



A multi-function, multi-disciplinary business  
enterprise

Corporate Policies & Procedures

**CPP731**  
**RISK MATRIX GUIDELINES**

# TABLE OF CONTENTS

Developing a Risk Matrix .....	3
1. Consequence Table .....	3
2. Likelihood Table .....	4
3. Risk Matrix .....	4
4. CEG Resources Matrix .....	6

## Note:

The information contained in this document is to be used for training purposes only and is not representative of any real individual organisation. The information contained here comes from uncontrolled documents located from sources over the internet. The intention is to give you a learning experience in this simulated environment that you may be required to undertake as an employee, supervisor or manager in a real organisation in the future.

Therefore, only use this information to complete the activities and requirements expected of you in your training program with us.

## DEVELOPING A RISK MATRIX

### 1. Consequence Table

A consequence table is a matrix in which consequence levels are described for different types of consequences. The three main steps for creating a consequence table are:

**Step 1: Identify types of consequences that should be included in your table**

Identify all the types of consequences that will affect your agency's ability to achieve its objectives. Some common consequence types include financial, service delivery, work health and safety, stakeholder satisfaction, reputation and image.

**Step 2: Determine how many levels of consequences you need in your table**

Determine the number of levels required to describe the severity that you anticipate for the consequence types identified in step 1, as shown below:

Consequence levels	
Consequence level	Consequence level description
Very high	
High	
Medium	
Low	

**Step 3: Describe each consequence level for each consequence type.**

An example of step 3 is shown in the following table:

Consequence table – threats					
Consequence type		Consequence level			
		Low	Medium	High	Very high
	Financial loss	Does not exceed 0.1% of budget	Greater than or equal to 0.1% but less than or equal to 0.5% of budget	Greater than or equal to 0.5% but less than or equal to 2% of budget	Exceeds 2% of budget
Service delivery	Service failure across a single service group's services that can be managed within the service group	A significant disruption to business continuity across a single service group's service requiring resources from other areas of your agency	A major disruption to business continuity across multiple services that your agency provides	A significant disruption in business continuity across all major services your agency provides	

## 2. Likelihood table

A likelihood table can be used to describe the levels of likelihood for risks. The three main steps for creating a likelihood table are listed below.

### **Step 1: Determine how many levels of likelihood you need in your table**

Define sufficient levels so that each risk can be assigned an appropriate likelihood rating.

### **Step 2: Decide how to describe the likelihood**

There are various ways you can describe the likelihood; they include probability and/or indicative frequency.

### **Step 3: Describe the levels of likelihood in a table**

Each level on the likelihood scale should be described so it is easily understood and unambiguous and can be clearly distinguished from the level above or below it.

Likelihood table		
Likelihood level	Frequency	Probability
Almost certain	The event is expected to occur: – in most circumstances – frequently during the year	More than 99%
Rare		

## 3. Risk matrix

A risk matrix may be used to determine the level of a single risk by combining its consequence and likelihood. Below is an example of a 4 x 4 matrix with three escalation points. This can be adapted to your needs – for example, you may choose to use a 5 x 5 matrix with four escalation points. Note that it is not necessary to have the same number of consequence and likelihood levels.

A similar matrix can also be used to plot multiple risks to create a risk profile, such as a heat map. When you are designing your risk matrix, risks (or opportunities) can be divided into those that require no further action, those that may require action and those that demand action. You can also align these risks with the escalation actions required (see below for an example where three escalation levels have been described).

		Consequence level			
		Low	Medium	High	Very high
Likelihood level	Almost certain	10	11	15	16
	Likely	4	9	13	14
	Possible	3	7	8	12
	Rare	1	2	5	6

Risk levels	
12–16	Extreme
5–11	Moderate
1–4	Low

Risk actions and escalation points			
Group	Group description	Action required for risk	Risk escalation
12–16	Red–Extreme	Action required: risks that cannot be accepted or tolerated and require treatment	Escalated to the Head of Authority and executive  Control strategy developed and monitored by the Head of Authority or Executive
5–11	Yellow–Moderate	Potential action: risks that will be treated as long as the costs do not outweigh the benefits  As Low As Reasonably Practicable (ALARP)*	Managed at functional or service group level  Escalated to the relevant direct report to the Head of Authority for information
1–4	Green–Low	No action: acceptable risks requiring no further treatment  May only require periodic monitoring	No action required  Monitoring within the functional area or business unit

Risk tolerance table		
Group	Threat	Opportunity
Action required (12–16)	Unacceptable risks Threats that your agency <b>cannot tolerate</b> at their current levels because their consequences coupled with their likelihoods are unacceptably high	Opportunities whose positive consequences, coupled with their likelihoods, are so large that your agency must pursue them because it cannot afford to forgo the benefits associated with them
Potential action (5–11)	ALARP risks Threats that your agency is <b>prepared to tolerate</b> at their current levels if the costs associated with implementing additional control measures outweigh the associated benefits	Opportunities that your agency may wish to pursue, as the benefits outweigh the costs associated with implementing the strategies required to realise the opportunity
No action required (1–4)	Acceptable risks Threats that your agency <b>can accept</b> at their current levels after existing controls	Opportunities that your agency will give a low priority to, as the benefits are not sufficient to expend resources on pursuing

## 4. CEG Resources Matrix

When preparing a risk matrix for any project seeking approval to implement, proposal development must include:

- A consequence table identifying threats (where applicable);
- A consequence table identifying opportunities (where applicable);
- Use the 5 x 5 level matrix
- Risk levels table;
- Risk actions and escalation points;
- Risk tolerance table.

The 5x5 Risk matrix table is shown below:

Level	Probability	Consequence				
		Insignificant 1	Minor 2	Moderate 3	Major 4	Catastrophic 5
5	Almost Certain	16-High	17-High	22-Extreme	23-Extreme	24-Extreme
4	Likely	9-Moderate	14-High	15-High	20-Extreme	21-Extreme
3	Possible	5-Low	8-Moderate	13-High	18-Extreme	19-Extreme
2	Unlikely	3-Low	4-Low	7-Moderate	12-High	17-Extreme
1	Rare	1-Low	2-Low	6-Moderate	10-High	11-High