

**Comparisons of Emergent Road Safety Strategies in Queensland
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Jason Deller B.Eng (Civil), Grad. Dip Road Safety RPEG IEAust IPWEAQ,
Principal, Strategic Transport Planning Sunshine Coast Regional Council,
Alan Meares,
Road Safety Officer (Contractor) , Moreton Bay Regional Council
email : jason.deller@sunshinecoast.qld.gov.au

Abstract

Acknowledging the short fall in Queensland road safety action, in May 2007 a coordinated approach to road safety commenced between Moreton Bay Regional Council (MBRC), the Roads Alliance Team (Queensland Transport and Main Roads and LGAQ), Queensland Police Service and the Institute of Public Works Engineering Australia (Queensland Division). This multi-agency approach, based on the **safe system framework methodology** led to the development of the Road Safety Partnership Project (RSPP) to reduce road trauma at the local government 'grass roots' level through infrastructure and behaviour changes initiatives. It subsequently won the 2008 Queensland Road Safety Award for Local Government. In April 2009, the Roads Alliance announced that the RSPP would be introduced across Queensland through the Regional Road Groups in the form of the Queensland Road Safety Partnership Program (QRSPP).

A number of Councils in Queensland have now begun their own road safety strategy journey utilising the documented learning's arising from the RSPP. As these Road Safety Strategies are slowly introduced throughout Queensland it is interesting to compare their similarities and differences. Are they influenced by population density, is exposure an issue or perhaps their asset condition is the primary consideration? This paper explores these issues with the authors experience at the Queensland Councils of Moreton Bay, Sunshine Coast and Toowoomba.

Key Words

Road Safety, Multi-agency, Award Winning, Safe System Framework

Introduction

Acknowledging the short fall in Queensland road safety action, in May 2007 a coordinated approach to road safety commenced between Moreton Bay Regional Council, the Roads Alliance Team (the then Queensland Transport and Department of Main Roads and Local Government Association of Queensland), Queensland Police Service and the Institute of Public Works Engineering Australia (Queensland Division).

This collaborative multi-agency approach, based on the safe system methodology led to the development of the Road Safety Partnership Project (RSPP) to reduce road trauma at the local government 'grass roots' level through infrastructure and behaviour changes initiatives.

The RSPP characterised the Queensland Roads Alliance principles of partnership and joint purchasing and resource sharing, and demonstrates the significant benefits that can be achieved through collaboration across tiers of government.

Its aim is to achieve greater road safety to reduce road trauma through improvements in road user behaviour and engineering by:

- Improving road safety analysis and engineering outcomes;
- Identifying and coordinating local road safety responses with input from local officers from multiple agencies; and
- Identifying applications to other Queensland regions.

The Moreton Bay RSPP subsequently won the 2008 Queensland Road Safety Award for Local Government. Following this success, in April 2009, the Roads Alliance announced that the RSPP would be introduced across Queensland through the Regional Road Groups in the form of a Queensland Road Safety Community Partnership Program.

In April 2010 the Moreton Bay Road Safety Strategy was reported to Council for adoption, a journey which officially began in May 2007. Whilst it hasn't been adopted and the Queensland Road Safety Partnership Program is in its infancy, the Toowoomba Regional Council and the Sunshine Coast Regional Council have now begun their own road safety strategies journeys following the same direction as the Moreton Bay Regional Council.

This report discusses the work undertaken by the Authors with respect to strategies they have been directly and indirectly involved in particular the Moreton Bay (MBRC), Toowoomba (TRC) and Sunshine Coast Regional Councils (SCRC) and is based on the assumption that road trauma is a significant issue that requires intervention and immediate attention from all levels of Government.

Key Strategy Similarities

Governance Structure

From its inception in May 2007, the RSPP was managed through a Steering Committee with representation from the following agencies:

- Local Government Association of Queensland (LGAQ);
- Department of Transport and Main Roads (TMR)¹;
- The Queensland Police Service (QPS);
- Institute of Public Works Engineering – Australia (Queensland Division) (IPWEAQ);
- Moreton Bay Regional Council².

As the project progressed, it was recognised that responsibility for road safety in the Region extended much wider than those organisations. Consequently, Queensland Health and the Department of Emergency Services (through the Queensland Ambulance Service) were invited to join the Steering Committee.

In early 2009 the Queensland Police and CARRS-Q had been working together to look at data and better understand the crashes for the Sunshine Coast. Ms Michelle Haywood from the TMR, was invited to a meeting in March 2009.

With her involved within the Steering Committee for the RSPP and being mindful of the RSPP aim of “*Identifying applications to other Queensland regions*”, Ms Haywood raised the possibility of trying to duplicate what was occurring with the RSPP on the Sunshine Coast without the funding arrangements. The RSPP had progressed sufficiently at that time since its commencement in May 2007 so that enough work was

¹ Initially separate representation from Queensland Transport and the Department of Main Roads

² The amalgamation of Caboolture and Pine Rivers Shires and Redcliffe City in March 2008 created the Moreton Bay Regional Council. The project was extended to include the whole of the new Moreton Bay Regional Council area (MBRC).

able to be utilised. This result was certainly one of the expected benefits of working with a multi-agency approach. So then in April 2009, this began the development of a working group, similar to one established for the RSPP to develop the Sunshine Coast Strategy and Action Plan. It is hoped to have a draft SCRC Strategy for consideration by the end of June 2010.

In late 2008, the Roads Alliance Project Team (RAPT) sought expressions of interest from Regional Roads Groups who may have been interested in conducting a Road Safety Partnership Project, following on from the initial pilot project carried out by the Moreton Bay Coast and Country Regional Road Group. The Eastern Downs Regional Road Group (EDRRG) subsequently advised that they were interested in being involved in a project which would be a joint Roads Alliance/Eastern Downs Regional Road Group project with funding being provided by the Roads Alliance and Toowoomba Regional Council as the member Council for the EDRRG.

Each of the three Councils has established a Committee Structure in some form. For those areas where this could prove problematic it could form part of the Traffic Advisory Committee. Interestingly, on each of the Committees, there were no elected representatives.

Safe System Approach Framework

The major outcome of RSPP was the development of a Road Safety Strategic Plan and Action Plan for the Moreton Bay Regional Council area. Whilst local governments in Queensland did not have Road Safety Strategic Plans and Action Plans, many interstate local Councils had adopted plans to address road safety issues in their areas. To assist with the development of the draft plans for MBRC, extensive research was undertaken of plans introduced in other parts of Australia as well as some overseas countries. This research generally showed that all plans were based on similar issues – safe roads, safe road users, safe speeds, safe vehicles.

This coincided with the “*Safe System Framework*” endorsed by the Australian Transport Council which guides road safety policy in all jurisdictions across Australia as well as most of the road safety strategies developed by local councils.

The final draft of the MBRC strategy has been based on the Safe System Framework and has also taken into account the Austroads “*Guide to Road Safety*” *Part 2: Road Safety Strategy and Evaluation* and *Part 4: Local Government and Community Road Safety*.

The ‘Safe System’ approach has been espoused by the Australian National Road Safety strategy and by the separate state and territory road authorities. Details are given in the National Road Safety Action Plans (ATC 2008) and summarised in the Guide to Road Safety, Parts 1, 2, 3 and 7 (Austroads 2006a, 2006b, 2006d, 2008a).

The Safe System Framework takes human errors and frailty into account, acknowledging that crashes will continue to occur but seeking to avoid death and serious injury as outcomes. Speed is a critical element in this approach. Speeds must be contained so that in the event of a crash the impact forces remain below human injury tolerance.

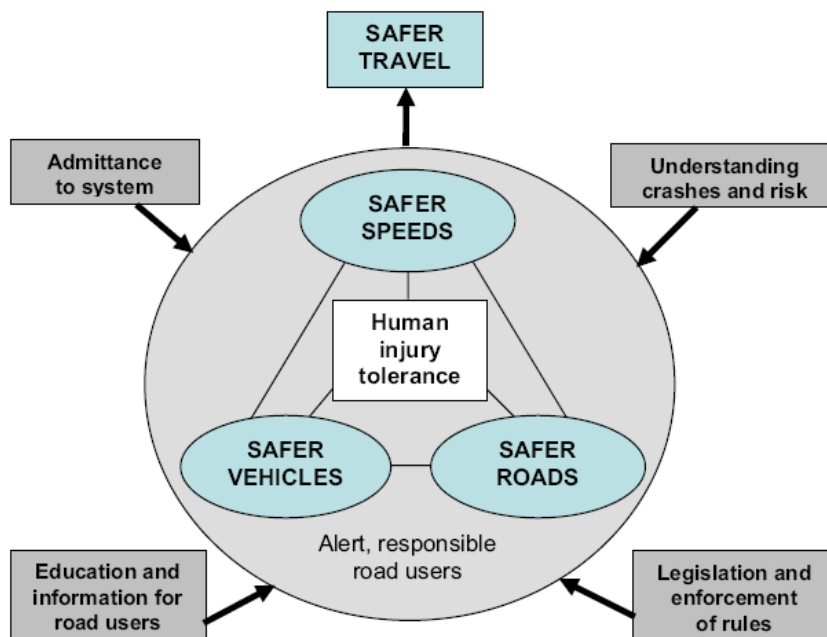


Figure 1 : Conceptual overview of Safe System framework

The MBRC Strategy has been formed with this guiding principle; that all road users make mistakes and that no road user should be subjected to an energy exchange in a crash so severe that it results in death or permanent injury.

Alternatively, a minor error of judgment should not result in road trauma. This is to be achieved through a combination of speed management, forgiving roads and roadsides, and occupant protection within vehicles.

On this basis the *Safe System Framework* objectives for the MBRC Strategy has been defined as:
 Making the road transport system more forgiving of human error; and
 Minimising the level of unsafe road user behaviour.

Four Safe System Framework Outcomes have been identified:

- Safer roads and roadsides;
- Safer road users and safer behaviour;
- Safer speeds; and
- Safer vehicles.

Both the TRC and SCRC Strategies will both be following this same approach.

However, Council responsibilities go further than to just safe roads, safe road users, safe speeds and safe vehicles. It also has responsibility for Land Use and Transport Planning and Management in its local area. In addition, Council is better placed to involve the local community in road safety issues than other agencies through its ability to build partnerships with the community and other stakeholders. Consequently, the Moreton Bay Regional Council Road Safety Strategic Plan and Action Plan targets the following seven (7) strategic priority areas:

STRATEGIC COORDINATION AND COMMUNICATION

- To support the coordination of road safety planning and action within Council and with external partner organisations

LAND USE AND TRANSPORT PLANNING AND MANAGEMENT

- To make road safety a priority in the planning and management of land use

SAFE ROADS

- To improve the safety of the roads and the roadside environment.

SAFE ROAD USERS

- To reduce the number and severity of road casualties by improving the behaviour of road users.

SAFE SPEEDS

- To reduce the number and severity of road casualties by improving the speed behaviour of drivers

SAFE VEHICLES

- To reduce the incidence and severity of casualties by promoting the use of safer vehicles and improved driver practices

COMMUNITY OWNERSHIP

- To develop community ownership and effective participation in road safety

Data trends and consultation outcomes were considered in the development of individual actions. In addition, it was appropriate to develop a plan that complimented the State Strategic Plan and Action Plan as these documents laid down the base for all road safety activities throughout the State. It is through this work that the TRC and SCRC safety work progressed. Furthermore it is understood that the recently adopted road safety strategy for Logan City Council also utilises the work undertaken by the RSCP.

While the MBRC Strategic Plan is proposed to be a five (5) year document, the Action Plan was scheduled to be reviewed each year, with a view to removing actions implemented during that year and adding new actions that might be identified through consultation, new legislation or changes in the direction taken by the State in regards to road safety policy. During the development of the action plan it was clear that the effort required for budget approval and review, that the annual action plan be changed to bi-annual.

As each of the three strategies has been based on the *Safe System Framework*, a desired outcome of the National Road Safety Strategy, it is recommended that each local government develop a Road Safety Strategy based on the *Safe System Framework*.

Branding

To inform the Moreton Bay community of the MBRC focus on road safety, it was considered important to establish a 'brand' for this program that would be identified by the community and immediately linked to road safety. After all, road safety is a *shared responsibility* between all parties associated with the roads – the owners of the road system, vehicle designers and road users.

During the consultation of the RSPP, it became evident that the community responded extremely favorably to the multi-agency approach. To maintain this ideal and the road safety message in the mind of the community, a logo was developed to be used on all MBRC publications, displays and other promotional material prepared. Specially branded clothing will also be worn by staff involved in the day-to-day road safety activities of Council.

The Road Safety Community Partnership Program branding with the SCRC logo as an example is shown in Figure 2.



Figure 2 : Branding with Council Logo

It is expected that as other local governments undertake programs to prepare Road Safety Strategic Plans and Action Plans for their areas, this branding (recognising the appropriate local government) will be adopted as part of those programs. A generic version of the branding can be seen in Figure 3 with space to insert the relative Council logo.



Figure 3 : Generic Branding

It has been identified that both the TRC and SCRC are planning to include the branding with their respective Strategies and Action Plans.

Strategy Objectives

As with the common approach utilising the *Safe System Framework* for each of the three overall strategies, their respective goal is to reduce road trauma and to achieve greater road safety through improvements in road user behaviour and engineering. Further refinement in the MBRC Strategy has this achieved by:

Improving road safety analysis and engineering outcomes;

- Identifying and coordinating local road safety responses with input from local officers from multiple agencies; and

- Identifying applications to other Queensland regions.

As the MBRC Strategy was a pilot project to demonstrate how a road safety strategy would be delivered at a local government level, the aims of subsequent strategies may be modified. Notwithstanding, each of them will have the clear objective to reduce road trauma.

The SCRC Strategy will propose a vision to “Aim for zero fatalities”.

Each of the strategies, while all aiming for road trauma reduction will have a slightly different focus, dependant of the local characteristics and evidence from crash analysis. Officer personalities are a significant reason for the variations due to personal preferences or direction from the elected representatives. Some have a desire to see a reduction in speeding whereas others may have a focus on issues for older drivers. This personal perspective has contributed to the local differences.

The two key areas of similarity are the *Safe System Framework* and the understanding of importance to safety branding.

Key Strategy Differences

As discussed previously, each of the strategies proposes to utilise the *Safe System Framework*, with all aiming for road trauma reduction.

Moreton Bay Region has a combination of urban and rural residential, with a significant predominance of urban issues emphasized by being the third largest Council, by population in Australia. In contrast, the Toowoomba region also has a combination of urban and rural residential with a significant rural component.

The Sunshine Coast Region, like Moreton Bay, has a significant urban population, being the fourth largest local government in Australia by population along with rural issues. However, the Sunshine Coast region does have significant tourism.

Strategy Deliverables

The draft MBRC Strategy, which at the time of writing, was very close to being adopted by Council, is anticipated to deliver the following:

- Identification of the gaps between TMR regional safety initiatives and local needs/issues;
- Possible solutions or initiatives to address gaps identified above;
- A draft 5 Year Road Safety Strategy and Yearly Action Plan for Moreton Bay Coast and Country Regional Road Group and the Roads Alliance or the Moreton Bay Regional Council for consideration;
- A guide to preparing a Local Government Road Safety Strategy Plan and action plan in the form of templates for use by other regions throughout Queensland;
- Consultation relationships with key stakeholders and road safety organisations;
- The development of a Road Safety Assessment Data Analysis Model for use by other regions;
- A discussion paper of the logistics of a Road Safety Officer to coordinate road safety at the local government ‘grass roots’ level;
- An evaluation mechanism to determine the effectiveness of the pilot strategy; and
- A discussion paper on the issues faced in developing the strategy.

The MBRC Strategy was a pilot project to demonstrate how a road safety strategy would be delivered at a local government level therefore subsequent strategies will have different deliverables, albeit similar in some respects. On this basis the TRC is proposing to be consistent with MBRC in delivering the following:

- Identification of the gaps between TMR regional safety initiatives and local needs/issues;
- Possible solutions or initiatives to address gaps identified above;
- A draft 5 Year Road Safety Strategy but with a bi-annual Action Plan; and
- Develop an evaluation mechanism to determine effectiveness.

It is expected that the SCRC Strategy will be consistent with the TRC.

Resources

A key outcome of the RSPP was the placement of a dedicated regional road safety resource to facilitate the road safety assessment, planning, programming and delivery of safety initiatives across local governments through an agreed regional road safety plan.

It was identified that this regional resource could be provided through local government employment, consultancy or services provided by TMR Districts or larger local governments with available capacity.

In the context of the RSPP, it was intended to include the temporary employment of a Road Safety Officer by the Regional Road Group who would work at the Pine Rivers District Office of the MBRC and with the other Councils to develop the Road Safety Strategic Plan and Action Plan. It was expected that this employment would be for an initial period of 12 months.

It was expected that the Road Safety Officer would have an understanding of both behavioural and road management issues and would undertake or coordinate the following types of activities:

- Develop the Road Safety Strategic Plan and Action Plan;
- Analysis of road crash data;
- Identify current road safety activities and linkages;
- Identify priority road safety issues, conduct research and recommend solutions;
- Develop strategies to raise the priority of road safety within Council and the community;
- Liaise and coordinate activities with Councils across the region;
- Liaise with Queensland Police Service local officers and TMR Regional Road Safety Advisors; and
- Develop community engagement strategies.

In October 2007, a part-time contractor to work towards achieving the aims and outcomes of the project was employed. This officer, Mr Alan Meares, a former Senior Queensland Transport Officer, had extensive experience in the road safety and traffic field and part of his duties included the undertaking of comprehensive consultation with all relevant stakeholders with a view to establishing those issues that might be addressed in the Road Safety Strategic Plan and Action Plan to be developed for the MBRC region.

In addition to this contractor, a specialist Road Safety Officer was appointed within the Moreton Bay Regional Council to address specific road safety issues as well as assist the contractor with the Partnership Project. The services of the contractor were extended for a further 12 months in June 2008 to allow for the continuation of the development of the strategic plan and action plan, which had been deliberately slowed so that internal Council consultation did not clash with the 2009-2010 internal budget process, the first under the new amalgamated Council structure.

One of the outcomes of the RSPP is to determine and evaluate the effectiveness of an RSO in the development of road safety strategies in local government.

Whilst there is a consistency across the three Councils with respect to hiring a contractor short term, there is a difference with the employment of a specialist Road Safety Officer. The development of the RSPP could not have been achieved without the contractor and specialist Road Safety Officer. One of the challenges expected from Councils that do actually implement a strategy is whether its Action Plan can be delivered without a specialist Road Safety Officer.

Strategy Methodology

Road Crash Data Collection and Analysis

The 2006 *Guide to Developing Council Road Safety Strategic Plans* published by the Institute of Public Works Engineering Australia (New South Wales Division) explains that identifying road safety issues involves finding useful sources of information. The most useful sources of information are road authorities (TMR WebCrash Database), QPS (Enforcement Data, Criteria for Reporting Crashes, Information-Sharing), Council (Traffic Counts and Studies, Fleet Crash Costs, Public Liability Claims), the health services and the Australian Bureau of Statistics.

When conducting a data collection process in order to identify the types of crashes, questions such as: Why do they occur? Who is involved? must be addressed. There are three main elements in any incident/crash. These are:

- (a) the vehicle;
- (b) the road environment; and
- (c) the road user.

It must always be kept in mind that any incident includes all three elements. Various forms of statistical data were used to establish the road safety profile for the MBRC area and completed for TRC and SCRC. Whilst the same methodology was used, the RSPP was more comprehensive. Subsequent strategies and ongoing analysis have been tailored to suite resource demands.

Department of Transport and Main Roads

Data contained in the Queensland TMR WebCrash Database for the period 2002-2006³ was the primary source of data used in developing the MBRC Strategy and Action Plan. This data included all crashes that were required by law to be reported to the police. However, it did not include crashes that were reported to police for insurance purposes only.

The WebCrash database is available for Councils to access and obtain a greater in-depth analysis of crashes in their local government area.

³ At the time of undertaking this project, all road crash data contained in the WebCrash database for 2007 and 2008 had not been finalised. This was due to the time it takes for police to complete crash investigations, finalise reports, and collect additional information from other sources such as the coroner, pathologist and government medical laboratory. As a result, road crash analyses used in the development of the Moreton Bay Regional Council Road Safety Strategic Plan and Action Plan relate to the 2002-2006 period.

Queensland Police Service

Police statistical information can provide details on enforcement data that enhances understanding of the road safety risks in an area such as the number of road safety related offences, including the non-use of seat belts, speeding or drink-driving. The criteria for reporting crashes – Regulation 287 of the Transport Operations (Road Use Management – Road Rules) Regulations 1999 – requires a crash to be reported to police when any person is killed or injured; when drivers involved in a crash do not exchange particulars; or when a vehicle involved in a crash is towed from the scene. This type of information can be very valuable as it cannot be found on the WebCrash database and this type of information-sharing between police and council has mutually-beneficial advantages including the building of relationships between the two entities.

Council

A range of data sources is available from within Council. These sources may include the details of issues discussed at the Traffic Advisory Committee, community complaints, traffic counts and studies, and Council crash and insurance claim records.

Traffic counts and studies provide the context for the analysis of crash rates, for example, if there have been increased incidences of crashes on a particular route, reviewing traffic counts can help in understanding whether the increase is relative to the change in traffic volume or to some other factors.

Reports from insurance companies given to policy holders on their claims records contain relevant information on the number and cost of crashes involving the Council's fleet as well as civil liability claims against Council infrastructure. This type of information provides details of the costs and number of claims where the insured was 'at fault' as well as a breakdown of the types of incidents. Public liability claims made by road users against the Council is another useful source of evidence to support the benefits of corrective and preventive road management and planning.

Health Services

Local hospitals and health services are another source of useful data. For example, hospital admissions data provides more accurate records of the number of bicycle and motorcycle injuries as these are frequently not reported to the police.

Australian Bureau of Statistics

Statistics on the local population can be obtained from the Australian Bureau of Statistics (ABS) census reports. Population data can be used to help identify target groups for the strategic plan as well as special interest or special needs groups for community consultations.

The ABS provides Basic Community Profiles and Working Population Profiles based on local government boundaries. The Basic Community Profiles help to identify the composition of the local government's resident community in terms of age, gender, ethnic/cultural background and language spoken at home. The profiles also include information on the number of vehicles per household and the form of transport used to travel to work.

Working Population Profiles give similar information but about the people who work rather than live in the local government area. This is particularly useful for areas with low residential population but high working

population who commute into the area each day. The value of this demographic data is that it provides a population baseline against which crash incidence data can be checked.

ARRB Group Data Collection

The ARRB states that network inspections can be time consuming and resource intensive. Often as a result of the inspection, road authorities identify more sites than they can afford to treat with available resources.

Identifying that asset condition is an important consideration however, ARRB's network level road safety assessment (NetRisk) tool⁴ changes the traditional approach to network inspections by using a set of trigger points to prompt practitioners to investigate hazardous sites. Sites are triggered only when they exceed minimum preset safety levels, allowing the road authority to configure the system to detect a manageable number of hazardous locations in each budgeting period.

Utilising the latest Austroads research findings, and integrating BCR (Benefit Cost Ratio) calculations, the NetRisk process is designed to enable road authorities to assess the safety conditions of any road network in the fastest and most efficient manner possible. Hazardous locations on the network are detected and analysed according to the road authority's available resource levels and local considerations.

Implementation of the NetRisk process involved a two stage approach for the RSPP:

Stage 1: Involves the completion of a Network Level Risk Assessment to focus attention upon high risk sections of road according to minimum safety triggers.

Stage 2: Involves a deeper investigation of the high risk sites to locate specific hazards and the preferred treatment option. Individual treatments are analysed and prioritized across the network to ensure the highest value projects are completed first.

The NetRisk process involved:

- Video or manual assessment against triggers;
- NetRisk assesses the risk of a crash for each road section from the number of triggers in that section;
- The risk is ranked and reported to identify high risk areas.

The above process served two main purposes:

- To assist the authority to ensure investment is directed in a way that provides the greatest reduction in road trauma; and
- To assist the authority in meeting its duty of care in relation to legal responsibilities.

In summary, there are certain factors which contribute to crashes and these need to be identified in order to prevent them from happening in the future. ARRB utilises the NetRisk tool which recognises any hazards/dangers posing unacceptable risks. This approach will be used on all three of the strategies.

Figure 4 shows the multi-layered analyses of road crash and safety issues which was used to inform the outcomes to be achieved by the MBRC strategy. By utilising each of the data sources explained in this section and overlaying where there are common issues, such as location, a narrowed focus can be determined to target initiatives.

⁴ Assessment based on the NetRisk Road Network Safety Assessment method developed by ARRB in collaboration with Main Roads and the Local Government Association of Queensland as part of the Roads Alliance initiative.

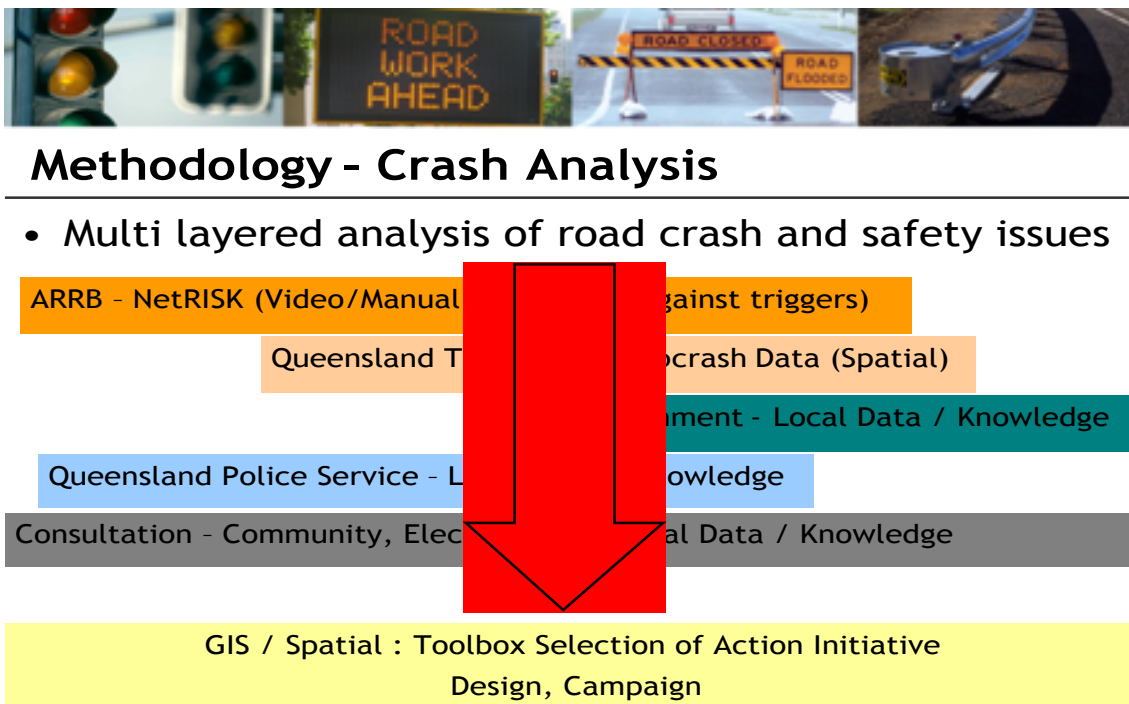


Figure 4: Multi-layered Analyses of Road Crash and Safety Issues

A toolbox of action initiatives can then be used to select the most appropriate action for the narrowed focus. Despite this narrowing of focus, significantly reducing the actions identified, there still were a number identified through the RSPP. The next stage was to prioritise these actions as much as possible.

It should be noted that creating a 'toolbox' of initiatives has proven to be particularly problematic. It was hoped that a complete list of initiatives and actions, those that have proved to be successful in some form and more importantly those that haven't been successful could be collated. At this time a complete list has yet to be developed due to stakeholders' reluctance to release initiative information.

NetRisk and Road Safety Risk Manager

NetRisk and Road Safety Risk Manager (RSRM) is a network level road safety rating tool which focuses attention on high risk sections of road and identifies and prioritises suitable remedial measures. It should be noted that this method focuses on infrastructure actions and not behavioural.

The Road Network Safety Assessment (RNSA) is a tailored model for use in the following locations:

- Sealed Rural Arterial Roads/Collector Mid-block;
- Unsealed Rural Arterial Roads/Collector Mid-block;
- Rural Intersection (major);
- Sealed Urban Arterial Roads/Collector Mid-block; and
- Urban Intersection (major).

The steps to be followed in undertaking a Road Network Safety Assessment include:

- Step 1 – Review triggers;
- Step 2 – Undertake network assessment (manual or video);
- Step 3 – Enter results into RNSA spreadsheet;
- Step 4 – Report and rank sections for further investigation; and
- Step 5 – Investigate high risk locations further.

To this point, exposure or traffic volumes are not considered through the NetRisk and Road Safety Risk Manager process. Figure 4 summaries this section by showing how a multi-layered analyses of road crash and safety issues was undertaken for each of the strategies. Through this process, particularly with local government and Police local knowledge it was evident that exposure cannot be ignored. Furthermore, with population density comes increased exposure. With increased exposure, the risk of an incident occurring does increase. However, the same officers identified that care must be taken so that focusing simply on exposure does not overwhelm significant safety issues at lower volume roads.

This is the issue of competing demands from the various road safety partners between the needs to undertake infrastructure solutions and those who believe behavioural change solutions are more important. The RSPP took the position that a balance is required between the two. One of the main issues raised by traditional engineers is that council's role is only in the construction and maintain of road infrastructure. The response was that council has a responsibility to ensure that the use of the built infrastructure is done as safely and efficiently as possible, essentially a whole of life approach.

Further work on addressing competing demands is required with respect to prioritising actions.

Selecting the relevant information

Better data and better use of data and data utility is a major issue for local governments particularly as it assists in managing road assets in the longer term particularly in setting investment priorities. Road crash data is no different. The range of road crash data available from the collection process is not all relevant

Taking a systematic approach helps so there is a logical progression and reason for each item of data included in the analysis. Sometimes there are conflicts between evidence of crash statistics and community perceptions of road safety issues. Table 1 below from the IPWEA NSW *Guide to Developing Council Road Safety Strategic Plans* helps to separate relevant information from irrelevant data.

Question	Example	Comment
1. Is this data useful in raising awareness or convincing people of the extent of the problem and of the need for a road safety strategic plan?	Data comparing casualty rates with other area populations.	This type of data may be used in preliminary consultations, seminars or forums to engage council and other stakeholder support.
2. Does it assist in the identification of issues and priorities?	Data comparing casualty rates between segments of the local population.	This type of data may be used in workshops and negotiations with stakeholders to develop strategies and make decisions and commitments. Some may be included in the final document.
3. Does it provide the community context or a rationale for the strategy once it has been	Data on the factors associated with local crashes.	This type of data may be in the final document, as it will be used to develop the details of projects and identify

developed?		target groups for the implementation of the road safety strategic plan
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Table 1: Selecting relevant information

Analysing the crash data

There are two essential questions to consider in analysing the relevant crash data:

- What are the road safety problems in this local government area?
- How do the crash rates here compare with other similar local governments, the region and the State as a whole?

Overview of road user groups and associated factors

Analysis is started with an overview of road user groups and the factors involved in crashes over the past five (5) years. Then a profile is developed of the total number of crashes and casualties. Questions addressed were:

- Is the number of crashes and casualties increasing or decreasing each year?
- Is the proportion of crashes that result in casualties increasing or decreasing?

Next the casualties are addressed – who are the casualties? What road user group did they belong to? What were their ages and gender? Finally, the vehicle controllers – the riders and drivers involved in the crashes are looked at. Who are the drivers/riders? What are their ages and gender? Are they local residents?

By following these steps, a general picture of what has been happening can be established. The next step involves determining more about the factors and circumstances associated with each crash. For example:

- Were there any known contributing factors such as speeding, alcohol, fatigue?
- What vehicles were involved such as cars, motorcycles, light truck, heavy vehicle?
- What types of crashes occurred? What were the most common Road User Movement Codes (RUM) used to describe the crash?
- Where did the crashes happen? What was the speed zone? What was the road environment?
- What proportion of crashes involved only a single vehicle compared to multi-vehicle crashes? Were there any road environment hazards noted by the police?

Comparing with other populations and data trends

After obtaining crash profiles for the local government area, the next step is to compare all these results with other comparable relevant populations such as:

- The wider region;
- Other local government areas; and
- The State.

Data numbers are converted to percentages in order to allow comparisons of the relevant proportions of something occurring within populations of different sizes.

Relative proportions between the local government and comparative populations were compared. Then, the rate and directions of change were examined. Do the statistics follow the same trends as the other local government's, the region and the State?

Moreton Bay Region has a combination of urban and rural residential, with a significant predominance of urban issues. The Toowoomba region, also with a combination of urban and rural residential has a significant rural component while the Sunshine Coast region, like Moreton Bay, has a significant urban population and rural issues along with significant tourism.

Surprisingly, whilst each of the three council regions are different, and intuitively it was expected that there would be significant differences in crashes and trends, this however did not prove the case. For example, for TRC there was definitely a perception that the rural safety issues would dominate with fatigue being a significant contributor. For the SCRC it was the impact of tourism and associated visitors to the region. Both of these examples were not evident in the crash analysis. Naturally further crash analysis is required for each of the regions to fully understand this issue and is an area requiring further attention.

As crash data analysis and collection is a significant issue it is expected that the TRC and SCRC will follow this methodology, however, at the time of writing this has not been completed.

Corporate Plan

For the MBRC Strategic plan to be successful and accepted by Councillors, Council officers and the community, it was considered that road safety must be included as an outcome in Council's Corporate Plan. Following the amalgamation process in March 2008, a new Corporate Plan for the MBRC was developed for the period 2009-2014. With lobbying by Council Officers during the review, road safety was clearly identified in this Corporate Plan as a major outcome area for Council to address over the life of the plan.

The theme of Transport Improvements and Roads under the outcome of Multiple transport options and an effective and safe road transport network contains the focus "Establishing clear road safety programs to reduce road trauma and associated costs for the community and council". (Page 28 Moreton Bay Regional Council Corporate Plan 2009-2014).

Council has also considered the importance of addressing other key issues of public safety including; promotion of good health and wellbeing, protecting health through immunisation programs, equity of access to health care services, and implementing road safety strategies and action plans.

Unlike MBRC, the only reference to road safety contained in the SCRC Corporate Plan is within the theme of "Health and Well-being" under the emerging priority "4.1 Safe and healthy communities" and "Strategy 4.1.2 Provide community safety and regulatory programs that ensure the well-being of residents and visitors".

The SCRC Strategy does not however "stand alone" like the MBRC Strategy. It forms part of the SCRC overarching Sustainable Transport Strategy as shown in Figure 5. The safety strategy is listed as 'Transport Safety'.

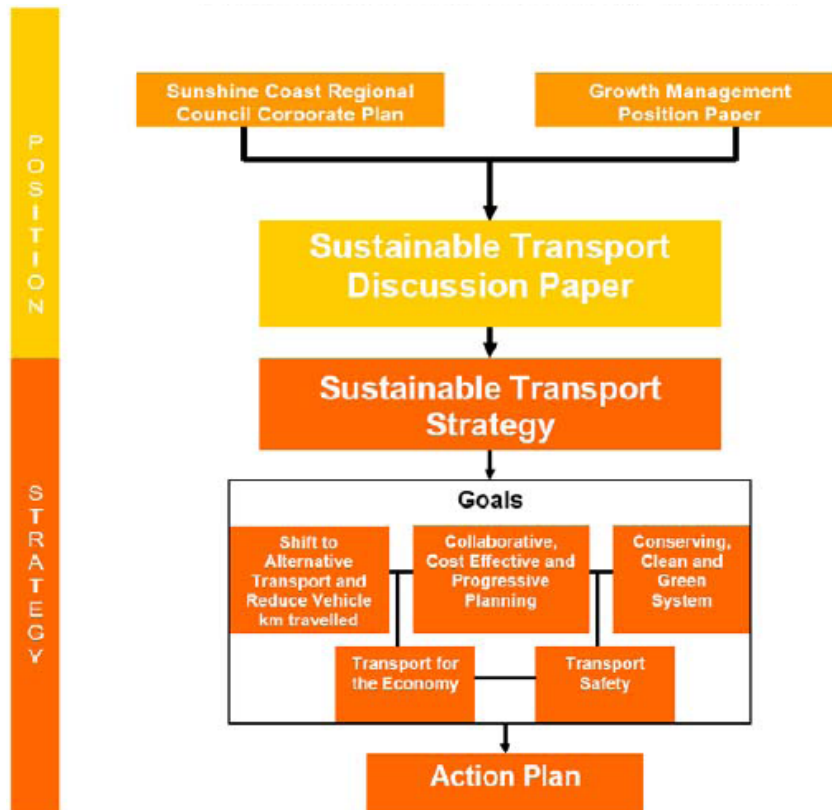


Figure 5 : SCRC Transport Strategy Structure

Like the SCRC’s Corporate Plan, the TRC’s Corporate Plan does not specifically identify “road safety” but it does contain strategic actions relating to “a well-planned, safe and functional transportation system”.

For road safety strategic plans to be successful especially with respect to budget considerations and accepted by Councillors, Council officers and the community, it is considered critical that road safety specifically be listed within respective Corporate Plans. This may require significant lobbying from champions including Council Officers and Councillors.

Consultation

The topic of road safety will always result in a variety of views on what strategies and actions should be undertaken to address issues in a particular area. The consultation process is undertaken in an attempt to bring together these different views in the best interests of the community.

Lack of engagement of stakeholders can have significant negative consequences for organisations delivering road safety. Stakeholder engagement is not necessarily a straightforward matter with difficulties in balancing the conflicting needs and views of stakeholders, the potential to over-service “insistent” stakeholders or overlook new stakeholders. The issue of stakeholder “buy in” was identified through the RSPP, particularly internal officers and councillors. This could be a future action for consideration by the QRSCPP Steering Committee.

In the meantime, further work is being undertaken by Ms Sandra Beach, a PhD student at the Queensland University of Technology on the issue of stakeholder “buy in” with her research topic titled “Engagement of Stakeholders by Regional Roads Groups - Understanding how Regional Roads Groups in Queensland engage with Stakeholders”.

One outcome of the research is the development of a framework to inform decision makers about stakeholder engagement practices. The framework will also identify which practices are appropriate for different stakeholder groups and under what circumstances.

In addition to the internal Council stakeholders the consultation process for the RSPP involved local community organisations, groups and individuals, elected officials road safety professionals (police, road authorities).

Following the RSPP it was concluded that the process taken with its consultation whilst comprehensive may have been achieved with more targeted audiences. This is being considered with the TRC and SCRC Strategies.

Notwithstanding, the RSPP consultation is discussed in the following sections.

Local Community Organisations, Groups and Individuals

All service clubs, including Rotary, Apex and Lions Clubs and Chambers of Commerce were contacted seeking input on issues that they or their members had identified as contributing to road crashes. In addition, other service providers whose businesses have a direct impact on road safety were also included in the consultation process. These included driving schools, hoteliers, public transport providers and other businesses. Special needs groups were also considered as part of this project, including the elderly, disability groups, ATSI people and non-English speaking people. The views of particular road user groups were canvassed including Bicycle User Groups, Motorcycle Groups, the Pedestrian Council and Trucking Associations.

It was considered important to seek input into this project from young community members who had recently received their driver's licence or those who were in the process of learning how to drive with a view to undertaking their driving test in the near future. To obtain this input, letters were forwarded to schools with secondary departments seeking the opportunity for the project officer to meet with a small group of students at each school and seek their feedback on issues that they considered were important in addressing road safety in the community. The feedback received from the students involved was constructive and informative and showed that they were prepared to “think outside the square” to seek solutions to issues that were of concern to them as new or learner drivers.

Consulting with the general community on an issue as sensitive as road safety can be difficult as most people have their own views on what should be done by governments to reduce road crashes and improve behaviour on the roads. With this in mind, it was decided to hold a Road Safety Week which involved the mounting of a display at the major shopping centres throughout the Moreton Bay Regional Council area.

To inform the community of these displays and their intention, a release was prepared for the local media informing people of the times when the display would be at each shopping centre. This media release was produced in accordance with the Communications Strategy adopted by the RSPP Steering Group.

To identify the display with road safety, three (3) banners based on road safety topics were produced as well as large scale maps of the immediate areas around each shopping centre. These displays were manned and

feedback received from community members was documented in a journal and referenced on the map of the area. Five (5) shopping centres were visited with nearly two hundred (200) responses being received from the public.

In addition to the production of the banners, the temporary RSO produced a brochure in association with Council's Marketing Section titled "Road Safety – it's your responsibility" for distribution to members of the community at the information stand at the shopping centres. This brochure proved popular with the public as it contained "plain english" explanations of the basic road rules. This is an excellent example of what can be achieved through the action plan.

Elected Officials

Elected government officials are a key stakeholder in the development of any strategic plan as they will generally be the first 'point of call' by constituents who disagree with the direction of the project or who believe they have a significant contribution to make to the project.

With this in mind, all Federal and State Government members whose electorates impacted on any part of either the Moreton Bay or Somerset Regional Council areas were contacted. Consultation with the elected members took considerable time and resource allocation.

Road Safety Professionals

There are many professional groups involved in road safety including police, emergency services, licensing authorities, road authorities, motoring organisations, research agencies and others. Each of these has the ability to contribute to a road safety strategy through their expertise and experience in their respective fields.

Other professional groups such as the RACQ and CARRS-Q were included in the overall consultation process.

Internal Council Stakeholders

Local knowledge of road safety issues can generally be accessed from internal staff who are involved in planning and engineering projects for the council. With this in mind, it was decided to draw on this information and hold internal workshops involving council officers. In addition, it was planned that these workshops would serve as a reminder to staff that they were an integral part of this project and should contribute to it in any way possible.

It is important that the strategy is explained and sold to internal officers and not rely on the fact that a Strategy and Action Plan to be merely enough to ensure delivery and their "buy in". To change a culture takes time and commitment.

Queensland Road Safety Partnership

Following the success of the Moreton Bay RSPP, in April 2009, the Roads Alliance announced that a program would be introduced across Queensland through the Regional Road Groups in the form of a Queensland Road Safety Partnership Program (QRSP).

The first step towards the delivery of the QRSPP has been the establishment in March 2010 of the Steering Committee along associated working group.

The purpose of this steering committee is to coordinate the development and ongoing improvement of collaborative working arrangements between Queensland's State and Local Government road owners, and other key road safety partners, to contribute to a reduction in road trauma on the state's roads, and in particular, reduce the number of people killed or hospitalised (seriously injured) in road crashes.

Safer roads, safer communities

Last year 328 people died on Queensland roads — 30 people less than 2007.

The Department of Transport and Main Roads is working with local communities and councils to improve road safety by:

- delivering the *Share my story* website, which encourages people to share their road crash stories and promote road safety (www.sharemystory.qld.gov.au)
- facilitating the Driver Reviver program — 35 sites operating across the state involving more than 2300 volunteers
- celebrating 25 years of the School Crossing Supervisor program in 2009
- working in partnership with Moreton Bay Regional Council to develop a local road safety strategy.

By working together we can improve road safety for Queensland's local communities.

Moving Queensland forward

Queensland Government

Figure 6 : Working in Partnership

Collaboration however, is only successful when all stakeholders engage and commit to the process otherwise known as stakeholder “buy in”. Further work is being undertaken by Ms Sandra Beach, a PhD student at the Queensland University of Technology on the issue and discussed in Section 0 (Page 16).

Peer Road Safety Network

At the time this article was being prepared, the 2010 Local Government Association of Queensland Symposium at which the road safety initiatives undertaken by Banana Regional Council were revealed. The Banana Regional Council realised that road safety needed more attention within its region and expanded their Traffic Advisory Committee into a Road Safety Management Advisory Group, undertaking a number of steps similar to that taken in the RSPP.

Through discussions at the Symposium it became apparent that the work already done in establishing a multi-agency approach with local government officers, state government officers from TMR and the Queensland Police Service, provided an excellent platform to develop a formal road safety strategy for the Banana region. This transformation is being considered by the Banana Road Safety Management Advisory Group along with the use of the road safety branding discussed in Section 0 (Page 5).

As the Road Safety Strategies are slowly being introduced across Queensland based on the award winning RSPP, it is recommended that a methodology be developed to transform the work undertaken by Traffic Advisory Committees into respective Road Safety Strategies. This could be one of the first actions for the QRSPP to consider.

A further issue became clear at the Local Government Association of Queensland Symposium with respect to road safety officers peer networking. With most officers being 'time poor', it becomes a challenge to stay in touch with activities locally, nationally and internationally. Conferences and seminars do provide a source for this information, however, from the recent revelation of the Banana Regional Council, it is obvious there is a need for a way to share road safety information easily through a peer road safety network. It seems logical to have this in the form of an on-line forum.

On this basis, it is recommended that a web based peer road safety network be developed.

Jason Deller has created a group on *LinkedIn* which has a group which does allow for this peer networking with the following link:

http://www.linkedin.com/groups?gid=2322493&trk=mysugrp_ovr

It also has a link to a developing road safety page on the Institute of Public Works Engineering Australia - Queensland Division (IPWEAQ) web site. Whilst it is acknowledged there may be other sources and ways to undertake this networking, this approach is a start in that direction.

Conclusion

The collaborative multi-agency approach between Moreton Bay Regional Council, the Roads Alliance Team (the then Queensland Transport and Department of Main Roads and Local Government Association of Queensland), Queensland Police Service and the Institute of Public Works Engineering Australia Queensland utilising the safe system methodology led to the development of the Road Safety Partnership Project (RSPP) to reduce road trauma at the local government 'grass roots' level through infrastructure and behaviour changes initiatives. In April 2010 the Moreton Bay Road Safety Strategy was being reported to Council for adoption, a journey which officially began in May 2007.

In discussions with key stakeholders there are tangible, measurable outcomes for road safety initiatives to be delivered at the local government 'grass roots' level. For a practitioner in the field of road safety, it is encouraging to see the benefits already realised by the RSPP including:

- raising awareness across State Government agencies about local government capabilities;
- reduction in duplication across agencies;
- increasing the profile of road safety for local government elected representatives;
- a proactive approach from Council with the community;
- Network Level Risk Assessment and deeper investigation of the high risk sites to locate specific hazards and the preferred treatment options;
- Evidence that initiatives do not have to be expensive; and
- A clear understanding that behavioural programs have a major role to play in road safety.

Following the success of the RSPP, in April 2009, the Roads Alliance announced that a program would be introduced across Queensland through the Regional Road Groups in the form of a Queensland Road Safety Partnership Program. The first step towards its delivery has now occurred with the establishment in March 2010 of a Steering Committee along with a working group.

Whilst the MBRC Strategy hasn't been adopted and the Queensland Road Safety Partnership Program is in its infancy, the Toowoomba Regional Council and the Sunshine Coast Regional Council have now begun their own road safety strategy journeys following the same direction as the Moreton Bay Regional Council.

The simple goal is to have a road safety strategy in every local government to reduce road trauma.

One avenue to help facilitate this goal is to share road safety information easily through a peer road safety network. A web based peer road safety network has been created on *LinkedIn*, at the following link:

http://www.linkedin.com/groups?gid=2322493&trk=myg_ugrp_ovr

Recommendations:

Considering the three Road Safety Strategies having been undertaken by the Moreton Bay, Toowoomba and Sunshine Coast Regional Councils the following recommendations are proposed for consideration:

1. Each local government develop a Road Safety Strategic Plan and Action Plan, based on the *Safe System Framework* and linked to their Corporate Plan;
2. Lobby to have Road Safety specifically identified within each Local Government Corporate Plan;
3. Work with the Queensland Road Safety Partnership Steering Committee;
4. A methodology be developed to transform Traffic Advisory Committees into an ongoing group with a Road Safety Strategy;
5. Two champions for each local government, at least one Councillor (preferred) and one senior management level (mandatory);
6. Develop an internal education program within the Council, each officer can be a conduit of information;
7. Develop a web based Peer road safety network⁵;
8. Develop a toolbox of initiatives for peer use;
9. Ensure Branding
10. In preparing a strategy and action plan, act like it's an emergency.

Reducing road trauma is challenging and daunting. Those who are in a position to make a difference have a responsibility to do so! Life is not an acceptable toll for road use.

⁵ A web based peer road safety network has been created on *LinkedIn* at the following link:
http://www.linkedin.com/groups?gid=2322493&trk=myg_ugrp_ovr

References

- Austroads Incorporated, "Guide to Traffic Management Part 13: Road Environment Safety", June 2009
- Institute of Public Works Engineering Australia (New South Wales Division), "*Guide to Developing Council Road Safety Strategic Plans*", 2006