

NETWORK SAFETY ASSESSMENT

The identification of safety risks on the Local Roads of Regional Significance (LRRS) network is an increasingly essential part of the program development process.

Regional Road Group (RRG) members have been actively encouraged to adopt a more proactive approach to the management of road safety related risk.

Due to the variety of network characteristics present on the LRRS network which can impact safety, the focus of each RRG will vary. RRG members also face differing levels of capability, resource expertise and available systems.

Therefore, the Roads Alliance in collaboration with the ARRB Group (formally known as the Australian Road Research Board) has supported the development of a comprehensive road safety risk management package for RRG members. This package assists RRG members to identify potential high priority road and bridge safety risk sites by using a Road Network Safety Assessment (RNSA) tool and the Roads Safety Risk Manager (RSRM) software package. These tools are available as a combined package called 'NetRISK'.

THE ROAD NETWORK SAFETY ASSESSMENT TOOL

The Road Network Safety Assessment (RNSA) tool has been developed to meet the specific needs of the Roads Alliance.

The RNSA provides a process for network level inspection and rating to focus attention on those locations where road features could play a significant role in influencing the likelihood or severity of a crash.

The process serves two main purposes:

- + Assist the RRG member to ensure investment is directed in a way that saves the maximum number of lives, and maximises the reduction in injury and property damage crashes, and
- + Assist the RRG member in meeting its duty of care in relation to legal responsibilities.

As with all Roads Alliance initiatives, the RNSA process allows individual RRGs to undertake local level refinement of the model to ensure that local conditions and available resources are accounted for.

With the high risk locations identified, RRG members are being funded and trained to use the "Road Safety Risk Manager" product to determine suitable remedial treatments and to prioritise these works based on the best return on investment, and highest safety gains for the money available.

THE ROAD SAFETY RISK MANAGER

The focus of the Road Safety Risk Manager (RSRM) is to achieve the maximum road safety benefits for the budget available. To ensure this outcome, the individual projects are assessed to evaluate their return on investment in terms of safety risk reduction.

The "Road Safety Risk Management" methodology developed by ARRB in association with Austroads is specifically designed to assist road authorities proactively assess road safety projects.



NETRISK IMPLEMENTATION

The NetRISK methodology developed in conjunction with the Australian Road Research Board (ARRB) has been an outstanding success. Throughout the period there has been continued uptake of NetRISK which comprises both the Road Safety Risk Manager (RSRM) and the Road Network Safety Assessment (RNSA) tools.

The Roads Alliance Board has also made the provision of training opportunities in the use of these tools a key priority through providing a 50% training subsidy, which is available to each RRG member's staff. Pleasingly the uptake by RRG staff also reflects this priority. In 2005-06:

- + 252 Main Roads and local government staff have undertaken a comprehensive two day training course in the use of the tool
- + Training courses were undertaken in 17 locations throughout Queensland
- + Members of 14 of the 16 RRGs were able to undertake training.

The Roads Alliance Board has also extended its support of the training by increasing the number of staff entitled to receive the 50% subsidy from two to six for each RRG member.

In addition, it should be noted that:

- + It is anticipated that a minimum further four courses will be run throughout the state in the coming year
- + The Road Network Safety Assessment (RNSA) tool and the Road Safety Risk Manager (RSRM) software package have been nominated for a 2006 Engineering Excellence Award.

PROGRAM DEVELOPMENT CHANGE IN TIMING

This year the available time to undertake the program development process was reduced due to the decision by Main Roads to produce its Roads Implementation Program (RIP) earlier than was previously the case, to better align with the State Government's budget cycle.

To align with this process the development of the 5 Year Regional Road Group (RRG) Works Program for 2006-07 to 2010-11 was required to be brought forward so that the Roads Alliance Addendum could be published concurrent with the RIP. All RRGs were able to meet this challenge and provided their finalised regional works programs, including projects for the additional \$7m Transport Infrastructure Development Scheme (TIDS) funding, by the required deadline.

THE NEW PROJECT PRIORITISATION TOOL

To assist with the program development process an updated version of the Roads Alliance Project Prioritisation Spreadsheet Tool has been developed. This tool incorporates feedback received from a number of RRGs and several Technical Committee Chairs. The extensive work undertaken by the SouthROC RRG in the development of enhanced Project Prioritisation methodologies has been incorporated into the new tool. The new tool also combines both the project prioritisation and program reporting elements required by the Alliance.

Due to the deadlines involved in this years program development cycle RRGs were able to choose either to use the new tool or continue to use the previous version.

Project prioritisation is an important stage of the program development process. The project prioritisation process;

- + Assists RRG members to rate proposed projects on a consistent basis across the region
- + Assists RRG members to better determine "which project" and "when" specifically a project should be undertaken
- + Promotes more accountable and transparent decision making processes based on factual data
- + Directs investment on the Local Roads of Regional Significance (LRRS) to the highest local and regional priorities.

There are three components to the project prioritisation process;

1. Multi Criteria Analysis
 - assesses the tangible impacts if a project proceeds using selected economic, social, environmental and safety criteria. It is an extension to traditional Benefit Cost Analysis and attempts to take account of all relevant impacts, including tangible impacts which are difficult to quantify in dollar terms.
2. Risk Analysis
 - assesses the intangible impacts if a project does not proceed. Risk analysis for the Roads Alliance is focused on road safety risk and road asset risk.
3. Benefit Cost Analysis (BCA)
 - assesses the net tangible benefits of a project to the community if the project proceeds. BCA seeks to value the expected impacts of an option in monetary terms.

At a minimum all RRGs are expected to use multi criteria and risk analysis. The use of benefit cost analysis is optional, but highly encouraged.

When prioritising projects RRGs are required to use the same criteria that was adopted as part of the investment strategy development process.

Significant RRG Members' input has enabled the development of a simpler and more robust project prioritisation tool and has demonstrated the importance of shared learnings within the Roads Alliance.

ASSET MANAGEMENT



Asset management implementation continued to be of some concern to many RRGs. Many local government Technical Committee members indicated they lack both resources and capability in this important area. Most RRG local government members now have asset management systems in place, however few members are currently operating these systems to the optimal level required to support the program development process.

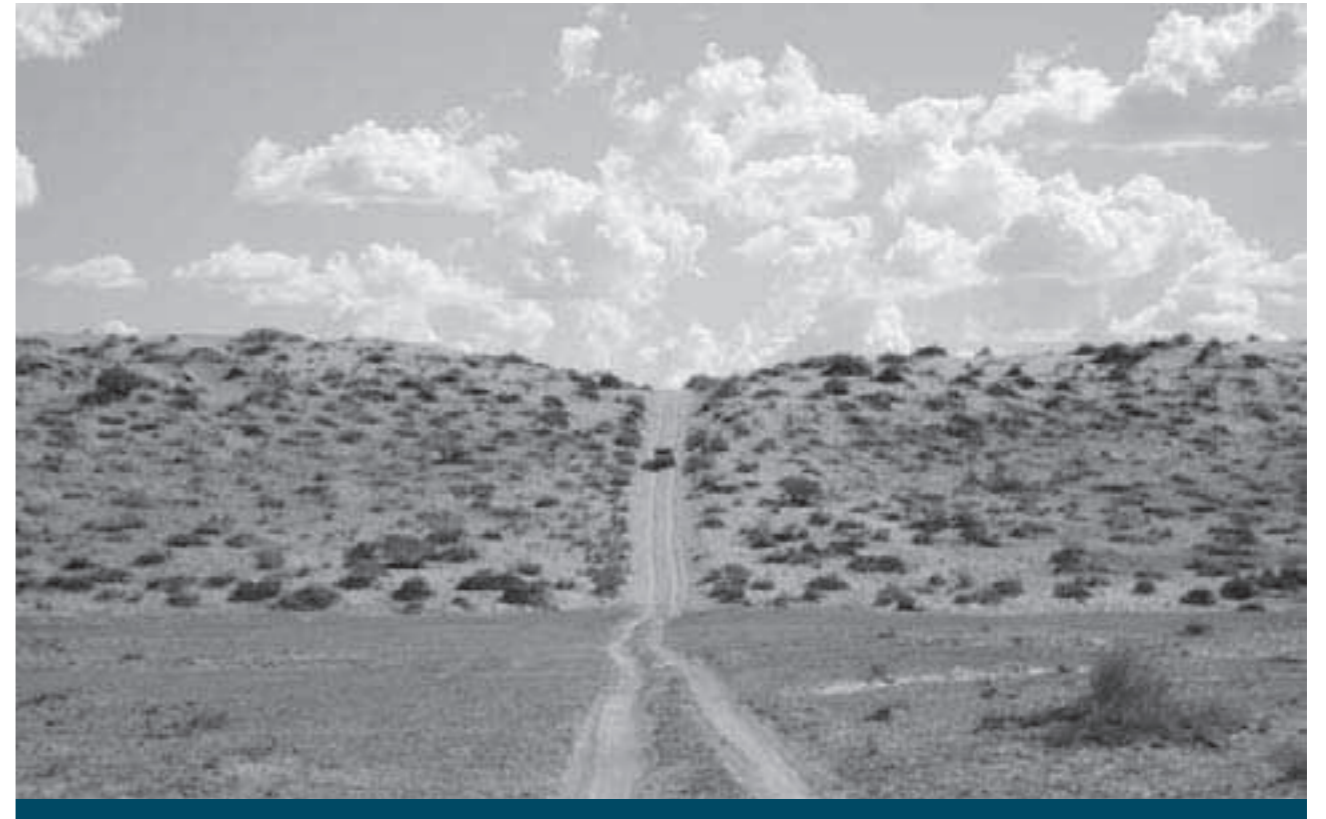
In response the Roads Alliance Board has enabled RRGs to allocate part of the 5% additional capability funds to improve regional asset management system implementation. Formal advice detailing guidelines for the use of these funds has been provided to all RRGs.

Capability Implementation Plans have been requested to be supplied to the Alliance Board by late September 2006. Through the development of these plans RRGs will be able to identify options to improve asset management system outcomes across their RRG. Some RRGs have indicated interest in the development of a bureau system while others are exploring increased use of consultants to meet their immediate needs and undertake longer term skills transfer.

While the progress on these key initiatives is commendable, the Alliance Board will be focusing on improving and consolidating their application.



PROGRAM DEVELOPMENT FOR THE ROADS ALLIANCE



PROGRAM DEVELOPMENT PROGRESS IN 2005-06

Queensland's Regional Road Groups (RRGs) have made significant progress in 2005-06 with works program development and the production of an improved 5 Year Regional Works Program for the Local Roads of Regional Significance (LRRS). Even though the full program development process is only in its second year, RRGs have demonstrated statewide, an improved knowledge of the process with commitments to continually develop these skills and consolidate the process over the coming years.

The program outcomes in most cases have shown a full five year program. However, not all members provided their 5 Year Works Program to the group for moderation, which has limited the scheduling capability of the RRG and restricted their capacity to transfer funding from lower priority projects to higher priority projects.

The nine basic program development stages groups have used this year are:

RRG MEMBERS HAVE:

1. CONFIRMED THE LRRS NETWORK AND FUNDING COMMITMENT LEVELS
2. CONFIRMED LONG-TERM INVESTMENT STRATEGIES
3. UNDERTAKEN GAP ANALYSIS
4. DETERMINED SCOPE OF WORKS
5. IDENTIFIED SHORT-TERM PRIORITIES
6. GENERATED PROJECTS
7. SCORED AND PRIORITISED PROJECTS

RRGS HAVE:

8. REVIEWED AND ALLOCATED FUNDS AND ADOPTED A PRELIMINARY WORKS PROGRAM
9. ENSURED ACCURACY AND ADOPTED A FINAL WORKS PROGRAM.