an enormous responsibility and task and they need active help from all interested groups. Funding for verge rehabilitation is limited and the process is expensive and lengthy.

Ian outlined how roads are classified, the criteria used and some factors for local groups to consider when they undertake road classification.

These factors include the conservation value of the vegetation, recreation value, historic and tourist value, traffic composition its volume and seasonal aspects. The purpose of the road, such as access for school buses or farm access, the level of use as major or minor feeder roads and the width of the existing carriageway, needs to be taken into account.

Categories of Local Government Roads and Nominal Clearing Width

Category	Criteria	Suggested Carriageway Width	Clearing Width
1	Major feeder roads	9m	15m
2	Lesser feeder roads	8m	14m
3	Farm access roads (major)	7m	12m
4	Farm access roads (minor)	5m	7m

Ian suggested that retaining narrow roads and encouraging land holders to set back their fence lines was important. Shires could aid in this activity by doing the refencing. His summary mentioned the possibility of road classification days in which residents, Shire works foremen and Shire Clerks would confer on which roads need special management. He emphasized the importance of education of outside workers in road verge management and the role of Fire Control Officers in successfully implementing this programme. Finally, the speaker reiterated the critical importance of community involvement in making it all work.

Visuals : extensive use of slides showing road construction techniques, successful reseeding programmes, etc.

QUESTION TIME

A brief question time was allowed, however participants were encouraged to save their vital points for the workshop session.

Questions on the viability of Westrail's management of old reserves were raised. Existing legislation binds Westrail to the present practice whereby disused rail reserves revert back to the Crown. The lack of foresight of this legislation was noted, and the need for substantial changes to it. Questions on rehabilitation and revegetation techniques were answered by Brett Loney. The viability of deep ripping before tree planting was queried plus the damage to ground cover involved.

General questions on the damage to verges through previous inappropriate management were raised.

The Chairperson indicated that some of these points would find a better focus as directions for the workshops.

Participants were asked to examine the workshop topics and to choose which group they wished to work in. There were seven workshops, grouped as follows:

WORKSHOP TOPICS

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|----|---------------------------------|------------------------------|
| 1. | <u>Rail Reserves</u> | FACILITATOR: Peter Bothewell |
| 2. | <u>Conservation Values</u> | FACILITATOR: Dennis Saunders |
| 3. | <u>Road & Landscape</u> | FACILITATOR: Peter Bothewell |
| 4. | <u>Revegetation</u> | FACILITATOR: Brett Loney |
| 5. | <u>Role of Shires in Future</u> | FACILITATOR: Ian Purse |
| 6. | <u>Tourist Driving</u> | FACILITATOR: Penny Hussey |
| 7. | <u>Construction Techniques</u> | FACILITATOR: John Blythe |

SUMMARIES OF THE WORKSHOP FINDINGS

- 1 Rail Reserves
 - * Preservation of disused railway lines and reserves, to remain under the jurisdiction and control of Westrail.
 - * Preservation of existing railway lines and reserves.
 - * That local communities and Shires be involved in all land issues relating to management of reserves.
- 2 Conservation Values
 - * Road verges have significant values as reserves for former vegetation.
 - * No more clearing to take place.
 - * Preservation as seed resource representing local genetic stock for seed nurseries.
 - * Existing gravel pits to be rehabilitated and weed infestation controlled.
 - * Communication of the conservation values of verges to local people in particular.
 - * Press coverage be given to the days findings.
- 3 Road and Landscape
 - * Impact on each other and should be seen together.

- * Assessment by communities and professionals.
- * Strategic widening to be undertaken only.
- * Remnant vegetation to be linked with both private and crown land.
- * Conservation values are measurable.

4 Revegetation

- * Communication of existing expertise.
- * Seed sources and supply : local, self-collected and professional.
- * Techniques of reseeded : top soil, direct seed and hand planting.
- * Rehabilitation : exotic weed control, natural decline costs, techniques, hygiene control, total revegetation, overall planning of each rehabilitation project.
- * Community ownership.

5 Role of Shires in Future

- * Firm policy on verge management : fire, indigenous species, gradual road widening, road construction.
- * Responsible Committee : high profile, liaison with land care groups, farmers, all relevant Government bodies, Fire Control Officers, etc.
- * Dissemination of policy to general public through all media.
- * Education of children.
- * Use of chemicals (or not), strategic firebreaks.

6 Tourist Driving

- * Views from road and verge together are important.
- * Road classification to include tourism value.
- * "Roadside Flora Areas", picnic spots, etc, identified, noted and marked.
- * Management to specifically improve tourist experience.
- * Shires initiate local committees with five year plan.

7 Construction Techniques

- * Low impact techniques exist.

- * Correct techniques should be applied in an appropriate fashion.
- * Training seminars arranged for outside Council staff.
- * Seminars to be practical, hands on, using local knowledge and professional expertise (eg botanist)
- * Use of existing information such as Roadside Manual and Vegetation Clearance Guidelines.
- * Road managers kept abreast of new techniques, eg drain-spinner for maintaining table drains; safe, minimum impact use of herbicides, tree pruning not removal.

RECOMMENDATIONS FROM THE DAY

- * That Shires initiate road classification days on which residents, Shire Works foreman and Shire Clerks would confer on which roads are to have special care and management for tourist or conservation values.
- * That Shires initiate training days for their outside staff to educate them in road verge design, use of herbicides, increasing awareness and skills in plant and machinery operation, minimum impact work practices and use of equipment. That the days be practical, hands on, highlighting actual techniques and solutions to real problems and that the Roadside Conservation Committee helps to coordinate them.
- * That each Shire set up a Committee involving local Tourist Centre Managers to develop a plan for tourist driving. That the plan consider classifying all roads for tourist value, identification of tourist interest sites, eg flora areas, photo and picnic spots, walk trails, heritage, etc, highlighted in a brochure. That the plan run for five years and then be renewed and that local groups be encouraged to take up the management of each area.
- * That the present legislation governing disused railway lines and reserves be urgently revised with a view to Westrail retaining them in its control in perpetuity. That all disused railway lines be kept for the possible needs of future generations. That disused rail reserves be given the status of nature reserves and be protected as such.
- * That all road verges be retained.
- * That Local Authorities maximize the width of road verges wherever possible, so the maximum diversity of existing flora and fauna is retained and that verges be joined up with native bush to increase the overall area of continuous vegetation.

LIST OF ALL WHO ATTENDED AND THEIR ADDRESSES

Nick Dodson, RMB 1349, Bridgetown 6255
Gerry Parleuliet, Department of Agriculture, Katanning 6317
Peter Webster/Laurie Stewart, Shire of Boyup Brook, PO Box 2,
Boyup Brook 6244
Shiela Curnow, West Arthur 6392
Danny Harris/Nick Kalaf/Graham McClure, Shire of Dardanup, 3
Little Street, Dardanup 6236
Charles Lockwood, Shire of Harvey, PO Box 163, Harvey 6220
Mary Ritson, Terry Road, Boyup Brook 6244
Chris & Robin Evans, RMB 347, Kojonup 6395
Jack Reid, 14 Culleenup Rd, North Yunderup 6208
Doug Baskerville, Telecom, Edward Court, Bunbury 6230
John Lack, 2 Jarvie Crescent, Bunbury 6230
John Skillen, Department of Conservation and Land Management,
North Boyanup Road, Bunbury 6230
Joan Hetherington, Shire of Donnybrook-Balingup, PO Box 94,
Donnybrook 6239
Pauline Glynn, C/- Post Office, Boyup Brook 6244
Susan Wallace, C/- Post Office, Boyup Brook 6244
Joanna Seabrook, Boya RCC and wildflower?
Shirley Hands, "Lincoln", Boyup Brook 6244
Jenny & Ian Purse, PO Box 101, Boyup Brook 6244
Lyn White, C/- Post Office, Darkan 6392
Jan Smith, C/- Post Office, Darkan 6392
Joan Barron, C/- Post Office, Boyup Brook 6244
Richard & Brenda Trigwell, C/- Post Office, Boyup Brook 6244
WH Rowan-Robinson/Terry Inman, Shire of Bridgetown-
Greenbushes, PO Box 271, Bridgetown 6255
Liz Jack, WA Tourism Commission, 61 Victoria Street, Bunbury
6230
Denis Saunders, CSIRO, Wildlife & Ecology, Helena Valley 6056
Brett Loney, Main Roads Department, Perth
Margaret Pearce, Tourist Bureau, Manjimup 6258
Stan Dilkes, Leeuwin Conservation Group, Margaret River 6285
Kerry Hawley, Department of Agriculture, Manjimup 6258
Barbara Reid/Syd Hymus, Shire of Capel, PO Box 36, Capel 6271
Brian Smith, Pemberton Tramway, Pemberton 6260
Stephen & Laurie Bullied, PO Box 403, Bridgetown 6255
Jim Edwards, PO Box 375, Bridgetown 6255
Erica Shedley, RMB 382, Bridgetown 6255
Jenny Dewing, PO Box 257, Bridgetown 6255
Peter Bothwell, C/- Westrail, 605 Wellington St, Perth
Joan Hipple, 36 Blechynden Street, Bridgetown 6255
Trevor McGowan, PO Box 267, Margaret River 6285
Keith Tritton, Augusta-Margaret River Tourist Bureau, PO Box
171, Margaret River 6285
Alan West/Robert Kelly, RMB 282, Margaret River 6285
Tom Bailey, Islands of Green, Bunbury 6230
Susan Jones, RMB 639, Donnybrook 6239
Alan Grist, Main Roads Department, Bunbury 6230

LIST OF ALL WHO ATTENDED AND THEIR ADDRESSES (Continued)

Stan Cull/Margaret Graham, Shire of Collie, Throssell Street,
Collie 6225

Greg Kaeding, SWDA Advisory Committee

Penny Hussey, C/- Department of Conservation and Land
Management, PO Box 104, Como 6152

John Blyth, Department of Conservation and Land Management,
Hackett Drive, Crawley 6009

Keith Liddelow, Shire of Manjimup, PO Box 2, Manjimup 6258

Dale Spencer, Agricultural Protection Board, 14 Swan Street,
Manjimup 6258