

## Road & Recreation Asset Management Section

# Point Score System and Program for Rural Unsealed Road Construction

2004/05

## Rural Unsealed Road Construction

### Objective:

- to construct and seal rural unsealed roads to agreed standards and community needs.

### Strategies:

- adopt a points score system to allocate scarce funds in a logical, transparent and equitable manner.
- limit the annual program to two (2) projects of approximately equal value.
- build a discount rate into the points score system to ensure that one road does not dominate the program.

### Purpose

- To provide a logical method of prioritising the large number of projects in the program.

### Benefits

- Delivers a logical, transparent and equitable system of allocating funds.
- Allows forward planning and time to carry out investigation & design.
- Provides stakeholders with knowledge of when projects will be constructed.

### Methodology

- Criteria: set assessment criteria that are relevant and can be easily scored.
- Weighting Factor: assign a weighting factor to each element of criteria to reflect its importance. (e.g. traffic volume has a higher weighting than milk tanker route)
- Points Score: allocate an easily measurable score for each criteria for each project. (e.g. for school bus route, yes = 5 points and no = 1 point)
- Total Score: multiply *weighting factor* x *points score* and sum all these products for each project. The total score prioritises/ranks the projects in the program.

## Implementation Strategy

- Compile a comprehensive list of projects and calculate the total point score for each.
- List all projects in priority order, as per their points score, and prepare a preliminary estimate for each.
- Schedule works according to expected annual budgets.
- Lock in Year 1 as the current construction program.
- Lock in Year 2 as the current design program.
- Conduct an annual rolling review with update. Roll forward Year 3 to Year 2 and so forth.

## Rural Unsealed Road Construction Weighting Factors (10)

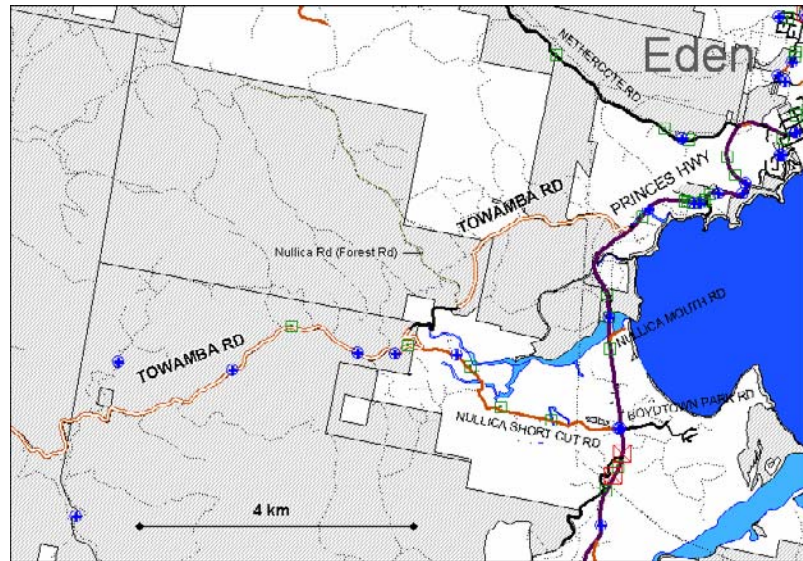
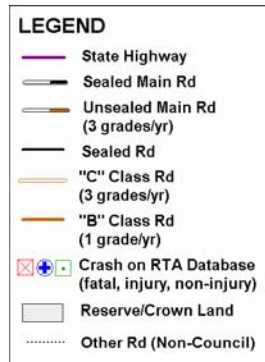
1. Daily Average Traffic: weighting = 25  
(sliding score: from DAT>276 = 10 points to DAT<50 = 1 point)
2. Crash History/Safety: weighting = 20  
(points score: crash history = 5, alignment = 3, pavement = 1)
3. Environment/Land Impact: weighting = 15  
(points score: dust/houses =5, cropping/silt =3, pasture/forest =1)
4. Area Committee Priority: weighting = 10  
(sliding score: from highest = 5 then 4,3,2,1....)
5. Terrain/Benefit/Cost: weighting = 10  
(points score: flat =4, undulating =3, hilly =2, mountainous =1)
6. Tourist Destination: weighting = 10  
(points score: major destination = 5, minor destination = 4, designated route = 3, no tourism = 1)
7. School Bus Route: weighting = 10  
(points score: yes = 5, no = 1)
8. Milk Tanker Route: weighting = 5  
(points score: yes = 5, no = 1)
9. Maintenance Benefit: weighting = 5  
(points score: rocky country = 5, shale = 3, granite = 1)
10. Village Access: weighting = 5  
(points score: yes = 5, no = 1)

### Summary and maximum possible point score

Criteria	traffic	safety	enviro	area c	terrain	tourist	s bus	tanker	mntnce	access	Total
Weight	25	20	15	10	10	10	10	5	5	5	Max
Max Score	10	5	5	5	4	5	5	5	5	5	Score
Product	250	100	75	50	40	50	50	25	25	25	<b>690</b>

## Example Points Score Calculations

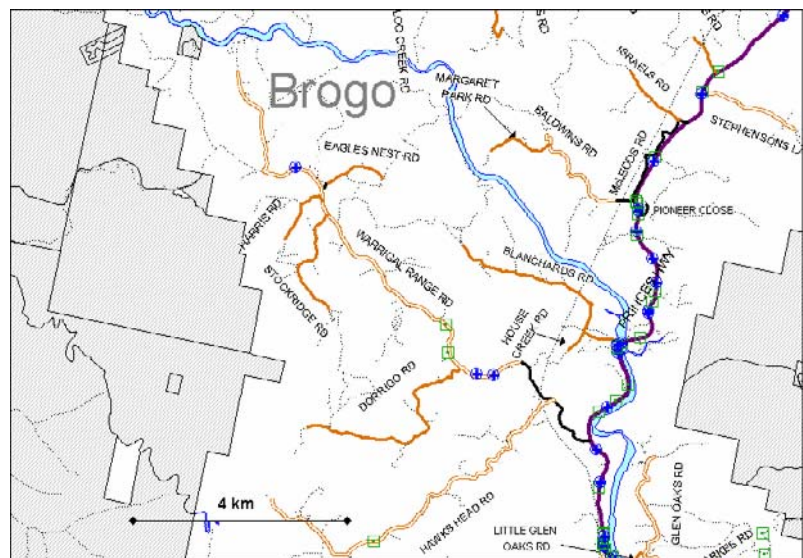
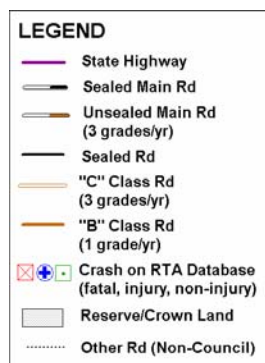
Towamba Rd  
Princes Hwy to  
Nullica Forest Rd



Towamba Rd - SH1 to Nullica Forest Rd

Criteria	traffic	safety	enviro	area c	terrain	tourist	s bus	tanker	mntnce	access	Total Point Score
Weight	25	20	15	10	10	10	10	5	5	5	
Max Score	8	3	5	3	2	3	5	1	3	5	
Product	200	60	75	30	20	30	50	5	15	25	<b>510</b>

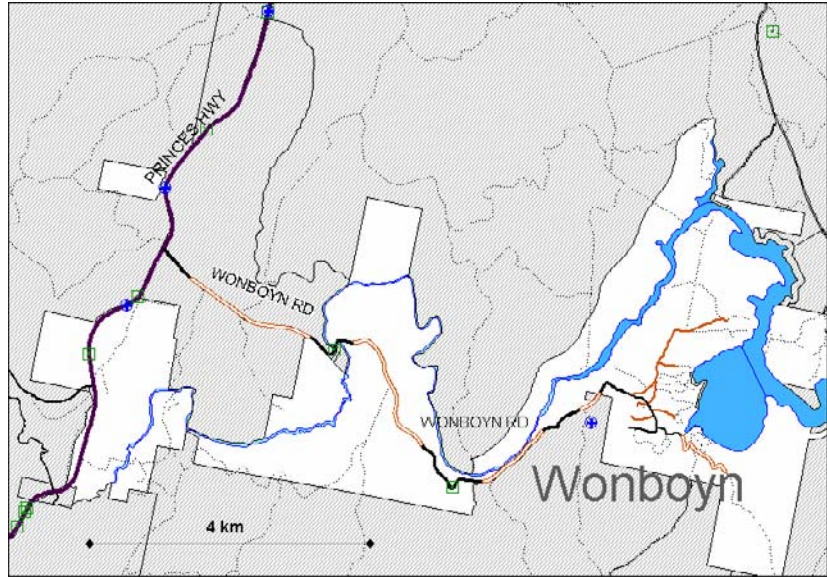
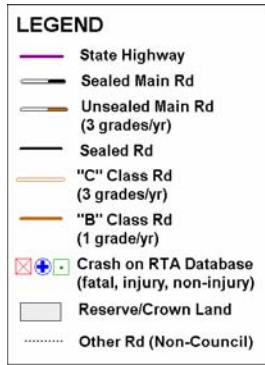
Warrigal Range Rd  
Hawks Head Rd to Dam



Warrigal Range Rd - Hawks Head Rd to dam

Criteria	traffic	safety	enviro	area c	terrain	tourist	s bus	tanker	mntnce	access	Total Point Score
Weight	25	20	15	10	10	10	10	5	5	5	
Max Score	7	5	1	4	2	4	5	1	1	1	
Product	175	100	15	40	20	40	50	5	5	5	<b>455</b>

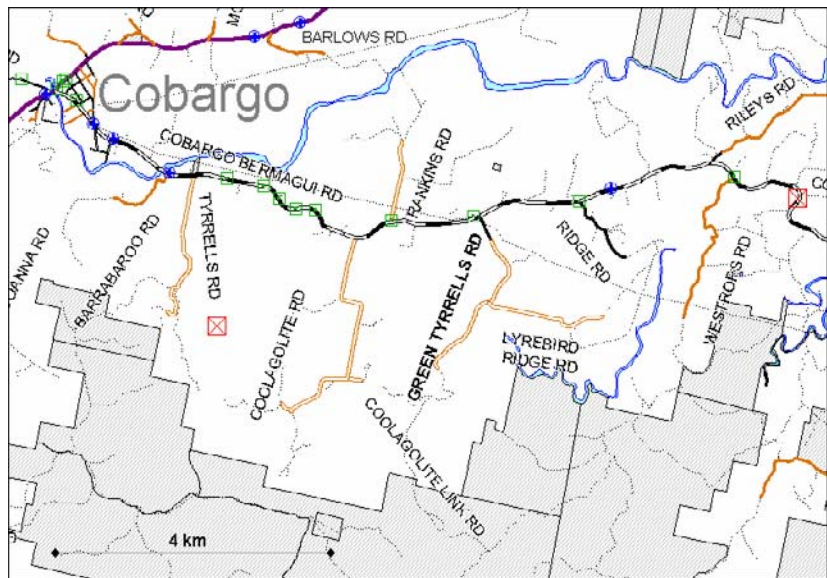
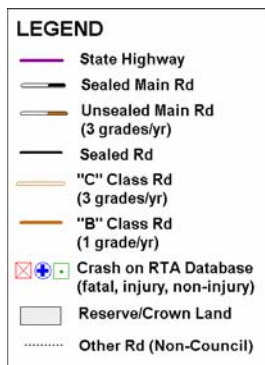
### Wonboyn Rd gaps



### Wonboyn Rd - gaps

Criteria	traffic	safety	enviro	area c	terrain	tourist	s bus	tanker	mntnce	access	Total Point Score
Weight	25	20	15	10	10	10	10	5	5	5	
Max Score	6	1	1	4	3	5	5	1	3	5	
Product	150	20	15	40	30	50	50	5	15	25	<b>400</b>

### Green Tyrrells Rd



### Green Tyrrells Rd

Criteria	traffic	safety	enviro	area c	terrain	tourist	s bus	tanker	mntnce	access	Total Point Score
Weight	25	20	15	10	10	10	10	5	5	5	
Max Score	2	1	1	1	3	1	5	5	3	1	
Product	50	20	15	10	30	10	50	25	15	5	<b>230</b>

## Discount Rate Modified Points Score System

### Discount Rate Objective:

- to ensure that one road does not dominate the program.

### Discount Rate Strategies:

- set the maximum limit of a road's allocation in any one year to half of that year's program budget.
- retain incomplete stage-constructed projects in the program but reduce their points score by the discount rate after they have received an allocation.
- return discounted points to a project incrementally, by each year giving back a proportion of the discount (25% discount over 5 years is returned at the rate of 5% p.a.).

## Rural Unsealed Road Construction Program

2004/05