

DEWNR PROCEDURE



Government of South Australia
Department of Environment,
Water and Natural Resources

Ref: DEWNR 84/2039

Risk Management Procedure

This procedure outlines the Department's process for identifying, analysing, evaluating and treating risks consistent with the AS/NZS ISO 31000:2009 *Risk Management – Principles and guidelines*.

What guides this Procedure?

The DEWNR Risk Management Policy

AS/NZS ISO 31000:2009 *Risk Management – Principles and guidelines*

South Australian Government Risk Management Policy Statement (November 2009)

What is the scope of this Procedure?

This Procedure applies to:

- All DEWNR employees including permanent, casual and temporary.
- DEWNR supported boards and committees.
- Volunteers undertaking activities on behalf of DEWNR.

This Procedure does not apply to contractors and consultants providing goods and services to DEWNR. Effective risk management for contractors and consultants must be identified and managed throughout the procurement and contract management process. Potential risks to DEWNR arising from the procurement and contracting of goods and/or services must be identified by the Business Unit and entered in the departmental risk register.

What is the context of this Procedure?

The Government of South Australia [Risk Management Policy Statement](#) issued and jointly endorsed by the then Premier and Treasurer in November 2009 states:

"The consistent and systematic application of risk management is central to maximising community outcomes, effectively leveraging the benefit of opportunities, managing uncertainty and minimising the impact of adverse events.

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Risk assessment is integrated into planning and all other activities of the agency including significant proposals and cabinet submissions. The risk information obtained is a fundamental consideration in measured risk taking and decision making."

The DEWNR Risk Management Procedure has been developed in accordance with the requirements of AS/NZS ISO 31000:2009 *Risk Management – Principles and guidelines*.

When should this procedure apply?

Risk Management should be applied at all levels in an organisation and at all stages of an activity, function, or project. Risk Management is most effective when applied at the beginning of a project or process and monitored and reviewed regularly as part of normal business practices and project management.

Triggers for when to follow a risk management procedure include:

- strategic and business planning;
- project planning & management;
- planning for scheduled activities (e.g. a prescribed burn);
- reviewing unscheduled events (e.g. a major storm) and
- regular organisational reporting.

The primary output of the risk management procedure is the **DEWNR Departmental Risk Register**. This is one database for all of the Department's risks. The specific risks for your team, for your project or for an event that you are planning can be entered and retrieved from this database.

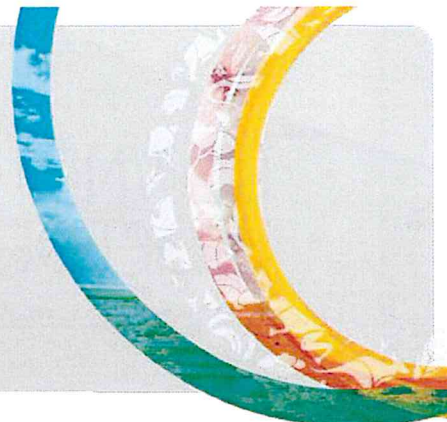
Risk Management is a process consisting of well defined steps which, taken in sequence, support better decision making by contributing a greater insight into risks and their impacts. The risk management process can be applied to any event or situation where an undesired or unexpected outcome could occur.

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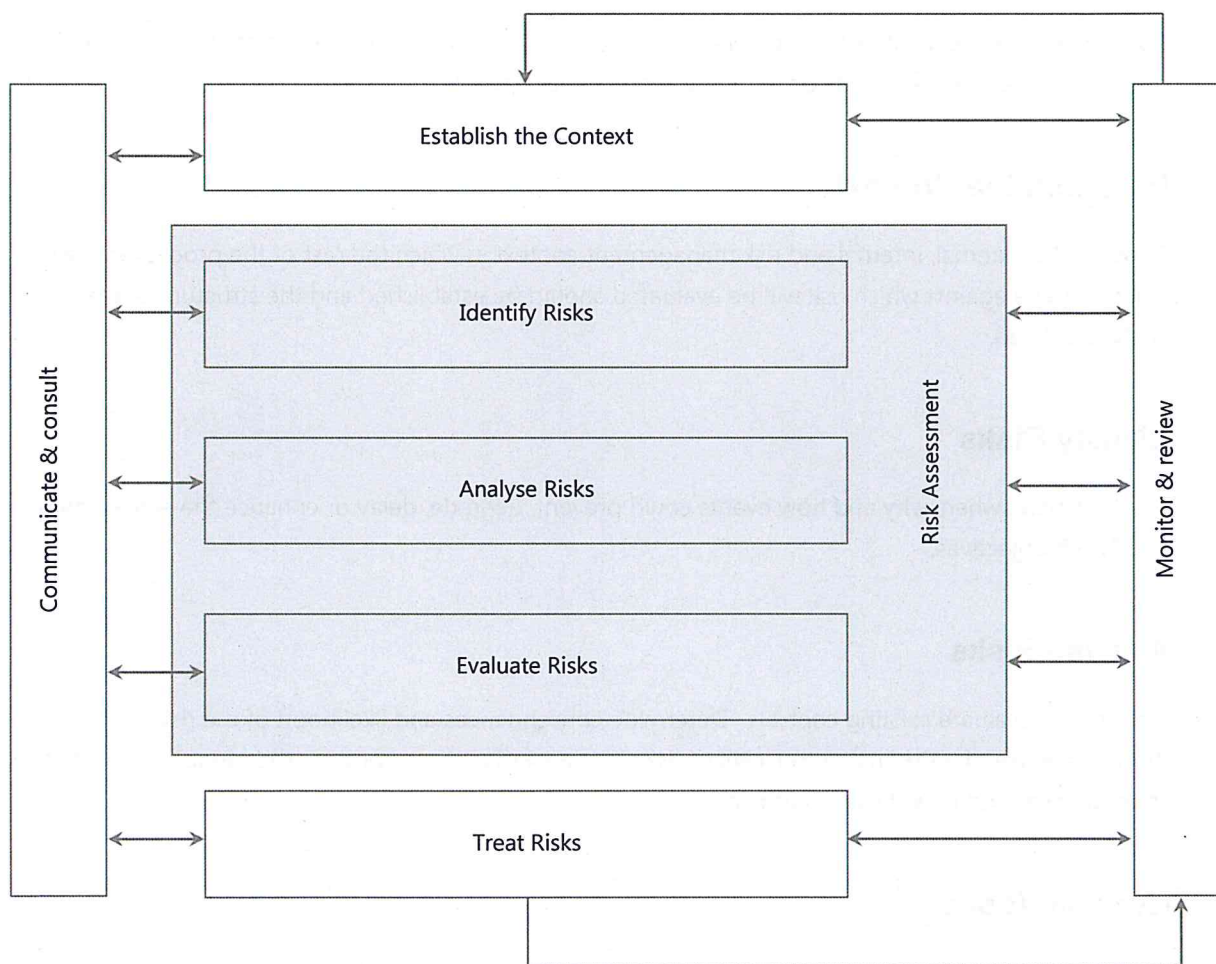
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Risk Management Process Overview



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The main elements of the risk management process, as presented in the Australian Standards for Risk Management AS/NZ ISO 31000:2009, are:

Communicate and Consult

Communicate and consult with external and internal stakeholders as appropriate at each stage of the risk management process and concerning the process as a whole.

Establish the Context

Establish the external, internal and risk management context in which the rest of the process will take place. Criteria against which risk will be evaluated should be established and the structure of the analysis defined.

Identify Risks

Identify where, when, why and how events could prevent, degrade, delay or enhance the achievement of DEWNR objectives.

Analyse Risks

Identify and evaluate existing controls. Determine consequences and likelihood of the risk, and through the use of a risk matrix the level of risk. This analysis should consider the range of potential consequences and how these could occur.

Evaluate Risks

Compare estimated levels of risk against the pre-established criteria and consider the balance between potential benefits and adverse outcomes. This enables decisions to be made about the extent and nature of treatments required and about priorities.

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Treat Risks

Develop and implement specific cost-effective strategies and action plans for increasing potential benefits and reducing potential costs.

Monitor and Review

It is necessary to monitor the effectiveness of all steps of the risk management process. This is important for continuous improvement.

Risks and the effectiveness of treatment measures need to be monitored to ensure changing circumstances do not alter priorities.

Communication and Consultation is required across the risk management process. As a result, the six steps for DEWNR managers to follow in relation to risk management are:

1. Establish the Context
2. Identify risks
3. Analyse risks
4. Evaluate risks
5. Treat risks
6. Monitor and Review

The remainder of this procedure explains in detail each of these six steps and the process required to effectively manage risk by applying these six steps in a consistent manner.

Managing risk through this process is the responsibility of each branch and region in the organisation. Once a risk has been identified it must be assigned to a risk owner. The risk owner is the individual who has responsibility for that risk. For a full definition of risk owner and other terms refer to the terms and definitions document located on the iShare risk management page
<http://ishare.env.sa.gov.au/Business/Risk-Management/SitePages/Home.aspx>

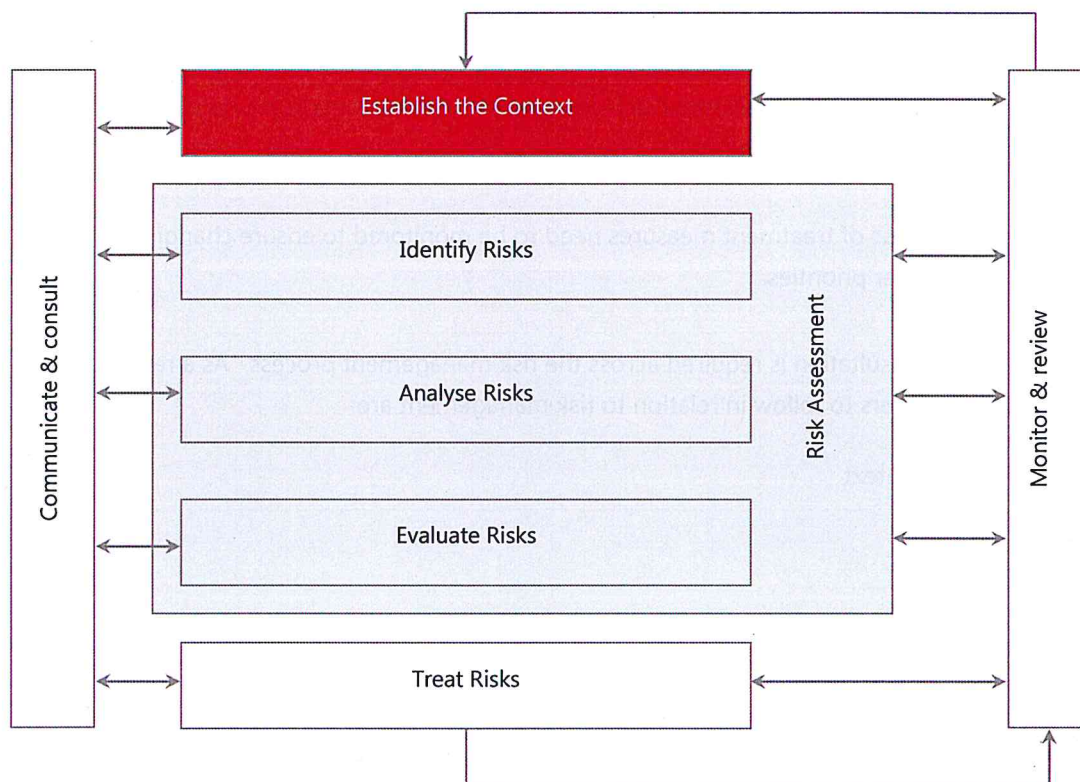
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Step 1: Establish the Context



Establishing the context defines the basic parameters within which risk must be managed and sets the scope for the rest of the risk management process.

The scope of risk assessments shall be defined and take into consideration the following:

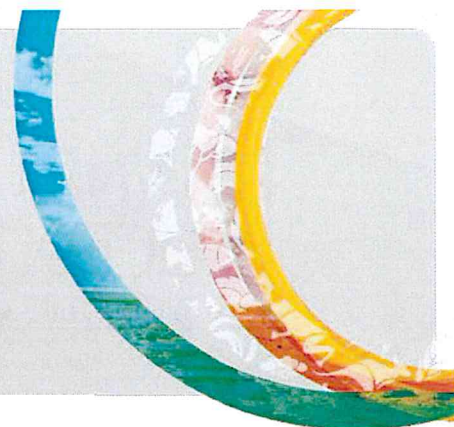
- Any boundaries or assumptions
- both the internal and external environment
- strategic/operational goals and objectives relevant to the team/project
- any relevant compliance requirements (e.g. other legislative requirements).

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The **Branch/Regional Manager** and his/her team shall:

- Review existing risk management documentation to understand risks that have already been identified and assessed previously
- involve a number of staff including any technical expertise that may be required, to undertake the risk assessment depending on the nature and scale of the risk assessment
- involve relevant stakeholders where appropriate.

Note: A key part of establishing context is to understand the criteria by which DEWNR risks will be evaluated. Decisions concerning whether risk treatment is required are to be based on their potential impact on departmental objectives. The DEWNR risk management framework refers to these objectives in a general sense through the identification of risk categories. The six categories are:

- Corporate and Government
- Financial
- Operational (business performance and service delivery)
- Health Safety and Welfare of staff and the community
- Environment
- Reputation

Details of the criteria by which risk categories are considered at the departmental level are contained in the document *DEWNR Consequences Table*. Refer to <http://ishare.env.sa.gov.au/Business/Risk-Management/SitePages/Home.aspx> and select the helpful link to 'DEWNR Risk Consequences Table'.

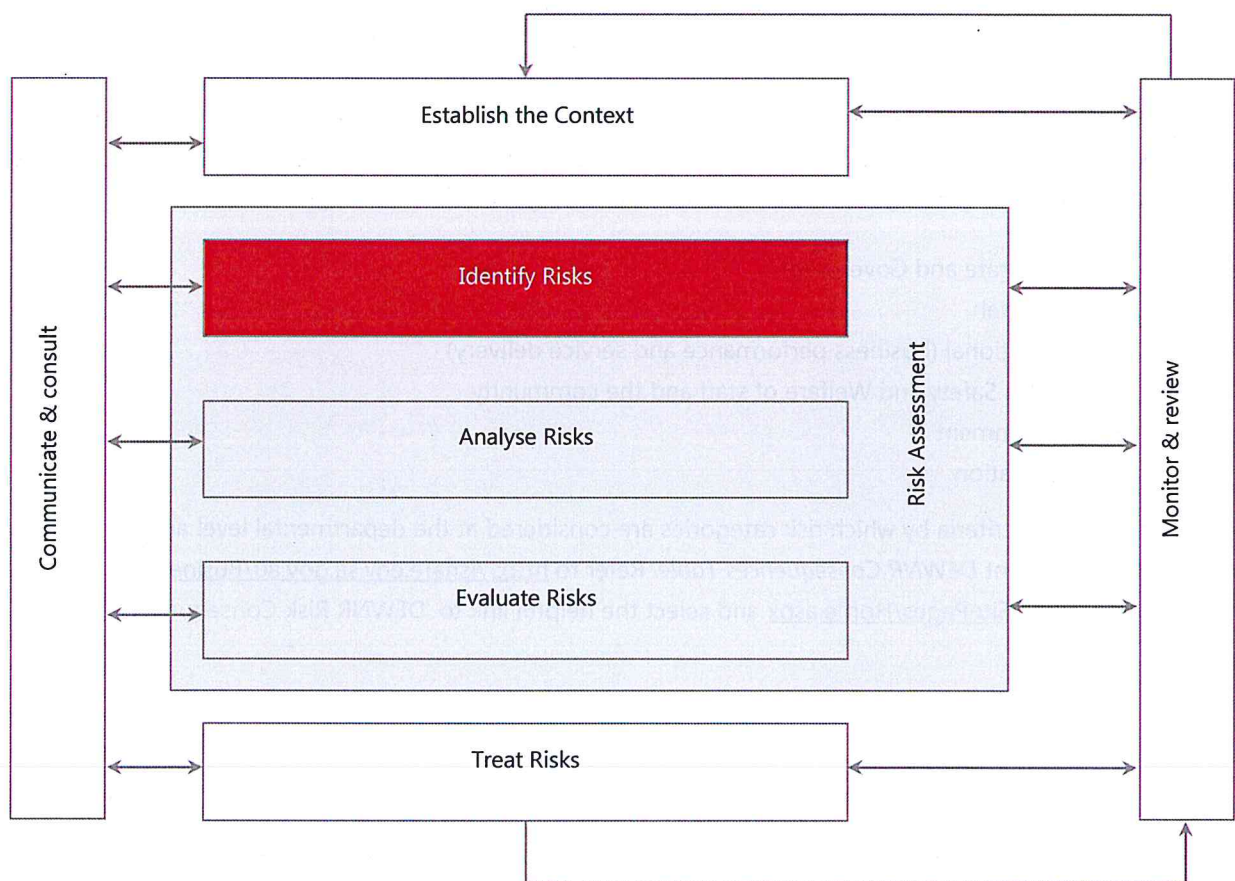
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Step 2: Identify Risks



The aim of risk identification is to develop a comprehensive list of sources of risks and events that might have an impact on the achievement of each of the objectives (or risk categories) identified in the context. The list should be as comprehensive as possible as unidentified risks can pose a major threat to the organisation or result in significant opportunities being missed.

When identifying risks you must consider what could happen, where and when. In doing this, be aware of the limits of your knowledge and seek to consult with others in this process.

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Where a risk has been previously identified, this step shall consist of confirming the completeness of the risk, having particular regard to changes in the operations within DEWNR.

When identifying the risk, the **Branch/Regional Manager** and his/her team shall clearly define each risk in words that are understood, brief and to the point.

Information for identifying risks can include:

- Local or overseas experience
- Interviews with experts, surveys and questionnaires
- Public reports
- Personal experience and past organizational experience
- Historical records of incidents and failures.

To assist in identifying a risk, methods that may be useful include:

- Brainstorming sessions with team members
- expert judgement
- past experience/history
- audit findings
- scenario planning.

In addition to identifying a risk, the possible causes and consequences should also be considered. The information in relation to causes and consequences must be brought together and entered on to *DEWNR Information Collection Template* prior to entering into the *DEWNR Risk Register*. The template can be found on the Risk Management intranet site <http://ishare.env.sa.gov.au/Business/Risk-Management/SitePages/Home.aspx> and by selecting the helpful link to 'DEWNR Managing Risk Data Collection Template'.

Consider a risk from the perspective of its source (the thing which can harm), an event or incident (something that triggers the source), a consequence (outcome or impact on others), a cause (what led to the event and the source being present) and controls (is there anything in place to stop this from happening).

Ideally a risk should be identified in the following way:

[Something happens] leading to [outcomes expressed in terms of impact on objectives] – what was the underlying cause.

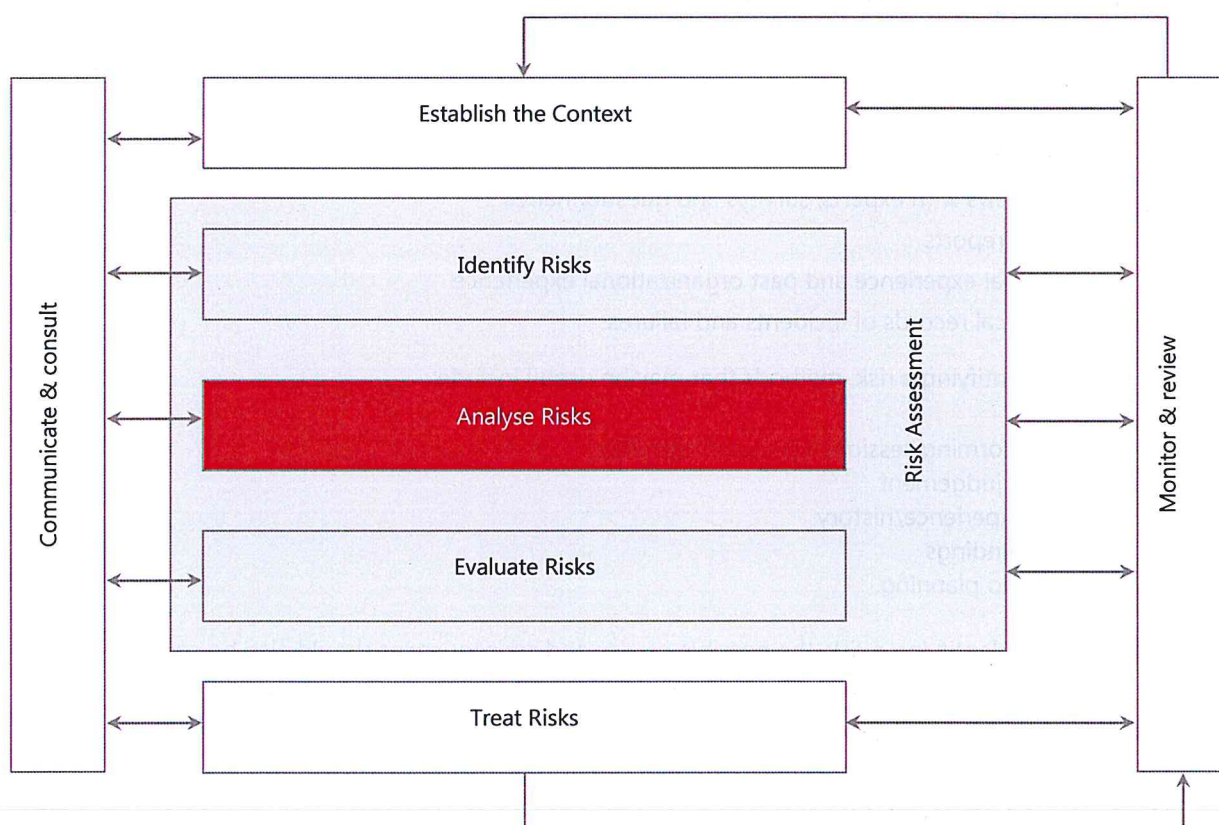
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Step 3: Analyse Risks



Risk analysis is about developing an understanding of the risk and its nature. Analysis tools enable risk to be expressed from the combination of its two components, namely, consequences and likelihood.

The level of risk is determined by combined consequence and likelihood:

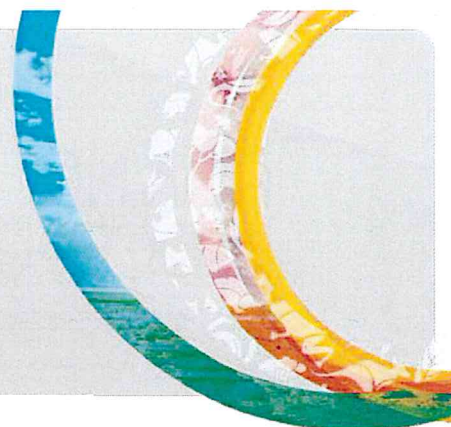
- Consequence is analysed using the DEWNR *Consequences Table*.
- Likelihood is analysed using the DEWNR likelihood scale as contained in the *DEWNR Likelihood Table*

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Both of these tables are located in the helpful links section of the Risk Management intranet site <http://ishare.env.sa.gov.au/Business/Risk-Management/SitePages/Home.aspx> Select the appropriate table from the helpful link on this page.

When the likelihood scales and the consequence criteria are combined, a risk matrix is created. A copy of a risk matrix is shown below to illustrate how the consequences scale and the likelihood scale work together.

DEWNR Risk Matrix

Likelihood		Consequence					
		Rating	Insignificant	Minor	Moderate	Major	Severe
			1	2	3	4	5
Almost Certain	Occurs more than once a month	5					
Likely	Occurs once every 1 month – 1 year	4					
Possible	Occurs once every 1 year – 10 years	3					
Unlikely	Occurs once every 10 years - 100 years	2					
Rare	Occurs less than once every 100 years	1					

Part of assessing the risk is to identify the controls that manage the risk and rating those controls as 'effective' or 'ineffective'. Once all controls have been identified and recorded in the **DEWNR Information Collection Template** an overall control effectiveness rating can be determined.

The *residual risk rating* is derived from considering the effectiveness of the controls, the potential consequence of the event and the likelihood of occurrence.

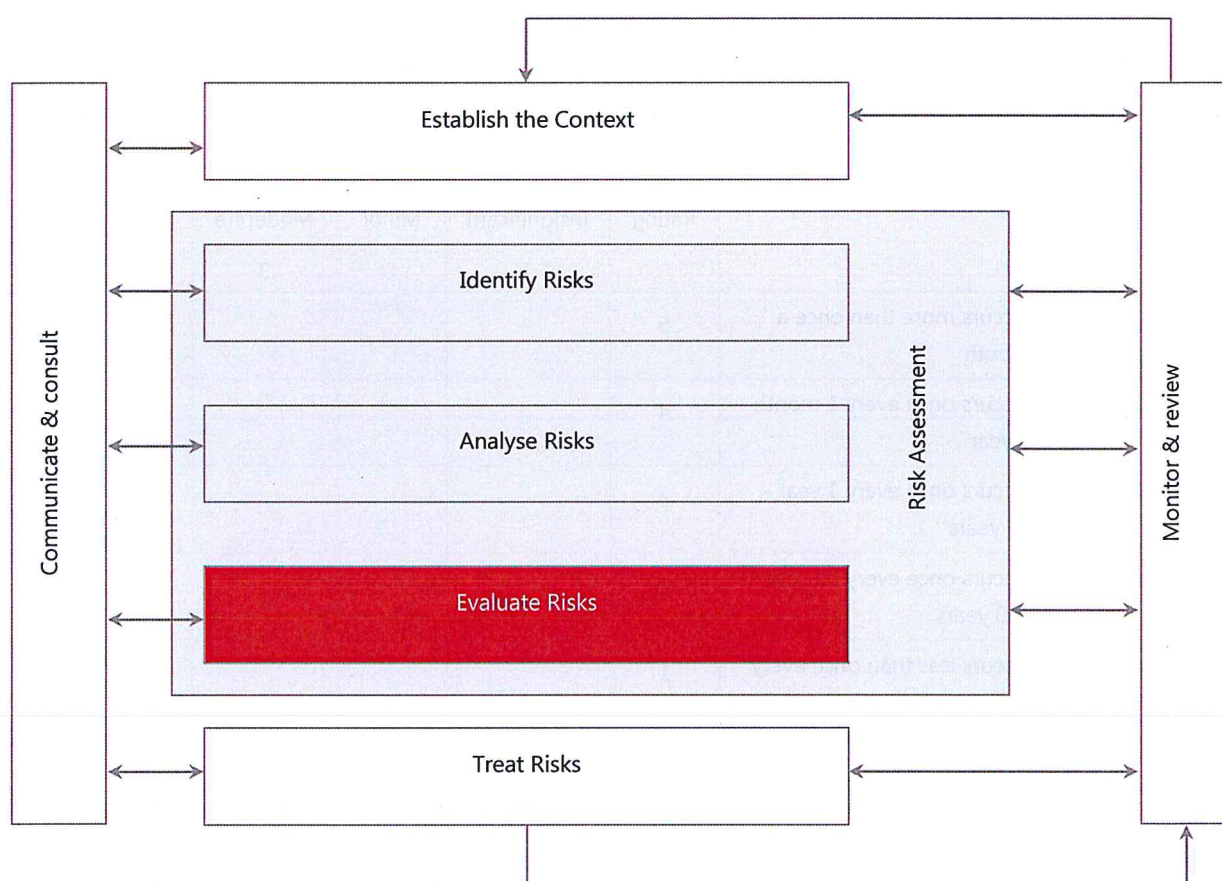
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Step 4: Evaluate Risks



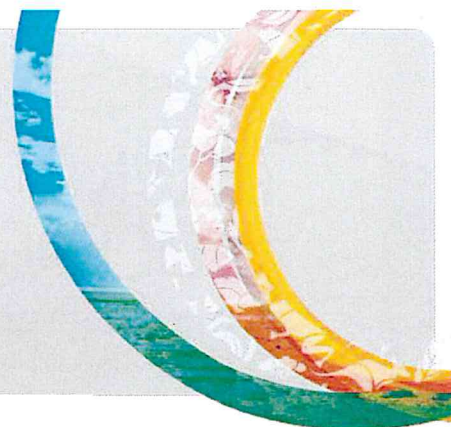
The step of risk evaluation will require you to make judgements and decisions, based on the outcomes of the previous step, (risk analysis), to identify which risks need treatment and the treatment priorities.

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The *residual risk rating* determined from the previous step shall be evaluated using DEWNR Risk Authority Level (see the table over the page). The purpose of risk evaluation is to make decisions in relation to:

- What actions are required
- the escalation process
- the type of reporting required
- which risks need treatment plan(s) developed
- establishing treatment plan priorities
- determining who the *Risk Owner* is.

DEWNR Risk Matrix

Evaluating risks means assigning some categories of tolerance or severity to each risk based on the analysis. This results in the DEWNR risk matrix shown below.

Likelihood of Consequences	Maximum Reasonable Severity of Consequences				
	(1) Insignificant	(2) Minor	(3) Moderate	(4) Major	(5) Severe
(A) Almost certain	Low	Medium	High	Extreme	Extreme
(B) Likely	Low	Medium	High	High	Extreme
(C) Occasionally	Low	Medium	Medium	High	Extreme
(D) Unlikely	Low	Low	Medium	Medium	High
(E) Rare	Low	Low	Low	Medium	Medium

The action or response to the risks assigned into the table above is determined by the DEWNR Risk Authority table shown over the page.

By using the DEWNR Departmental Risk Register this will calculate the risk rating for each risk when it's entered. The DEWNR risk register does this by using this risk matrix.

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Remember, as previously established in step 3 (risk analysis), the level of risk is determined by combined consequence and likelihood:

- Consequence is analysed using the DEWNR *Consequences Table*.
- Likelihood is analysed using the DEWNR likelihood scale as contained in the *DEWNR Likelihood Table*

DEWNR Risk Authority Table

Risk Level	Potential tolerance level	Action/Response	Reporting required and Risk review frequency
Extreme	Intolerable	Immediate action required. Treatment Plan(s) to be created and managed. Risk to be escalated to the relevant Executive Manager. Risk Owner: Relevant Executive. Risk Owner to notify the Risk & Compliance Team.	Report immediately to Executive and Risk Management & Committee. Minimum review frequency: 3 months
High	Intolerable/tolerable	Treatment Plan(s) to be created and managed. Risk to be escalated to the relevant Executive Manager. Risk Owner: Relevant Executive. Risk Owner to notify the Risk & Compliance Team.	Report to Executive and Audit & Risk Committee. Minimum review frequency: 6 months
Medium	Tolerable	Specific monitoring or procedures required, management responsibility shall be specified. Risk to be escalated to Manager responsible for process. Risk Owner: Relevant Manager.	No Reports. Risk to be reviewed by the Risk Owner on an annual basis.
Low	Acceptable	Manage through routine policy and procedures. Risk Owner: Relevant Manager.	No Reports. Risk to be reviewed by the Risk Owner on an annual basis.

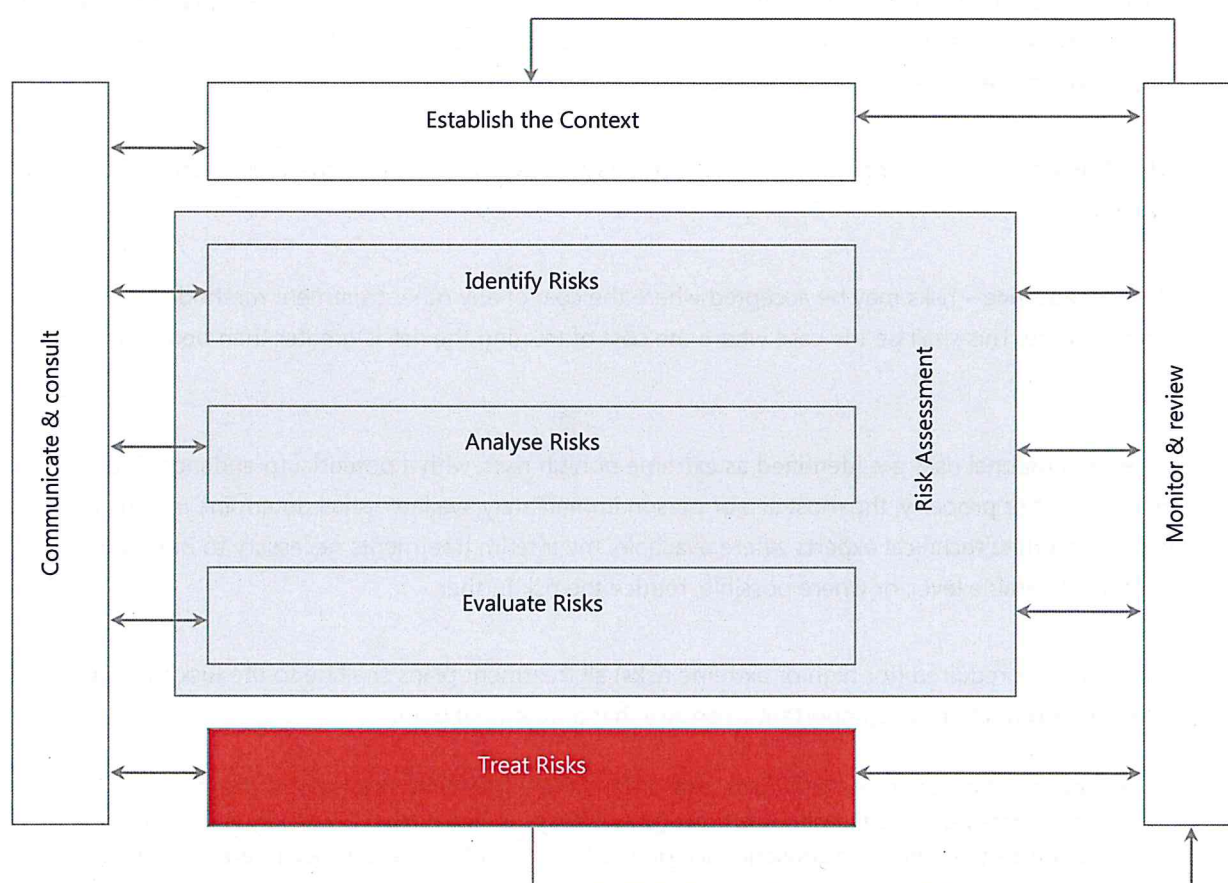
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Step 5: Treat Risks



Risk Treatment involves identifying the range of options for treating risks, assessing these options and the preparation and implementation of treatment plans.

The *Risk Owner* shall approve the risk treatments to be initiated. Treatment of the risk may include the following approaches:

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Risk Avoidance – this is where undesired risk events are avoided by taking a different course of action. This may occur when the exposure is too high.

Risk Reduction – involves the elimination of sources of risk or reducing the consequence or likelihood of an occurrence. Reducing risks associated with new and existing activities shall include further analysis. This is followed by a recommendation, implementation of agreed treatment plans, review and follow ups. Other risk reduction examples include increased procedural and management controls, quality assurance procedures, reviews and inspections.

Risk Transfer – involves the shifting of responsibility for (and hence the consequence of) risk to a third party.

Risk Acceptance – risks may be accepted where the cost of any other treatment method is inappropriate. This shall be the case where the cost of treating the risk is greater than benefit in treating it.

Where operational risks are identified as extreme or high risks, with a potential to endanger life, the environment or property, the most senior person immediately available shall determine in consultation with appropriate technical experts where available, the interim treatments necessary to bring the risk level to a tolerable level, or where possible, reduce the risk further.

When they are required (for high or extreme risks) all treatment plans shall be to the Risk Management and Audit Committee. It is important to ensure that a treatment plan:

- does not introduce new risks, or exacerbate existing risks by any proposed controls
- considers both preventative controls (preventing the event from occurring) and mitigation controls (minimise the consequence or likelihood should the event occur) are considered

Once all treatment plans have been implemented, the *Risk Owner* shall ensure that the DEWNR Departmental risk register is updated to reflect the completed treatment plans.

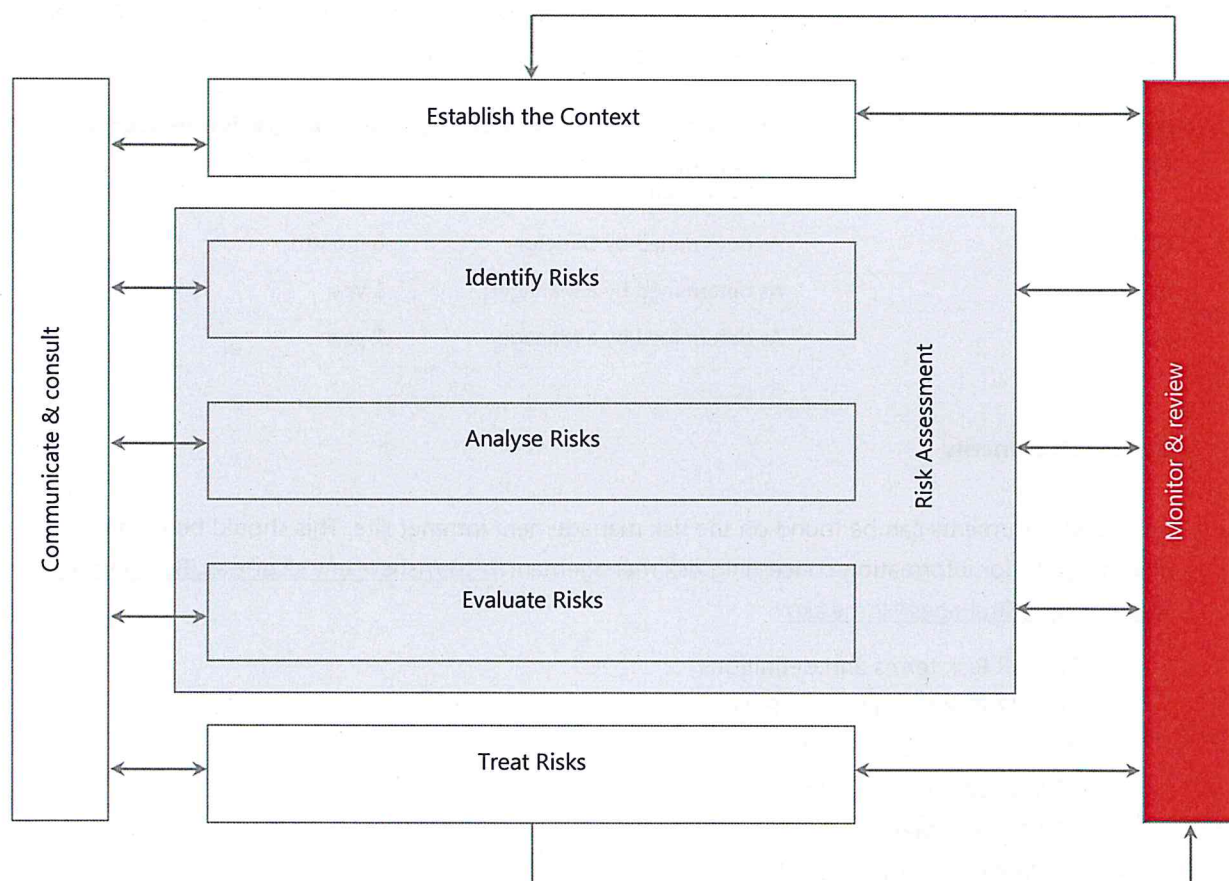
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Step 6: Monitor and Review



Ongoing review is essential to ensure that the *treatment plan* remains relevant. Factors that may affect the *likelihood* and *consequences* of an outcome may change, as may the factors that affect the suitability or cost of the treatment options. It is therefore necessary to repeat the risk management cycle (**at a minimum annually**) as part of business planning but also when triggered by something new or something changing, a project, a scheduled event or an unscheduled event.

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Monitoring enables comparison of actual performance with expected performance or required performance. The *review process* provides the opportunity for periodic investigation of a risk or group of risks, usually with a specific focus. The review process may be triggered by a new awareness of potential risk.

The review frequency of assessments is determined by applying the appropriate Risk Authority Levels based on the level of risk in accordance with the table on the following page:

Risk level	Risk assessment review frequency	Minimum review frequency
Extreme	As determined by the Risk Management and Audit Committee	3 months
High	As determined by Director	6 months
Moderate	As determined by a Manager	1 year
Low	As determined by a Manager	1 year

Related Documents

All related documents can be found on the risk management intranet site. This should be the first place to go to for information concerning risk management. <http://ishare.env.sa.gov.au/Business/Risk-Management/SitePages/Home.aspx>

- DEWNR Risk terms and definitions
- DEWNR Risk Management Policy
- DEWNR Consequences Table
- DEWNR Likelihood Table
- DEWNR Risk Matrix
- DEWNR Risk Authority Table
- DEWNR - Managing Risk Information Collection Template
- DEWNR – guideline to using the DEWNR risk register

Allan Holmes

CHIEF EXECUTIVE

DEPARTMENT OF ENVIRONMENT, WATER AND NATURAL RESOURCES

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