DEPARTMENT OF PLANNING, TRANSPORT AND INFRASTRUCTURE
SOUTH AUSTRALIA

BLACK SPOT PROGRAM GUIDELINES

Issue Date
June 2019
## DOCUMENT CONTROL

### DOCUMENT STATUS

<table>
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<th>Action</th>
<th>Name and Position</th>
<th>Doc. KNet Reference</th>
<th>Version</th>
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<tbody>
<tr>
<td>Prepared By:</td>
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<td>#11624009</td>
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<td>Director, Road Safety</td>
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Document Review Schedule: As required
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1 PURPOSE

These guidelines provide information on the administration and operation of the Australian Government Black Spot Program. Projects not successful under that program will be considered for funding through the Department of Planning, Transport and Infrastructure (DPTI) under the DPTI Annual Program. The guidelines provide guidance on project eligibility, the project nomination, assessment and prioritisation process and project reporting requirements.

2 BACKGROUND

Road safety infrastructure programs are aimed at bringing about significant reductions in serious road casualties by the identification and treatment of locations and sections of road that have a poor casualty crash record or that have a significant crash potential identified by safety audits.

3 SAFE SYSTEM APPROACH

The program is focussed on the most effective treatments that can be applied to the key crash types, consistent with Safe System principles. The Safe System approach to road safety is built on several key principles:

Human Factors

- No matter how well we are trained and educated about responsible road use, people make mistakes, and the road transport system needs to accommodate this.

Human Frailty

- The finite capacity of the human body to withstand physical force before a serious injury or fatality can be expected is a core system design consideration.

Forgiving Systems

- Roads that we travel on, vehicles we travel in, speeds we travel at, and communities we live in, need to be more forgiving of human error.

Shared Responsibility

- Everyone has a responsibility to use the road safely and organisations, businesses and communities have a responsibility to design, manage and encourage safe use of the road transport system.
DPTI reserves the right to deem the project ineligible should a nominated project be deemed to not meet Safe System principles. If clarification is required relating to Safe System treatments, Councils can contact DPTI.SABlackspots@sa.gov.au.

4 ROLES

The Commonwealth Department of Infrastructure, Regional Development and Cities is responsible for administering and setting the eligibility criteria for the Australian Government Infrastructure Investment Black Spot Program and DPTI is responsible for administering and setting the eligibility criteria for the DPTI Annual Program.

DPTI is responsible for:

- Setting broad road safety policy and strategy
- Seeking the necessary program approvals
- Coordinating the development of Annual Program for road safety improvements including the seeking of nominations
- Checking of submissions, and
- Prioritisation of projects in line with these guidelines.

It is the responsibility of Councils, DPTI, organisations and individuals to submit project nominations in line with these guidelines.

The DPTI Annual Program will be subject to approval by the South Australian Government and the Australian Government Infrastructure Investment Black Spot Program is subject to approval by the Federal Minister for Infrastructure, Transport and Regional Development.

4.1 Geographic Definitions

This program distinguishes between Greater Urban and Rural Area boundaries. The boundaries are based on the Adelaide Statistical Division Map.

The Greater Urban Area is defined as the metropolitan Adelaide with boundaries including all of Mount Barker and Adelaide Hills LGAs and including Gawler and areas of the Barossa, Light and Mallala LGAs in the north and Majors Road/Black Road at Onkaparinga LGA in the south. Rural is defined as being outside of the Adelaide Statistical Division.

A map is provided on the website http://dpti.sa.gov.au/blackspot.
4.2 Projects on Local Roads

The maximum project cost for individual Council projects on local and state roads is $2.0 million with at least one-third of the total project cost funded by Councils.

Council nominated projects on either state or local roads that are greater than or equal to $150,000 are required to provide more detailed information (as outlined in the nomination form). DPTI Estimating Manual, link: Estimating Manual for Roads and Rail can be used by council as a guide for developing project estimates.

Projects nominated by Council on state roads shall be supported by the relevant DPTI section such as Traffic Services and Road and Marine Assets, as well as all concept plans and estimates developed in accordance with DPTI standards and estimating manual, prior to the project nomination.

Other considerations

Project nominations on strategically important DPTI arterial roads or on signalised intersections, will also take traffic efficiency impacts into consideration. This is to ensure that projects do not create significant traffic flow or congestion problems, or create potential for other safety issues or additional road infrastructure.

5 ELIGIBLE ROAD SAFETY WORKS

5.1 General

The South Australian Government and Australian Government have consistent criteria for eligibility (in terms of crash history). Both are available for safety improvement works on the state arterial roads and council roads.

Under the Australian Government Black Spot Program, eligible nominations on national highways can be submitted. These must not duplicate projects submitted or funded under other Australian Government National Roads programs.

Eligible road safety works are those designed to treat sites with a recorded history of casualty crashes in accordance with the eligibility criteria.

Sites that do not meet the crash history criteria but have been the subject of an official road safety audit are eligible.
Eligible works include:
- Safety improvement works and traffic control devices including traffic signals
- Work on adjacent road environments – e.g. hazard protection works
- Safety improvement works that may include speed reduction treatments as part of the treatment.

Ineligible works are:
- Purchase of road building plant and equipment
- Purchase of law enforcing equipment such as speed and red light cameras
- Maintenance activities
- Area, network or route based speed treatments.

5.2 Eligibility Criteria

The table in Appendix A summarises Black Spot Criteria between the different programs, and is explained in more detail in this chapter.

5.2.1 Location and Extent

For discrete sites (e.g. an intersection, mid-block or short road section less than 3 km), the minimum eligibility criteria is a history of at least three (3) reported casualty crashes in the last five years at the site.

For road lengths $\geq 3$ kms, the minimum eligibility criterion is an average of 0.20 casualty crashes per kilometre per annum over the length in question measured over five years or the length must be amongst the top 10% of sites identified in the State which have an identified higher crash rate than other roads.

5.2.2 Crash and Safety Considerations

Measures of casualty crashes should be provided from the most recently available five year period.

For works recommended by an official Road Safety Audit Report, the report must have been undertaken by an Accredited Road Safety Auditor.

5.2.3 Benefit Cost Ratios

The Benefit Cost Ratio (BCR) must be greater than or equal to 2.0, for reactive projects.
A discount rate of 7% shall be applied in the calculation of the BCR. Additional guidance on BCR calculations and crash reduction factors are available on the DPTI Black Spot website (http://dpti.sa.gov.au/blackspot).

For BCR calculation purposes either of the two following methods can be used and whichever provides the highest benefit can be quoted.

- BITRE costs method (crash cost based on severity)
- Austroads costs method (crash cost based on crash type).

5.3 Safe System Principles Considerations

Concept development and scoping of the nomination should consider Safe System principles - including issues such as different road users, vulnerable users, creating a more forgiving road treatment or environment and safer speed environments.

Safe System principles should be considered where feasible in the project scope prior to nomination.

5.4 Staged Construction

Complex projects should be submitted on the basis of delivery and funding over a two year period. Eligibility criteria apply to the project as a whole.

These are projects where a detailed design needs approval of an authority or where land acquisition, service relocations or availability of contractors necessitate longer project duration.

In such cases, the nomination should detail the staging and the required funding and scope of works for each year must be stipulated.

Projects that have not commenced in the first year of funding will be reviewed to determine if the project is still feasible or recommended for withdrawal or deferral.

5.5 Costs

All costs directly associated with a project are eligible for funding. The following costs cannot be claimed as part of project costs:

- Administrative overheads and other indirect costs
- Cost incurred after installation i.e. operating and running costs
- Purchase of road building plant and equipment
- Purchase of law enforcement equipment such as speed and red light cameras
- Costs involved in undertaking Road Safety Audits
- Costs involved in preparation of nominations.
5.6 Performance

Recent years have seen increased interest in the Black Spot programs. However, risk of annual under-expenditure for new road projects through project withdrawals or under-expenditure remains a concern. Previous performance in management, communication and delivery of projects to budget and timeline will be an assessment criterion.

6 PROJECT NOMINATIONS

6.1 Nominations

DPTI shall invite nominations for projects from:

- Local Councils
- DPTI
- Various other organisations or the public having an interest in road safety.

Nominations must be forwarded, using the nomination form and relevant supporting documentation, to DPTI by the closing date.

Nominations from Councils and DPTI must be endorsed by the Chief Executive Officer (Councils) or Manager, Road and Marine Assets Section, DPTI (in case there is any impact on traffic flow, it must be endorsed by Manager, Traffic Services) and include:

- Details of the crash history – (to be included in the BCR calculation spreadsheet)
- The proposed treatment including sufficient details and drawings for accurate cost estimating and to clearly show what is proposed
- An accurate cost estimate, including clear identification of risk/contingency factors and time schedule
- All DPTI project nominations must provide copy of a registered estimate
- Local Government project nominations greater than or equal to $150,000 must provide copy of detail cost estimate or the DPTI Estimating Manual can be used as a guide for developing project estimates, as well as any additional information (as per the nomination form)
- The Benefit to Cost Ratio calculation for reactive projects
- A copy of the Road Safety Audit Report for proactive project nominations
- Any other information that contributes to the details and justification of a project
- If works impact DPTI’s roads, Councils must contact DPTI’s relevant office to obtain approval in principle and attach supporting correspondence to the nomination
- Project nominations by Council on state roads shall be supported by the Road and Marine Assets Section of DPTI, as well as all concept plans and estimates
developed in accordance with DPTI standards and estimating manual, prior to the project nomination

- For any nominations involving speed reduction as part of a treatment, Councils shall contact DPTI Traffic Services (Traffic Solutions Unit) to obtain approval in principle and attach supporting correspondence to the nomination. Such proposals will need to demonstrate compliance with DPTI speed limit standards and guidelines.

Any nomination that is not from a Council or DPTI shall be assessed to ensure it meets program criteria and then referred to the relevant Council or Road and Marine Assets Section of DPTI to endorse the nomination, if applicable.

6.2 Call for Nominations

Project nominations will be sought in June through to October for the following financial year.

At the time of call, DPTI will provide supporting documentation in the form of nomination forms, BCR pro-formas and crash reduction factors to be applied in assessment of projects. Supporting information including crash maps will be available from the website.

Any cost variation must be contained within the overall project and program budget. Project estimates must therefore be accurate to ensure delivery of the program without having to defer projects.

Each nomination is to be submitted separately, if more than one nomination is being submitted.

Nominations are to be submitted as follows:

1. One original submitted by post

   Naly Sim
   Road Safety Engineer, Safety Strategy Section
   Road and Marine Services Division
   Department of Planning, Transport and Infrastructure
   GPO Box 1533
   ADELAIDE SA 5001
   Australian Government Blackspot Program SA Nominations

   And

2. One electronic copy submitted by email

   DPTI.SABlackspots@sa.gov.au

   With Subject Heading:
   ‘AGBS Program SA Nominations - [insert road location]’
6.3 Closing Date for Nominations

The closing date for nominations will be as specified in the letter calling for nominations and as published on the website http://dpti.sa.gov.au/blackspot.

Late or incomplete nominations will not be accepted.

7 APPROVAL PROCESS – ROAD SAFETY PROJECTS

7.1 Assessment of Nominations

DPTI will assess nominations for completeness and accuracy in accordance with these guidelines. Where necessary, DPTI shall consult with the nominees directly. Nominations that fail to meet the eligibility criteria or are not supported by an official Road Safety Audit Report or have insufficient information provided will not be considered.

Upon completion of the assessment, projects nominated based on crash criteria are ranked by their BCR. Proactive projects supported by an official Road Safety Audit Report are ranked by their Risk Reduction Cost Ratio from ARRB’s Road Safety Risk Manager.

7.1.1 Australian Government Program

The South Australian Black Spot Consultative Panel meets to recommend approval of eligible nominations for the Australian Government Black Spot Program, equal to the funding available.

7.1.2 South Australian Government Program

DPTI will assess remaining eligible projects for consideration for funding under the Annual Program (funded by the South Australian Government) through DPTI.

Appendix B shows the development of the Black Spot Programs for South Australian Roads.
8 INFORMATION AND RECOGNITION

8.1 Funding Deed

Councils successful in obtaining funding are required to enter into a funding deed with DPTI. This deed outlines funding arrangements, project details, conditions and reporting requirements.

8.2 Reporting

Councils are required to provide DPTI with regular progress reports on approved projects including advice of the commencement and completion dates. These reports are required to be submitted to DPTI in accordance with a reporting schedule which will be advised within the funding deed upon project approval.

8.3 Payments to Councils

Payments to Councils will be made on the basis of progress claims submitted to DPTI for completed stages of projects or as otherwise specified in the funding deed. Council payments are to be submitted to the DPTI Liaison Officer for processing, as outlined in the funding deed.

8.4 Project Signage

The road authority for the approved project shall erect signs on each road approach at the site of the project. The signs shall conform to the design shown in Appendix C and shall remain in place for one year after the completion of works. The initial cost of the signs can be charged to the cost of the project.

Signs for Australian Government funded Black Spot projects shall comply with the ‘Notes on Administration’ requirements.

8.5 Information Contact

Any enquiries about the Black Spot programs should be directed to the email address DPTI.SABlackspots@sa.gov.au or contact Ms Melissa Briggs, Senior Road Safety Engineer on 08 8343 2998.
# APPENDIX A – BLACK SPOT CRITERIA

<table>
<thead>
<tr>
<th>Who can nominate</th>
<th>Australian Government: Councils, DPTI, organisations and individuals</th>
<th>South Australian Government: Councils, organisations and individuals</th>
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<tr>
<td>Eligible Roads</td>
<td>National Highways, State and Local Roads</td>
<td>Local Roads</td>
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<tr>
<td>Endorsement of Recommended Projects</td>
<td>Australian Government - SA Consultative Black Spot Panel</td>
<td>DPTI</td>
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## Funding & Project Cost Criteria

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<th>Program Funding</th>
<th>100% Australian Government funded</th>
<th>State Government funded (DPTI Annual Program). Funding amount will vary depending on projects received</th>
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<td>Contributions to Project Cost</td>
<td>Yes – encouraged</td>
<td>Yes minimum of one third of total project cost is mandatory from Councils</td>
</tr>
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<td>Funding Distribution</td>
<td>Approximately 50:50</td>
<td>Dependent upon nominations received</td>
</tr>
<tr>
<td>Reactive Projects</td>
<td>Up to 100% reactive projects (BCR ≥ 2.0)</td>
<td>Up to 30% proactive projects (no minimum BCR, however Road Safety Audit required)</td>
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<tr>
<td>Proactive Projects</td>
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<td></td>
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<tr>
<td>Maximum funding contribution towards Project Cost</td>
<td>$2,000,000 (DPTI and Council Nominations)</td>
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<tr>
<td>Minimum Project Cost</td>
<td>$20,000</td>
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## Cost Estimate requirements

- Registered DPTI estimate required for all DPTI projects
- Detailed cost estimate required for Local Government projects ≥ $150,000 – refer nomination form and DPTI Estimating Manual

## Eligible Costs

- All direct costs including capital and design costs

## Ineligible Costs

- Purchase of road-building plant or equipment / Costs involved in the preparation of Road Safety Audits / Maintenance costs; and Costs incurred after installation

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1 NOTE: REGISTERED ESTIMATE REQUIREMENTS IN LINE WITH DPTI ESTIMATING MANUAL
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<th>Crash Criteria</th>
<th>Australian Government</th>
<th>South Australian Government</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intersection or Mid-Block (&lt; 3km)</td>
<td>3 casualty crashes in the last 5 years</td>
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<tr>
<td>Road Length (≥ 3km)</td>
<td>0.20 crashes/km/year over last 5 years</td>
<td></td>
</tr>
<tr>
<td>Crash Period</td>
<td>Recent 5 years (i.e. From 2014 to 2018 for 2020-21 program)</td>
<td></td>
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<tr>
<td>Benefit – Cost Ratio (BCR) using either BITRE costs method or Austroads costs method, whichever is higher</td>
<td>≥ 2.0</td>
<td></td>
</tr>
<tr>
<td>Discount Rate</td>
<td>7%</td>
<td></td>
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<tr>
<td>Crash Reduction Factors</td>
<td>From Australian Government Black Spot Notes on Administration and DPTI BCR calculation spreadsheet</td>
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<tr>
<td>Prioritisation (Reactive Projects)</td>
<td>Based on BCRs using BITRE methodology or Austroads crash type costs method</td>
<td></td>
</tr>
<tr>
<td>Prioritisation (Proactive Projects)</td>
<td>Based on ARRB Risk Reduction Cost Ratio</td>
<td>NA</td>
</tr>
<tr>
<td>Proactive projects</td>
<td>Require Road Safety Audit</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>Australian Government</td>
<td>South Australian Government</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-----------------------</td>
<td>----------------------------</td>
</tr>
<tr>
<td><strong>Project Delivery</strong></td>
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</tr>
<tr>
<td>Funding Deed needed between Council and DPTI</td>
<td>Yes</td>
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<tr>
<td>Time Frame</td>
<td></td>
<td>Project to be completed within the financial year unless approved as specified in Funding Deed</td>
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<tr>
<td>Approvals</td>
<td>Design and technical approvals from DPTI for works on National and State Roads Environment, Heritage and Aboriginal clearances where required</td>
<td></td>
</tr>
<tr>
<td>Project Signs</td>
<td>Yes, for projects value:</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>• &lt; $100,000 – temporary signage during construction</td>
<td>During the construction and one year after construction</td>
</tr>
<tr>
<td></td>
<td>• ≥ $100,000 – permanent signage during the construction and one year after construction</td>
<td></td>
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<tr>
<td>Reporting</td>
<td>Status reporting as specified</td>
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<tr>
<td></td>
<td>Variation Form - in case of variations to scope and/or cost</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Project Completion Report, and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>As specified in Deed or other</td>
<td></td>
</tr>
<tr>
<td>Recognition</td>
<td>All media releases to acknowledge that funding is from Australian Government</td>
<td>All media releases to acknowledge that funding is from Government of South Australia</td>
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<tr>
<td></td>
<td>Australian Government approves media releases</td>
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</table>
APPENDIX B – DEVELOPMENT OF SA BLACK SPOT PROGRAMS

1. South Australian Government funding is available only for State and Local roads.
2. Detailed crash information can be obtained from DPTI’s Crash Unit or black spot website.
4. Undertake a Road Safety Audit by an accredited auditor.
5. The cost of countermeasure must include all design, construction, project management associated costs.
6. Benefit Cost Ratio (BCR) must be calculated as per the guidelines to calculate BCRs and using crash reduction matrix.
7. Risk Reduction Cost Ratio (RRCR) must be calculated using ARRB’s Road Safety Risk Manager (if available).
8. Project nominations by Council on DPTI roads shall be supported by the relevant DPTI section, as well as all concept plans and estimates developed in accordance with DPTI standards and estimating manual, prior to the project nomination.
9. Complete nomination form and attach:
   - Crash Data
   - Proposed concept scheme
   - Road safety audit and RRCR or BCR Calculation
   - Other supporting documentation
APPENDIX C – PROJECT SIGNAGE

Australian Government Black Spot Sites
Signs erected at approved Australian Government Black Spot sites must comply with the Department of Infrastructure, Regional Development and Cities’ Signage Guidelines located under Black Spot Program. This is available on the Australian Government Black Spot website:

South Australian Government Funded Sites
Signs erected at approved South Australian Government sites must conform to the following wording and layout:

<table>
<thead>
<tr>
<th>SIGN SIZE, mm</th>
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<tbody>
<tr>
<td>15567 - A</td>
</tr>
<tr>
<td>600 x 900</td>
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<tr>
<td>15567 - B(Illust.)</td>
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<tr>
<td>900 x 1200</td>
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Note 100mm radius

80pt Helvetica Bold
Condensed, Horizontal scale 55%.

251pt Helvetica Bold
Condensed, Horizontal scale 55%.

Government of South Australia Project

NOTES:
Colour: Black legend on white class 1 background.
Yellow class 1 symbol.
Logo: Government of South Aust. Logo