



# WIDE ROAD VERGES ARE CONSERVATION ZONES

## SUMMARY

*In Western Australian legislation, the term "road" (or "street") includes the whole road "reserve". In actual fact, under land administration in this state, land set aside for roads is not treated strictly as a reserve but as a road dedication. Although dedicated roads (ie road "reserves") generally come under the care, control and management of local government authorities (Section 300, Local Government Act) or the Commissioner of Main Roads (Section 15, Main Roads Act) - they are not specifically vested in the exclusive control of these road authorities. By default road reserves have also become public utility service corridors and no single authority has a legal controlling or co-ordinating function on roadside management.*

*At the same time, the wide rural roadsides in Western Australia were deliberately created as a matter of government policy for the past 50 years, for flora and soil conservation. However, the lack of management co-ordination has often resulted in this reason being forgotten and their conservation value degraded by too frequent burning, unco-ordinated road and public utility construction and maintenance, and the extraction of road building material.*

*More recently, however, there is a growing community realisation that the depauperate conservation reserves system in Western Australia's agricultural areas - and especially in the Wheatbelt - is inadequate to alone save many of our flora, bird and mammal species from extinction in the near future. As a consequence, the community has embarked upon a long-term program of conserving bushland remnants on farms, townsites and other areas. However, this too is not enough for there is now clear evidence that the survival of some species will be dependent upon their habitats being connected, even tenuously, by conservation corridors. In the Wheatbelt, the wide road reserves form the basis of such a system that needs to be strategically enhanced. Regional planning in the State has now also adopted the concept of providing and maintaining conservation corridors. Continued use of wide road verges as a source of gravel and other road construction material, however, mitigates against the reason for their establishment - for flora and soil conservation.*



## BACKGROUND

At an IUCN meeting held in New Delhi 1969 concerning 'creative conservation in an agrarian economy', a paper was presented on the "Situation of Landscape Planning for Agricultural Land Use in Australia". In summary, the thrust was that in this technological age, changing land use patterns are rapid, drastic and complete. While the rural scene seemed stable in the horse and buggy days - that was no longer the case. With regard to road reserves it was pointed out that pressures ~~exist~~ which mitigated against them remaining attractive conservation features:



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*"Some roads today [1969] in Australia contain the only remnants of local flora because nearby farmland had been cleared completely. The continuing problem is that services such as electricity, telephone, drains, gas and fuel, and of course the road pavement all use the road reserve. In recent years roadside verges have been burnt as firebreaks by the appropriate authority. This destroys the perennial vegetation, shrubs and trees, and the road verge become more a fire hazard because of the replacement of the perennial vegetation by exotic grasses which dry completely in the summer."*

That was (a quarter of a century ago), and still is, pretty much the situation for most of agricultural Australia - excepting for Western Australia's post WWII "new land" settlement districts! Here, there was an earlier realisation that the standard one chain (20 m) wide road reserve was too narrow to accommodate multiple uses of modern road needs, plus public utility services such as telephone and power lines - and conservation.

It was the old Country Road Boards Association (forerunner to the Country Shire Councils Association) that initiated State Government policy of having wide road verges to provide space for roadside conservation. This occurred at the close of WWII at its meeting in 1945. A motion put forward by the Perenjori Road Board - that rural road reserves be made two and more chains wide to aid soil conservation - was adopted by the meeting and transmitted to the State Government. In turn, the concept was adopted by the government and became general policy within the Lands Department for new road gazettals in agricultural districts. This was a very important step at an opportune time - as post-war rural reconstruction in WA involved a massive expansion of its agricultural region, and embarkation of opening up "a million acres a year", of new farmland through the 1960's!



It was the rapid clearing of farmland at this time, along with expansion of the telephone (overhead lines in those days) and electricity reticulation in rural areas, plus the widening of road pavements - that brought about growing community concern about the loss of bushland and particularly wildflower displays. This public reaction prompted Premier David Brand, noted for his keen interest in wildflowers and tourism, to initiate a conference of government officials and community interests to come up with solutions. In the field of road verge conservation, this resulted in expansion of the policy of having **wide road verges** in agricultural areas to conserve roadside flora.

The history of wide road reserves for conservation is elaborated on in the next section of this paper. It has been extracted from a manual on roadside management by the State Government's Roadside Conservation Committee. What is important to appreciate here is that road verges, and particularly those of wide road reserves, were not set aside as sources of road construction material. Wide road reserves were created initially for soil conservation reasons and, more recently for flora conservation. **Using verges as sources of gravel is contrary to this long-established government conservation policy.**



## HISTORY OF WIDE ROAD RESERVES IN WESTERN AUSTRALIA

The majority of wide road reserves in rural areas of Western Australia were deliberately created as part of government policy to preserve Western Australia's indigenous flora.

A "two-tier" system of reservation has been adopted. Discrete areas were set aside and dedicated as reserves for the "Conservation of Flora". These are now mostly Nature Reserves under the control of the Department of Conservation and Land Management.

But it was seen that this was not enough. The reserves would become islands in a sea of farmland. In addition, people liked to go on wildflower drives looking at the flora along the roadside and there was concern that when narrow roads were widened, roadside flora would totally disappear.

Consequently, road reserves were surveyed wider than necessary for traffic purposes, in order that the extra space could become a conservation reserve.

Thus, Western Australians have two types of area reserved for wildflower protection - Nature reserves and wide road reserves.

The Roadside Conservation Committee believes that it is timely to remind road managers and the general public that the reason wide road reserves have been dedicated, is for the preservation of Western Australia's wildflower heritage. This government policy was first implemented in 1952 and remains in force today.

### *Early Days*

As Western Australia grew and developed, various voices were raised urging the government to reserve sufficient areas to preserve the wildflowers for posterity.

In the official Centenary Book for Western Australia "A Story of a Hundred Years" (1929) Mrs Emily Pelloe, a noted amateur botanist, wrote:

*It may be that in 2029, regret will be expressed that so little effort was made as far back as 1929 to ensure the preservation of the rare and beautiful flora. To deny future generations the right to enjoy its wonders is to deserve the censure of the unborn.*

In the same publication, in the chapter entitled "Wheat: the State's Premier Industry" Mr G L Sutton, the Director of Agriculture wrote:

*So great has been the desire of the settler to conquer the forest and produce crops that far too little timber has been left for the purposes of shade, shelter, and firewood. This defect is recognised by many of the later settlers, who are leaving clumps of trees in the paddocks as well as strips of uncleared land, one chain or more wide, on the boundaries of their paddocks. This practice is most desirable and should become general. It adds alike to the usefulness and the attractiveness of the holding.*

Even earlier than this, the need to preserve attractive drives had been recognised by setting aside reserves alongside roads through the magnificent Karri forest. What is now Sir James Mitchell National Park and parts of the Pemberton National Parks are merely wide road reserves, where the traveller can experience in full the towering magnificence of the mature uncut Karri.

### *Post War Era*

After the Second World War, car ownership increased dramatically, and so did concern for the preservation of wildflowers. Almost without exception, it was the loss of displays along roadsides which aroused most concern. The newspapers of the late 1940s and 50s contain numerous letters and articles warning about destruction of wildflowers, mainly in the Perth region and the south-west.



Parliament was aware of the concern, and when the Native Flora Protection Act was amended in 1950, it included a clause protecting all wildflowers or native plants one mile (1.6 km) on either side of the Kalamunda-Mundaring Weir Road.



Wider roadside protection was consistently advocated, for example, on 15/10/1952, Mr Frank Guthrie, the Member for Bunbury, asked the Minister for Forests: "Will he investigate the possibility of amending the Act affected so as to provide that a half-chain (10m) on each side of all main roads be preserved in its natural state, with all its wildflower life and natural growth, so as to preserve in perpetuity the unique and wonderful displays of wild flower life and indigenous plant life in this State?"

The Minister replied "Consideration would be given to proclaiming areas half a chain wide on each side of specified main roads."

The then Minister for Lands, the Hon Lindsay Thom, took the necessary action within his Department to ensure that some land was set aside for the preservation and growth of shrubs and sandplain flowers along certain highways and other roads, particularly those passing through light land areas.

### ***The Role of Premier David Brand***

When the Hawke government was replaced in 1959, the incoming Premier, David Brand, also undertook the Tourism Ministry because of his intense interest in the subject. He held lands in the West Midlands, and believed that wildflowers were the basis on which a tourist industry could be founded.

He wrote to the Minister for Lands, the Hon Stewart Bovell, on 30 April 1959 expressing his concern at the rate at which wildflowers were being destroyed in agricultural areas particularly with the increase in the area of light lands being placed under cultivation. He asked that consideration be given to the possibility of making it a condition of sale that a strip of one chain (20m) adjoining roads should not be cultivated but should be preserved in its natural state.

The Minister for Lands replied that the proposal was a good one, particularly as it would ensure that the vegetation was protected inside the fence, making it more difficult for the travelling public to interfere with flowers, etc. However, there were drawbacks with farmers still wishing to plough firebreaks to protect fences, crops and pastures and a restriction on cultivation would not prevent the grazing of stock, which would in time totally destroy the wild flowers, most of the scrub and much of the timber. Also, he thought that such a provision would be difficult to police.

He added that in subdivisions of light land, roads were laid out to a minimum width of three chains (60m), some five chains (100m), and even up to ten chains (200m) in order to preserve a strip of natural vegetation on each side of the road, and help prevent soil erosion. The Minister for Lands did not think that there were many light land blocks then available which were surveyed with the old one chain road.

He was of the opinion that the system of surveying wide roads met the situation satisfactorily, especially when taken in conjunction with the policy of making a liberal provision of reserves.

The Premier replied expressing his satisfaction that the policy of surveying wide roads met the objectives he had in mind, but he also queried whether some farmers were not, in fact, ploughing outside their boundaries.



The direct result of the Premier's query was a notice attached to all Conditional Purchase leases pointing out the need for farmers to confine their activities to land owned or leased by them.

*"The attention of land holders is directed to the need to confine their farming activities within the area owned or leased by them. Roads, in many instances, have been surveyed to a greater width than the normal one chain for the express purpose of protecting the growth of shrubs, wild flowers and trees. It is therefore essential that no trespass be made by ploughing or otherwise working land contained in roads, reserves, or other Crown Lands."*

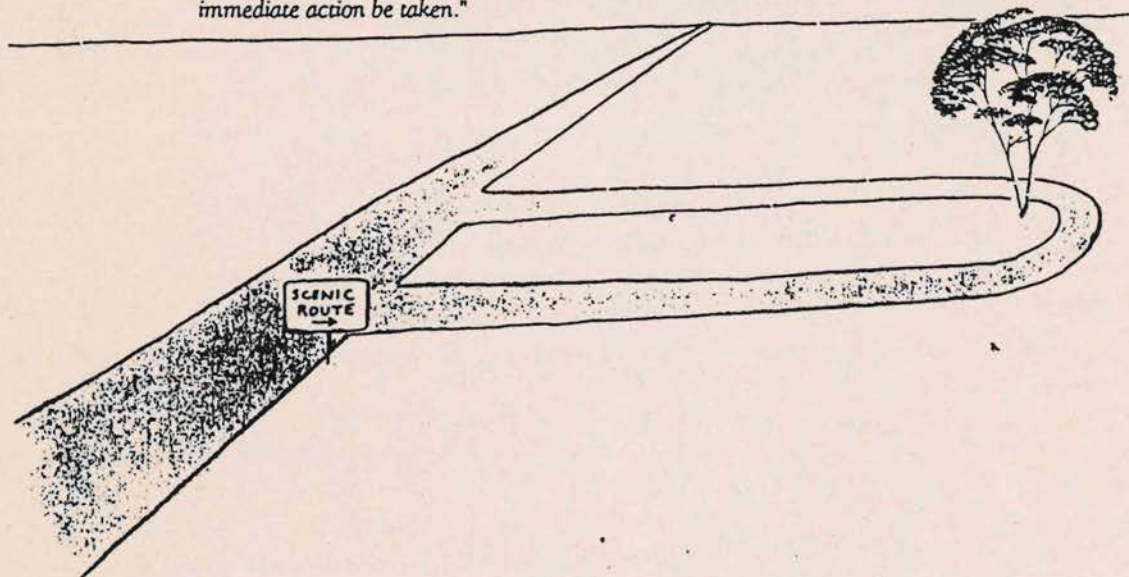
In another development, the Surveyor General instructed two surveyors to make a quick reconnaissance along main roads in the SW Land Division to ascertain which land alongside the roads was suitable for reservation for wildflower protection. The trips were undertaken during the 1960 wildflower season and detailed reports were submitted.

What is now called Hassell National Park resulted directly from this exercise, as well as the wide road reserve along the Newdegate-Lake Grace Road. Frank Hann National Park and the "Protected Flora" designation on the Southern Cross-Yellowdine section of the Great Eastern Highway and the Ravensthorpe-Hopetoun road also flowed on from this (the latter two on the recommendation of the Tree Society).

The Dept. of Lands and Surveys also urged Main Roads Department to purchase uncleared conditional purchase lease land along roads in areas important for wildflower conservation, such as the Wubin-Mullewa Road, and between Marchagee and Watheroo. This latter is now the extremely biologically significant Marchagee sandplain corridor (see photo on p.1.1).

The Surveyor General wrote to his Minister on 9th December 1960:

*"In recent years much has been said and written concerning our wild flowers, and I am firmly of the opinion that we should take steps before it is too late to protect the vegetation to a reasonable depth along our main roads. This vegetation is disappearing quickly and it is imperative therefore that immediate action be taken."*



The 1961 Wildflower season came around, and a huge spate of letters and articles hit the press. There were over 20 items on wildflower conservation during October and November of that year!



The Premier reacted and on 4th December 1961 the matter of wildflower protection was discussed in Cabinet. It was decided to convene a "Conference" on the Preservation of Wildflowers in WA.

This was held on 15 December 1961 and was chaired by Mr R H Doig (Undersecretary, Premier's Dept. and Chairman, Tourist Development Authority). There were 16 members, all at a senior level in their appropriate Departments. The public interest was represented by delegates from the Country Shire Councils' Association, the Tree Society, the National Trust and the Wildflower Society (President, in each case).

The Conference looked at five points, of which 2(b) is of interest to road managers:

Item 2 - The availability of greater areas in which wildflowers could grow and flourish -

- (a) by having more wildflower reserves: and
- (b) by having wider roads (both main roads and roads in local areas).

As a result of the conference and subsequent deliberations, the following recommendations (among others) were submitted to Cabinet in July 1962:

- ❖ That where new roads are constructed through alienated land, a minimum road width of 5 chains (100m) should be adopted.
- ❖ That where new roads are constructed through Crown land, and the country is suitable for flora preservation, a minimum road width of 10 chains (200m) should be adopted.
- ❖ That an investigation be made into the width of existing road reserves to ascertain what portions of these reserves could be widened to encompass areas suitable for preservation of flora.

Cabinet agreed to the recommendations and the agreement was signed by the Premier on September 17, 1962.

### **CSCA** **Country Shire** **Councils' Association**

However, roadside wildflower destruction continued; and so did agitation in the Press. At the specific request of the Premier, the Minister for Lands wrote to the CSCA, in September 1964, seeking the support of country Shires for wildflower protection. The letter reads, in part:

*"In planning new subdivisions, the Lands Department creates Flora reserves by setting a minimum width of roads at three chains; and in some areas, widths of roadways extend from five to ten chains. When approvals are given to leases under conditional purchase, a special attachment is put on the papers, drawing attention to the necessity not to trespass on Crown lands, roads and reserves for the purpose of ploughing or otherwise working the land contained in these reserves."*

He added that in order to have an effective policy to preserve roadside verges, the CSCA should be made aware of the need to preserve flora as far as possible, consistent with the need for adequate fire protection.

The letter was read at the CSCA Executive meeting in September 1964 and its contents noted.

Despite this explicit government intention, destruction of roadside wildflowers continued. In 1968, the National Trust compiled a "Verge Report" which it submitted to the Premier. This led directly to the formation, in 1969, of the first Road Verge Conservation Committee.

Its successor, the Roadside Conservation Committee, formed in 1985, is continuing to work towards the preservation of wildflowers along roadsides.



## *Present Attitudes*

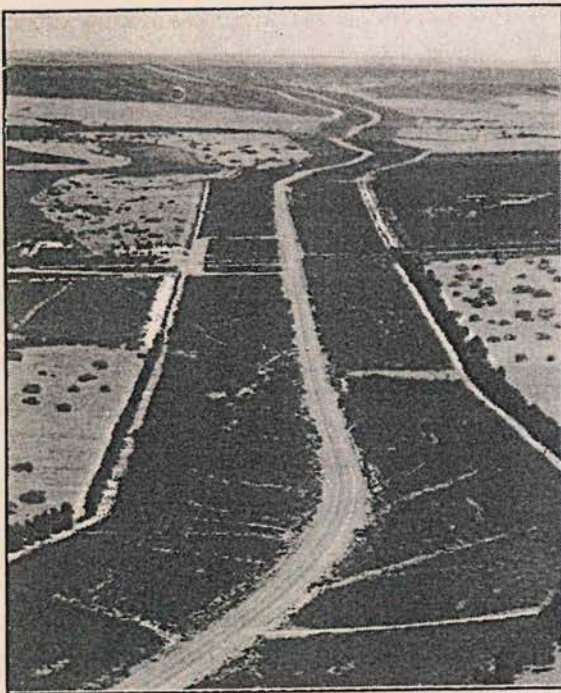
It is timely to remind people exactly why wide road reserves were created.

They are part of a government policy to create reserves for the preservation of wildflowers, and as such, all the area outside the designated construction and maintenance zone should be managed for flora conservation.

## **RCC** *Roadside Conservation Committee*

Because of the difficulty of managing these linear reserves, the RCC is drawing up guidelines to help road managers with this task.

But firstly the understanding needs to be firmly established that WIDE ROAD RESERVES WERE CREATED FOR CONSERVATION. The need to manage them for this purpose follows on from that. It is the responsibility of all Western Australians to act so as to preserve our wildflower heritage for all time.



*Sir David Brand was a distinguished Premier of the State, serving in that office for nearly 12 years and representing the Greenough electorate for nearly 30. It is fitting that the Brand Highway has been named in his honour. It passes through the electorate of Greenough, was planned during his period as Premier, and was surveyed as a wide road reserve specifically to conserve roadside flora, before adjoining land was opened up for farming.*

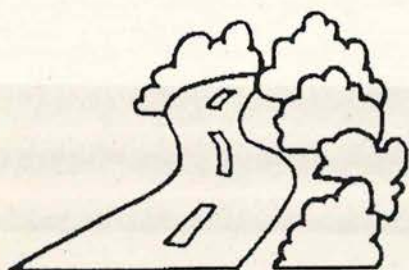
## **ROADSIDE CONSERVATION COMMITTEE**

The present Roadside Conservation Committee (RCC) was formed by the Burke Labor Government in 1985. Initially called the Roadside Vegetation Conservation Committee, its title was later shortened. It replaces an earlier WA Government Road Verge Conservation Committee (RVCC), which the Brand Government originally formed in 1968 in response to continuing public concern and criticism over roadworks and public utility works "vandalism" and poor management of roadside vegetation. Both the National Trust of Australia (WA) and the Tree Society were in the vanguard in this aspect.

After presenting a major report in 1970, and having its recommendations adopted by Cabinet, the original RVCC was retained to pursue the implementation of these recommendations. When checking on the Committee's performance in 1974/75 (through a series of Parliamentary Questions) the Conservation Council was re-assured. However, toward the end of the 1970's it was clear that the RVCC was ineffective. This particularly came to light when it produced a report for WAY'79 (WA's sesquicentennial celebration) which was two years late for a start, and attempted to gloss over its general lack of achievement.



At the time the Conservation Council was reviewing the RVCC's performance in the early 1980's, the Committee had ceased to meet. The Conservation Council's review identified the basic problems of its demise being a lack of resources. Firstly, no funds being available to carry out initiatives; and secondly, no staff to carry out action decided on at meetings. It was also clear that the RVCC's misplaced priority was the concentration of its interests on the Main Road and Highway system - when the major problems of roadside management were in fact with local government roads.



The present RCC has focussed on the management of local government road verges. Its principal achievement in this area is the production and issue of a Roadside Manual - which the section of these notes on 'the history of wide road verges' is a part. The Committee's other major thrust has been to initiate a systematic survey of local authority road verges, using volunteers, with the objective of mapping the verge condition to assist local governments with management decisions. To date, some 20 000km of roads have been covered. The present Committee has now reached a stage where it has decided to review its performance and consider its future and directions.

## CONCLUSIONS

Since the beginning of the 1980's, there has been an increasing scientific realisation worldwide that vegetated corridors (eg road and rail sides, rivers and streams) serve a very important role in ecosystems fragmented by agricultural clearing, forest clear-felling, and urban expansion. Australia is one of the leaders in gathering this information. In turn, there is a growing community and government awareness of the need to establish and maintain conservation or "bush" corridors.

Examples of this awareness include the WA Bush Fires Boards notes on CARE OF ROADSIDE VEGETATION (1985); international conference on conservation corridors held in WA (1989 - at Busselton, initiated by CSIRO/CALM); numerous Landcare projects now establishing vegetation corridors to connect bushland remnants. At the regional planning level, in the 1990's the need to establish and maintain road verges and other corridors is being acknowledged - eg Peel Regional Plan (draft 1990), Albany Region Rural Structure Plan (draft 1991), Bunbury-Wellington Region Plan (draft 1993). The concept of vegetation corridors has, more recently, been promoted by politicians - as though recommendations made by the 1991 Legislative Assembly Select Committee into Land Conservation.

Finally, perhaps the most significant recent examples of public acceptance that well-vegetated roadsides have a valuable conservation role are

- a national strategy is currently being developed on 'Maintaining the Resources on Roadside Reserves' - with the objective of expanding national recognition for the values of roadside corridors.
- the concept of conservation corridors has been incorporated into education curriculums, as demonstrated by the 1993 WA Tertiary Entrance Examination biology paper which had a specific question regarding the role of road verges and the implication to the road manager.