

Tasmanian Emergency Risk
Assessment Guidelines
(TERAG) and the Tasmanian
Emergency Risk Register
Tool (TERR Tool)

QUICK GUIDE

TERAG 2017

VERSION 1.0

Contents

Acknowledgements

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Introduction

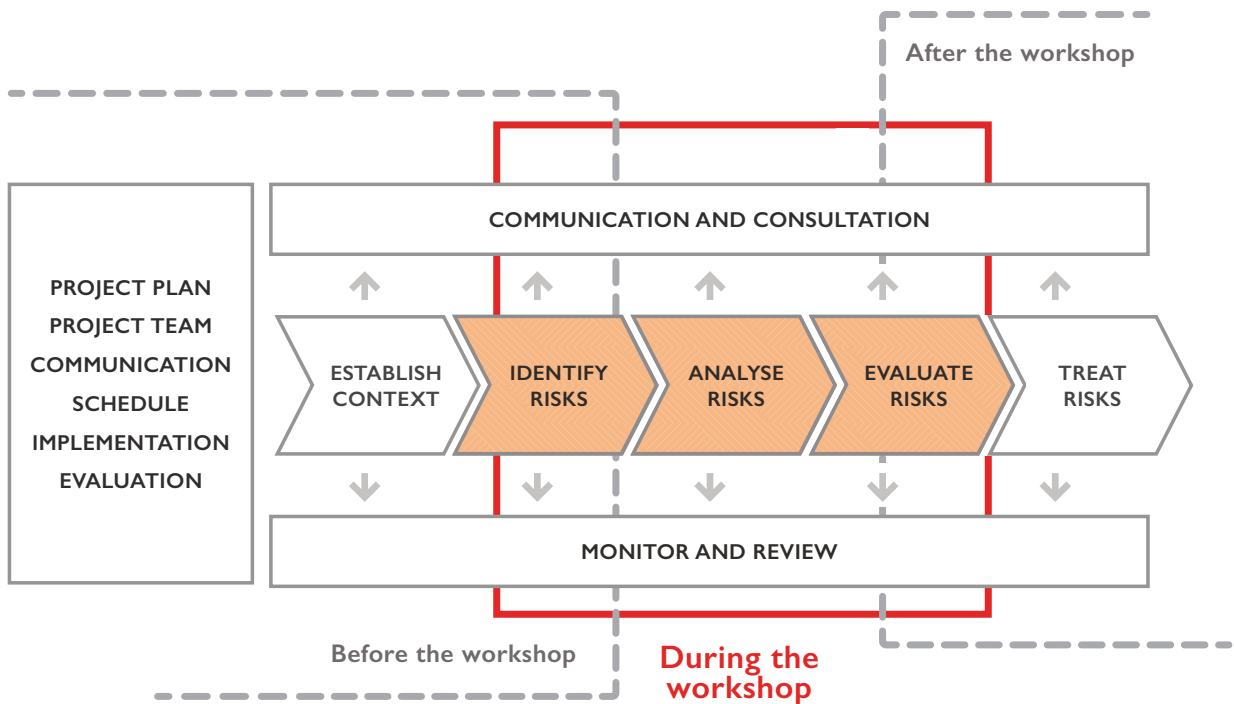
This quick guide assumes an understanding of the foundational principles of emergency risk assessment and the necessary support mechanisms for the process to succeed as outlined in the Tasmanian Emergency Risk Assessment Guidelines 2017 (TERAG 2017). If you have this knowledge, you can now carry out the emergency risk assessment process, following these quick guidelines and using the tools and templates provided in the TOOLBOX, and on the SES website. It is valuable to have participated in the Tasmanian Emergency Risk Assessment training or the online National Emergency Risk Assessment Guidelines (NERAG) training on the Australian Institute of Disaster Resilience website. Committees could consider involving an emergency risk assessment facilitator to help them get the best out of the assessment process or review.

NERAG training – join the Australian Institute for Disaster Resilience (AIDR) to access the NERAG online training course:

<http://elearning.aidr.org.au/>

Experience conducting risk assessments at the state level and nationally has shown that a facilitated workshop, with relevant stakeholders in attendance, is the most effective format for risk assessments. It gives stakeholders the opportunity to openly exchange knowledge and information between the hazard management authority listed in table 4 of the Tasmania Emergency Management Plan 8 (TEMP 8), asset and values managers, the community and committee members. Where a broad range of expertise and knowledge is used, a workshop can build a comprehensive and shared understanding of the risks posed to an individual community, economy or environment. The emergency risk assessment process tasks are therefore explained in this guide in terms of what needs to be done before, during and after the workshop (Figure 1).

FIGURE 1: ACTIVITIES BEFORE, DURING AND AFTER THE WORKSHOP



Before the workshop

The key tasks to be undertaken before the workshop are:

Project management CHAPTERS **3** **4** **5**

Establish the risk assessment project

The committee or responsible hazard management authority will have set the scope for the risk assessment and should include:

- the risk assessment objectives – is this a new assessment or a review?
- the hazards to be addressed – all or specific
- the location to which this assessment will apply – place / theme
- the vectors and impact types to be considered
- the timeframes for delivery
- any focus areas or constraints


If you haven't been provided a clear scope, check with the assessment initiators.

Assemble a risk assessment team

The team will organise and conduct the emergency risk assessment process. It should consist of two to four people with tasks and responsibilities assigned appropriately (e.g. team leader, facilitator). This team will be conducting all the following tasks.

Plan the project

The team should use a project plan to manage the risk assessment process. A simple draft project outline is included at the TOOLBOX. A project plan allows everyone to agree and understand what the scope of the risk assessment is, who is to do what and when and in what order, what any costs may be and who is responsible to pay for them. For more detailed planning consider the resources available from the Tasmanian Government project management website:

www.egovernment.tas.gov.au/project_management/getting_started_in_project_management 

For participants, there is also the need to develop scenarios and risk statements that may apply to the assessment area as well as gather the evidence that is required for the workshop. Analysis of historic events, maps of exposed areas and existing plans are all useful evidence to bring to the workshop.

Organise the workshop

Logistics tasks include sending an agenda prior to the workshop, organising an appropriate venue, arranging catering and facilities, etc. A workshop checklist can be found in the SES toolbox to be used to ensure everything is complete.

For participants there is also the need to develop scenarios and risk statements that may apply to the assessment area as well as gather the evidence that is required for the workshop. Analysis of historic events, maps of exposed areas and existing plans are all useful evidence to bring to the workshop.

Create a communication and consultation plan

Develop a plan that will keep all stakeholders informed of the progress and outcomes. This plan will outline communication and consultation with key experts, workshop participants and executives of Regional and Municipal committees. A simple communication and consultation guide is available at the TOOLBOX. For more detailed communication and consultation tools, go to the Tasmanian Government communications website:

 www.communications.tas.gov.au/channels/communication_strategy

Create an evaluation and monitoring plan for the project

Monitoring and review are applied through the risk assessment process. The assessment itself may be an annual review of the existing risk assessment or a new assessment. The project evaluation plan allows the committee and participants to understand how well they have performed the project and capture important lessons for the future. See the TOOLBOX.

Establish the context CHAPTER 6

Identify and engage with key stakeholder group

This is small group (6-8 people) who have expert knowledge of the chosen hazard(s) and local knowledge of the area being assessed. These experts are important to involve in the context-setting tasks. Stakeholders to consider are those who have legislative responsibility, those that invest in risk management activities and those who may be impacted by a hazard event. Existing committees are good at these tasks.

Establish risk criteria


The risk criteria are made up of the tables and measures used to guide the risk assessment quantification. Criteria that have been established for likelihood measures, control strength and expediency, and confidence level will be consistently applied. Consequence category levels should be reviewed by the project team as to their appropriateness for the assessment area. The state level and a recommended regional scale table are included with the other tables in the TOOLBOX.

Understand the context

The context allows us to understand the values, assets and community characteristics and aspirations of the assessment area.

Each assessment area has its own set of social and cultural values and events, critical infrastructure and essential services, strategic plans for the development of the area, and community demographics. These influence significantly the future consideration of exposure and vulnerability to specific hazards and should be understood through evidence-gathering prior to workshops.

The Torrens Resilience Institute's Community Resilience scorecard helps us build a better understanding of the community context by preparing a scorecard before assessment events:

www.flinders.edu.au/fms/documents/NPI314_Revision2020_TRI%20Toolkit%20and%20Scorecard%20Version%202020.pdf 

Identify the risks CHAPTER 7

Determine hazards to be assessed

Consider potential hazards and hazard source(s) to determine most relevant hazards to assess.

Develop scenarios

Key stakeholder group to develop the credible scenarios including a worst-case scenario for chosen hazards. Some hazards occur regularly with medium or moderate impacts that over time accrue impacts on values. A second high-return scenario should be considered for some hazards. A scenario template is provided in the TOOLBOX.

Write risk statements

Key stakeholder group to write risk statements which describe the relationship between hazard, risk and the consequences. These risk statements are placed on the risk register for analysis in the workshop. A database of risk statements is available in the TOOLBOX.

If you are using the TERR Tool, you need to enter the Risk Statement (column B), the Hazard type (column C) and the Impact area (column E). These can be used to sort the risks at a later time.

Identify current controls for the risks that are in place

The final step to consider is what currently exists to prevent the impacts of such events. These measures are called controls. A list of standard controls for each hazard is included in the TOOLBOX.

During the workshop

During the workshop it is important to encourage discussion, apply a consistent process and reach evidence-based conclusions. In order to do this, it is essential that all participants have a shared understanding of what is required and expected from the beginning. This can be done at the start of the workshop by establishing the assessment context:

- explaining the objective of the workshop and the intended outputs
- presenting and explaining the risk criteria and process that will be used to conduct the risk analysis
- presenting the context of the hazards to be assessed
- presenting the credible scenarios that will be used for the risk analysis
- outlining the risk statements/test if there are more
- presenting and highlighting vulnerabilities within the scope of your assessment that may be impacted and what these general impacts may be

It is often beneficial if these presentations are divided between the facilitator and stakeholder such as the hazard management authority's representative for the hazard being assessed, as they are likely to contribute specialist knowledge. The TEMP contains a list of the hazard management authorities for all 32 prescribed hazards.

The workshop will capture the risk analysis of the scenario driven risk statements in the risk register (see the TOOLBOX).

Analyse the risks CHAPTER **8**

Assign a consequence level

In the risk analysis portion of the workshop, participants are asked to collectively assign a consequence level to each of the risk statements that have been generated from the scenarios for each hazard. This consequence level is taken from the consequence table (see the TOOLBOX).

If you are using the TERR Tool, you need to enter the maximum Consequence level (column I) so that the tool can use it in the automatic overall Risk level (column L).

Assign a likelihood level

During the workshop, participants are asked to assign a likelihood level based on the probability of the event occurring and the probability of the consequence occurring. This initial likelihood level of the event is taken from the likelihood descriptors table.

If you are using the TERR Tool, you need to enter the event Likelihood level (column D) so that the tool can use it in the automatic overall likelihood calculation. If you have more than one hazard in your spreadsheet, be sure that each hazard scenario has an individual Likelihood level.

The probability of the consequence occurring reflects the strength and expediency of the existing controls. A schedule of controls and table of control effectiveness measures are provided in the TOOLBOX. The workshop participants will need to assess the controls effectiveness' based on their knowledge and evidence provided.

If you are using the TERR Tool, you need to enter the Control Strength (column F) and Control Expediency (column G) so that the tool can use it in the automatic overall control effectiveness (column H).

If you are using the TERR Tool, it will automatically modify the combined likelihood level (column K) based on the control effectiveness loaded at column H.

Assign a risk level

With the likelihood and consequence determined, it is possible to assign a risk level by using the risk matrix. The risk matrix is in the TOOLBOX. The matrix is preloaded into the risk register and will automatically generate a risk level based on the likelihood and consequence measures.

This calculation will be automatically done in the TERR Tool, and displayed at column L.

Assign a confidence level

This risk analysis will be used to support significant decisions of hazard management authorities, committees and communities. As the analysis considers both qualitative and quantitative information and group decision-making, it is important to assign a confidence level to the results. The confidence level will consider the supporting evidence, level of expertise and participant agreement, which are included in a table in the TOOLBOX.

If you are using the TERR Tool, you need to select the Confidence level (column J) so that the tool can use it in the automatic priority-setting calculation.

After the workshop

Dependent on the scale of analysis, it may be possible to undertake evaluation within the workshop. After results have been compiled, the following steps can be completed:

Evaluate the risks CHAPTER 9

This step involves assessing the risk analysis results from the workshop. It will be useful to determine if there are common elements at risk (e.g. certain bridges) regardless of the hazard. The evaluation process is carried out to determine if the risks are acceptable, if something could be done to lower the risk and which risks to treat first. The committee will need to:

- assign a priority to each risk
- determine how to address prioritised risks
- plan further analysis if required
- update the risk register

If you are using the TERR Tool, Priority is automatically generated and appears in column M. You then need to select the Treatment Option in column N.

Treat the risks CHAPTER 10

The purpose of this step is to determine and implement the most appropriate action(s) for risks requiring treatment. The results of the risk assessment and risk evaluation will help to inform risk treatments. Risk treatment strategies should be determined in a collective manner between the hazard managers and committees to:

- identify the treatment options
- evaluate the potential treatment options
- select the appropriate treatments
- establish a treatment plan
- update the risk register

If you are using the TERR Tool, you need to select the strategy in column N. You also need to place a freehand summary of actions and responsible entities in column P.

Monitor and review

All stages of the process are subject to regular checks to ensure that information is relevant and up to date and that the most efficient emergency risk management approach is in place. Monitoring and review should be ongoing to account for any changes either in the community environment itself, the adequacy of controls or elements of the risk. The TEMP will outline the review criteria. Committees will need to:

- review the context across the consequence categories
- review the risk components
- monitor and review the risk treatment strategies
- update the risk register

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