Project Management Fact Sheet:

Developing a Risk Management Plan

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Department of Premier and Cabinet

Tasmania
Explore the possibilities

What is Risk?

In the context of project management, **risk** refers to any factor (or threat) that may affect adversely the successful completion of the project in terms of delivery of its outputs and securing of outcomes, or adverse effects on resourcing, time, cost and quality. These factors/threats include risks to the project's business environment that may prevent the project's outcomes from being realised fully.

There are always risks associated with a project. The purpose of risk management is to ensure levels of risk and uncertainty are properly managed so that the project is successfully completed. It enables those involved to identify possible risks, the manner in which they can be contained and the likely cost of mitigation strategies.

What is a Risk Management Plan?

A Risk Management Plan summarises the proposed risk management approach for the project and is usually included as a section in the *Project Business Plan*. For larger or complex projects it can be maintained as a separate document. Refer to the *Risk Management Plan* template for more information. It is dependent upon the establishment of a *Risk Register*. At a minimum, the Risk Management Plan should cover:

- the process which will be used to identify, analyse, evaluate and treat risks both initially and throughout the life of the project, including estimated costings

- the process for transferring approved risk costings into the project budget

- the process for transferring risk mitigation strategies into the project Work Breakdown Structure

- how often the *Risk Register* will be reviewed, the process for review and who will be involved

- who will be responsible for which aspects of risk management

- how Risk Status will be reported and to whom

- include as an appendix the initial snapshot of the major risks, current gradings, planned mitigation strategies and costings, and who will be responsible for implementing them (these are usually included as an Appendix in the *Risk Register*)

What is a Risk Register?

The Risk Register records details of all the risks identified at the beginning and during the life of the project, their grading in terms of likelihood of occurring and seriousness of impact on the project, initial plans for mitigating each high level risk, the costs and responsibilities of the prescribed mitigation strategies, and subsequent results. Refer to the *Project Risk Register* template for more information.

It usually includes:

- a unique identifier for each risk

- a description of each risk and how it will affect the project

- an assessment of the likelihood it will occur and the possible seriousness/impact if it does occur (low, medium, high)

- a grading of each risk according to a risk assessment table (see *Table 1*)

- who is responsible for managing the risk

- an outline of proposed mitigation actions (preventative and contingency)

- in larger projects, costings for each mitigation strategy

This Register should be kept throughout the project, and will change regularly as existing risks are re-graded in the light of the effectiveness of the mitigation strategy and new risks are identified. In smaller projects the *Risk Register* is often used as the Risk Management Plan.

Why would you develop a Risk Management Plan and Risk Register?

A *Risk Management Plan* and *Risk Register* are developed to:

- provide a useful tool for managing and reducing the risks identified before and during the project

- document risk mitigation strategies being pursued in response to the identified risks and their grading in terms of likelihood and seriousness

- provide the Project Sponsor, Steering Committee/senior management with a documented framework from which risk status can be reported upon

- ensure the communication of risk management issues to key stakeholders

- provide a mechanism for seeking and acting on feedback to encourage the involvement of the key stakeholders

- identify the mitigation actions required for implementation of the plan and associated costings

When would you develop a Risk Management Plan?

Initial risks must be identified and graded according to likelihood and seriousness very early in the project. This initial risk assessment will form part of the *Project Proposal* or *Project Business Case* for the project. Once the project is approved the *Risk Management Plan* and *Risk Register* should be fully developed. In the case of smaller projects the *Risk Register* may serve both purposes.

What you need before you start:

- Knowledge and understanding of the project

- Knowledge and understanding of the Key Stakeholders

- Knowledge and understanding of appropriate types of risk management activities, or where to obtain them

- Any of the following optional documents – *Project Proposal*, *Project Business Case*, or *Project Business Plan*

Optional:

- Departmental Project Management Guidelines

- Corporate/Business Plan for the Department/Business Unit

How do you develop a Risk Management Plan?

The following is one way to develop your plan. It consists of a series of steps that become iterative throughout the life of your project.

Step 1: Identify the risks

Before risks can be properly managed, they need to be identified. One useful way of doing this is defining categories under which risks might be identified. For example, categories might include Corporate Risks, Business Risks, Project Risks and System Risks. These can be broken down even further into categories such as environmental, economic, human, etc. Another way is to categorise in terms of risks external to the project and those that are internal.

(Refer to generic sources of risk as described in Appendix D of the Australian Standard for Risk Management AS/NZS 4360: 2004)

For a medium to large project, start by conducting a number of meetings or brainstorming sessions involving (as a minimum) the Project Manager, Project Team members, Steering Committee members and external key stakeholders. It is often advisable to use an outside facilitator for this. Preparation may include an environmental scan, seeking views of key stakeholders etc. One of the most difficult things is ensuring that all major risks are identified. For a small project, the Project Manager may develop the *Risk Register* perhaps with input from the Project Sponsor/Senior Manager and colleagues, or a small group of key stakeholders.

The results of this exercise should be documented in a *Risk Register* for the project. For larger projects, if an outside facilitator is used, it would be expected that they would develop the initial documentation.

Step 2: Analyse and evaluate the Risks

Once you have identified your risks you should analyse them by determining how they might affect the success of your project.

Risks can result in four types of consequences:

- benefits are delayed or reduced

- timeframes are extended

- outlays are advanced or increased

- output quality (fitness for purpose) is reduced

Risks should be analysed and evaluated in terms of likelihood of occurring and seriousness of impact if they do occur. Firstly, assess the likelihood of the risk occurring and give this a rating of Low (L), Medium (M) or High (H) likelihood. Once you have rated the likelihood, assess the seriousness of the impact of the risk if it did occur and rate at Low (L), Medium (M) or High (H) seriousness.

Using your ratings for likelihood and seriousness you can then determine a current grading for each risk that in turn provides a measure of the project risk exposure at the time of the evaluation.

Table 1: Risk matrix for grading risks

Grade: Combined effect of Likelihood/Seriousness				
	Seriousness			
		low	medium	high
Likelihood	low	N	D	C
	medium	D	C	B
	high	C	B	A

Table 1 provides a standard method for calculating a grading for each risk based upon the combination of the likelihood and seriousness ratings.

So what this means in practice is:

Id	Description of Risk	Likelihood	Seriousness	Grade	Change
1.1	Inadequate funding to complete the project	medium	medium	C	↑
1.2	Lack of technical skills in Client Business Unit	high	high	A	NEW

Key:

Change to Grade since last assessment			
NEW	New risk	↓	Grading decreased
—	No change to Grade	↑	Grading increased

In the case of larger or more complex projects, the matrix should be expanded to ensure an A Grading is automatically assigned to any risks defined as extremely high seriousness.

Grade: Combined effect of Likelihood/Seriousness					
		Seriousness			
		low	medium	high	EXTREME
Likelihood	low	N	D	C	A
	medium	D	C	B	A
	high	C	B	A	A

Depending upon the size and nature of the project, some choose to use numerical scales for this analysis and evaluation.

The resulting grades of risk help the project team to focus on treating the most important risks, once evaluated and prioritised, and to mitigate them before the project progresses much further into the MANAGE Phase.

Step 3: How will you manage or 'treat' the Risks?

Using the Grading Table in Step 3, for your entire Grade A and B risks and those rated Extreme it is really important to have identified mitigation strategies very early in your project. **Risk mitigation strategies reduce the chance that a risk will be**

realised and/or reduce the seriousness of a risk if it is realised. Grade C risks should be continually monitored and have planned mitigation strategies ready to be implemented if appropriate. These plans need to be recorded on your *Risk Register*.

There are two broad types of risk mitigation strategies:

- Preventative - planned actions to reduce the likelihood a risk will occur, and the seriousness if it does occur. In other words, what should you do now?

- Contingency - planned actions to reduce the seriousness of the risk if it does occur. In other words, what should you do if?

Once a risk has occurred, recovery actions to allow you to move on should be built into the work breakdown structure for your project. In other words, what should you do when?

For each action in the *Risk Register*, it is necessary to specify:

- Who will be responsible for implementing each action?

- When the action must be implemented?

- What are the costs associated with each action (for larger projects in particular)?

Your *Risk Register* may now look something like this:

Id	Description of Risk	L	S	G	Change	Date	Action	Who	Cost	WBS
1.1	Inadequate funding to complete the project	M	M	C	↑		Re-scope project focussing on time and resourcing	PM	$$$	
1.2	Lack of technical skills in Client Business Unit	H	H	A	NEW		Develop training plan	Consultant	$$$	

This example is in brief and more detail would be added as required. For example, in larger projects separate documentation might be developed for each major risk providing much more detail regarding mitigation strategies and costings.

(Refer to the *Project Management Knowledge Base* for examples of a *Risk Register*)

Step 4: Monitor and review risks

The *Risk Register* should be visited fortnightly with re-evaluation of the risks occurring on a monthly basis. If your prevention strategies are being effective, some of your Grade A and B risks should be able to be downgraded fairly soon into the project. Risk status should be reported to the Steering Committee or Project Sponsor/Senior Manager on an agreed regular basis and form part of the Project Status reporting processes.

Remember - Risk Management is an iterative process that should be built into the management processes for your project. It is closely linked with your Issues Management processes, as untreated issues may become significant risks.

Also remember: Communicate and Consult

Even though you may have done this really well at the beginning and involved your key stakeholders in the identification, analysis and evaluation of risks, it is important to remember to keep the communication going. The communication strategy for your project should build this into the activities.

Who is responsible?

Many people involved in a project will have some responsibility for project risk management, including the project team members, Steering Committee, Project Sponsor, potential business owners and working groups. It is important that they know what they are watching out for, and reporting potential risks is a significant part of their role.

The Project Manager is responsible for monitoring and managing all aspects of the risk management process, such as:

- the development of the *Risk Management Plan* and *Risk Register*

- the continual monitoring of the project to identify any new or changing risks

- implementation of the planned mitigation strategies

- continual monitoring of the effectiveness of the *Risk Management Plan*

- regular reports on the status of risks to the Project Sponsor and Steering Committee

In large projects, the Project Manager may choose to assign risk management activities to a separate Risk Manager, but they should still retain responsibility. It should be noted that large projects are a risk in themselves, and the need for the Project Manager to reassign this integral aspect of project management may be an indication that the project should be re-scoped, or divided into several sub-projects overseen by a Project Director.

Who has ultimate accountability?

While the Project Manager is responsible for the management of risks, the Project Sponsor/Senior Manager has ultimate responsibility to ensure that an effective *Risk Management Plan* for the project is in place.

Who approves the Risk Management Plan?

Generally, the *Risk Management Plan* would be approved or endorsed by the Steering Committee/Project Sponsor or Senior Manager, depending upon the size of the project.

Once the *Risk Management Plan* has been approved, it is important to:

- add the actions into the *Project Business Plan* with the appropriately assigned resource(s)

- add the costs for the actions into the Project Budget

Where to get additional help

- Refer to the *Tasmanian Government Project Management Guidelines*

- Refer to the *Risk Identification Tool*

- The *Project Management Knowledge Base*

- Further information and resources are available from www.egovernment.tas.gov.au

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Elements of this Fact Sheet have been derived from the Australian Standard AS/NZS 4360:2004.

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