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THE PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

R E P O R T

relating to the proposed construction of the

TOP SPRINGS TO WAVE HILL ROAD,

NORTHERN TERRITORY

For Senator Frowse.

I present the Reports of the Parliamentary
Standing Committee on Public Works relating to the
following proposed works :-

R.A.A.F. Academy, Point Cook, Victoria

and

Top Springs to Wave Hill Road, Northern
Territory.

23rd March, 1965.

*Link
with
Table
on 23. 3/65
[Signature]*

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PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS
TOP SPRINGS TO WAVE HILL ROAD, NORTHERN TERRITORY.

R E P O R T

By resolution on 19th August, 1964, the House of Representatives referred to the Parliamentary Standing Committee on Public Works for further consideration and report, the proposal to construct a road from Top Springs to Wave Hill in the Northern Territory. The Committee have the honour to report as follows :-

PREVIOUS REFERENCE

1. The proposal for the construction of a road from Top Springs to Wave Hill was first referred to the Committee in November, 1962.
2. The work which comprised the initial reference was part of a beef roads scheme in the Northern Territory approved by Cabinet in July, 1962 and which was estimated to cost £4,570,000. As approved by Cabinet, the road between Top Springs and Wave Hill was to follow the route of the existing pastoral road past Camfield homestead, the distance estimated at that time being approximately 115 miles. Evidence given to the Committee included a preliminary estimate of £800,000. This was increased to £1m. following a more detailed examination of the work involved.
3. An alternative alignment east of the existing road through better road-making country was proposed to the Committee at an estimated cost of £600,000. The distance between Camfield homestead and this route was about 30 miles. Evidence given to the Committee by representatives of the Departments of Works and Territories was based on this route. The distance on this route from Wave Hill to the junction with the road from Dunmarra to the Western Australian border, at a point south-east of Top Springs, was about 110 miles.
4. As the Committee's inquiries progressed, a further alternative route was proposed which would have brought the road to within 18 miles of Camfield homestead. The cost of this alternative route was also £600,000.

5. At the time the beef roads scheme was initially approved, the natural outlet of cattle from the Victoria River district was through fattening areas to the east, including Queensland. It was logical, at that time, that the main movement of stock from the area should be easterly through Dunmarra on the Stuart Highway. The junction of the road from Wave Hill with the Dunmarra to Western Australian border road at a point south-east of Top Springs was therefore no disability and there was something to be said for the more easterly route if the saving in the cost of the road was as significant as claimed.

6. However, the Committee felt that the alignments, distances and estimates given were not as precise as they may have been and that, bearing in mind the costs involved, there was an absence of firm decisions on the views to be adopted towards lessees and others affected by the route of the road.

7. The evidence was discussed by the Committee at length over a considerable period culminating in the tabling in the House of Representatives of a report in which the Committee recommended "..... that it is not expedient to proceed with the Top Springs to Wave Hill Road in its present form."

EVIDENCE

3. The Committee reviewed the evidence given on the occasion of the previous reference. We then took evidence from representatives of the Departments of Territories, Works and National Development and the Manager of the abattoirs at Katherine, Northern Territory.

THE BEEF ROADS SCHEME

9. The beef roads programme approved by Cabinet in 1962 included two roads in the Northern Territory in the Victoria River district. These ran from Dunmarra on the Stuart Highway through Top Springs, Victoria River Downs and Timber Creek to the Western Australian border and from a point on this road near Top Springs to Wave Hill. The intention was that these roads would provide for the transport of cattle via the Barkly Highway to Queensland, to the Wyndham meat works or to areas served by the Stuart Highway. The roads had a secondary role as improved links in the main

interstate highway network. The plan is, ultimately, to extend the Top Springs to Wave Hill road westward beyond the latter point to Inverway and thence into Western Australia.

10. Aim of the Scheme. The beef roads scheme aimed to provide lessees with better access to outlets and to enable cattle to reach their destinations in better condition and at a younger age than previously. It was expected that the increased turn-off that would result from the construction of the roads would enable additional improvements to be made to leases and herds, thus producing better cattle and consequently more and better quality beef.

11. Direction of Cattle Movement. At the time the scheme was approved and at the time of the previous reference, the abattoirs at Katherine and Darwin were not fully operational and the likely effect of those works on the movement of cattle from the Victoria River district was not fully appreciated. The previous reference was based on an assumption that for a majority of cattle the traditional pattern of movement towards Queensland would continue. With the completion of these abattoirs and particularly those at Katherine, it is now clear beyond doubt that the destination of most of the turn-off from the Victoria River district will be the Katherine abattoirs. Cattle from the area between Top Springs and Wave Hill will thus move north-east through Willeroo to Katherine.

12. Katherine-Willeroo-Top Springs Road. Since the initial approval was given for Northern Territory beef roads in 1962, and the opening of the Katherine mentworks, approval has been given for the upgrading of beef road standard of the road between Katherine and Top Springs via Willeroo. This road is not to be referred to the Committee for examination.

THE PRESENT REFERENCE

13. The Existing Road. The existing road generally traverses undulating black soil country with two short hilly sections. The water courses which it crosses are in the catchment of the Victoria River. The principal streams crossed are the Townshend and Camfield Rivers.

14. The road has been constructed as an earth formation on a surveyed alignment for 61 miles from Top Springs to a point nine miles south of the Camfield River. Some short sections have been gravelled and a low level concrete crossing has been constructed at the Camfield River. From nine miles south of the river to Wave Hill, there is only a track.

15. The Proposed Route. At its southern end, the proposed road is to terminate between the Wave Hill homestead and the Victoria River. At this point it will be suitably placed for a permanent crossing of the Victoria River should it be decided in the future to extend the road to Inverway and Western Australia. At its northern end, the road will have a common junction on the Dunmarra to Western Australian border road with the proposed Katherine-Willeroo-Top Springs road. The distance from Wave Hill to Katherine via Top Springs and Willeroo on this route will then be up to 20 miles shorter than if the more easterly road from Wave Hill to Top Springs were constructed.

16. From Wave Hill to near Camfield, the road will be on a new alignment close to the existing track. From there to the Top Springs end it will be on the existing route except where deviations are desirable, such as to obtain most suitable crossings of the Townshend and Camfield Rivers and to obtain better road building country on the limestone plateau south of the Armstrong River.

17. The length of the road on the proposed alignment from near Wave Hill to the junction near Top Springs is approximately 100 miles.

18. Change of Route Reasons given in evidence to the Committee for the preference of the road on the route of the current proposal over the more easterly route were :-

- (a) It provides a more direct connection between Wave Hill and Katherine via Camfield, Top Springs and Willeroo for most of the turn-off for the Victoria River district. The overall saving in distance between Wave Hill and Katherine over the route now proposed, including some saving on the Top Springs to Katherine section is estimated to be up to 20 miles;

- (b) It is closer to the area where increased turn-offs may be expected in the future, either as a result of increased carrying capacity or through subdivision of existing leases or creation of additional leases.

Furthermore, if the easterly road had been constructed, it may have been necessary for the Northern Territory Administration to provide an access road to it from Camfield homestead and to maintain the pastoral road between Top Springs and Camfield.

19. Standard of the Proposed Road. The road is to be constructed on a permanent alignment suitable for traffic by cattle transports and other vehicles conforming to the permitted weight and dimensional limits. It will be trafficable at all times except for a few days at a time during wet weather. The alignment would be for design speeds of 60 miles per hour reduced possibly to 50 miles per hour in hilly sections. Design is to be in accordance with the Policy for Geometric Design of Rural Roads of the National Association of Australian State Road Authorities.

20. Permanent drainage structures will be provided where necessary in the form of bridges, culverts, floodways and inverts, permitting crossing of streams without reduction of speed, except where the water is above road level on the crossing. Bridges will be built only on the major streams and will be submersible single lane bridges.

21. Within a road formation width of 26 feet, the pavement would be compacted gravel or sand clay, normally 18 feet wide. Off the road parking areas would be provided at intervals of about 10 miles.

22. Natural gravel suitable for the construction of road pavement between Top Springs and the Townshend River would be available within about five miles of the road. Between the latter point and Wave Hill, the haulage distance may be as much as 30 miles, unless natural gravelly material which occurs in the black soil country is suitable.

23. Cost. Based on aerial photography, site reconnaissance and surveys including those carried out for past improvement of the pastoral road, it has been estimated that the cost of the construction of the proposed road to beef roads standard will be of the order of £1,100,000.

24. Priorities. With the establishment of the pattern of movement of cattle from the Victoria River district towards the Katherine abattoirs, it is clear that the sections of the road nearer to Katherine will be more intensively used than those remote from it. The Committee believe, then, that if for budgetary or other reasons it is necessary to allocate priorities, the sections of the Katherine-Willeroo-Top Springs-Wave Hill road nearer to Katherine should be developed to beef roads standard first. Subject to this consideration, the Committee recommend the early construction of a road to beef roads standard between Top Springs and Wave Hill on the route now proposed.

ROAD SURFACING

25. Maintenance Problems. The Committee were told that the maintenance of unsealed roads in the Northern Territory to a good standard suitable for cattle cartage and general traffic is difficult particularly in the more remote areas.

26. Experience with beef roads constructed so far has been that, even with low traffic volumes, unsealed roads deteriorate rapidly because of the effect of climatic conditions on surfaces constructed of local materials. The fine material of the pavement is blown away as dust and the coarser material works off the road resulting in loss of pavement depth. Resheeting then becomes necessary.

27. Corrugations, which build up again rapidly after being graded out, increase vehicle operating costs and the extremely dusty nature of unsealed roads results in serious hazards to traffic and loss of cattle through dust asphyxiation and associated causes. Cattle transport charges on gravel roads are dearer than on sealed surfaces.

28. In the expectation that it would reduce the development of corrugations and minimise dust, the Department of Works has been requiring tighter pavement compaction than has been the normal practice elsewhere in Australia. It has been found, however, that the improvement has not been permanent.

29. Consequently the Department has been studying the practicability of applying a bituminous surface to beef roads and, in the light of

recent experience, recommends the sealing of these roads at a much earlier stage than was contemplated previously.

30. Economic Advantages of Sealed Roads. Apart from the direct saving in maintenance costs, the advantages which would accrue from the sealing of beef roads can be summarised as -

- (a) a saving in transport costs;
- (b) removal of the menace of dust asphyxiation to cattle travelling in road transports; and
- (c) minimising other causes of cattle losses in transit.

31. The first of these points is self-explanatory. On the second and third, the Committee were told of a mortality rate of up to 15 per cent in certain consignments of cattle arriving at the Katherine abattoirs from the west after travelling over gravel roads and tracks. The prime cause of death was dust asphyxiation and was particularly noticeable in cattle carried in the rear trailers of road trains.

32. The dust nuisance is also a contributory cause together with uneven road surfaces in losses from other causes. When a beast falls to the floor of the transport from the standing position, the packing of the transport is upset. Bruising and hornng then often occurs, the end result being condemnation of meat after slaughter.

33. Cost. The Department of Works has estimated the cost of sealing a 12 feet width of the proposed road from Top Springs to Wave Hill at £250,000.

34. Priorities. The Committee recognises that the question of sealing the Top Springs to Wave Hill road is not part of the present reference and, further, that any consideration of the matter must take account of the needs of roads in other areas particularly those subject to more intensive use, for example, the road between Katherine and Willeroo. Nevertheless the Committee believe that real and worthwhile benefits will result from sealing of beef roads particularly having regard to the deterioration of new beef roads in the area. The Committee recommend that subject to the needs of other beef roads, the road between Top Springs and Wave Hill be sealed.


CONSTRUCTION PROGRAMME

35. On the assumption that an approval to proceed is given in the next three months, detailed design and tender documents could be completed to enable tenders to be called and a contract let by January, 1965. Construction would be completed about January, 1968. Some sections of the road could be used before this date as they are progressively completed.

RECOMMENDATIONS AND CONCLUSIONS

36. The summary of the recommendations and conclusions of the Committee is set out below. Alongside each is shown the paragraph in the report to which it refers. Recommendations appear in bold type.

- | | Paragraph |
|---|-----------|
| 1. The Committee believe that if for budgetary or other reasons it is necessary to allocate priorities, the sections of the Katherine-Willeroo-Top Springs-Wave Hill road nearer to Katherine should be developed to beef roads standard first. | 24 |
| 2. THE COMMITTEE RECOMMEND THE EARLY CONSTRUCTION OF A ROAD TO BEEF ROADS STANDARD BETWEEN TOP SPRINGS AND WAVE HILL ON THE ROUTE PROPOSED IN THIS REFERENCE. | 24 |
| 3. The Committee believe that real and worthwhile benefits will result from the sealing of beef roads. | 34 |
| 4. THE COMMITTEE RECOMMEND THAT, SUBJECT TO THE NEEDS OF OTHER BEEF ROADS, THE ROAD BETWEEN TOP SPRINGS AND WAVE HILL BE SEALED. | 34 |
| 5. The estimated cost of constructing the Top Springs to Wave Hill road to beef roads standard is £1,100,000. The cost of sealing has been estimated at £250,000. | 23, 33 |


(W.J. Brimblecombe)
Chairman.