



GUIDELINES FOR
MANAGING RISK
IN THE WESTERN
AUSTRALIAN
PUBLIC SECTOR

MINISTRY OF THE
PREMIER AND CABINET

BETTER MANAGEMENT

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BETTER MANAGEMENT

Risk management is recognised as an integral part of better management. It is being promoted both in Australia and internationally as good business practice applicable to both the public and private sectors. In Australia the level of interest in risk management has been demonstrated by the development and publication of the Australia/New Zealand Standard for Risk Management (referred to as “the Standard”). Moreover, since July 1997 this practice has been further supported in the Western Australian public sector by Treasurer’s Instruction 109: Risk Management (TI 109), which stipulates that:

The Accountable Officer or Authority shall ensure that there are procedures in place for the periodic identification, assessment and treatment of risks inherent in the operations of the department or statutory authority, together with suitable risk management policies and practices, and that these are documented in the accounting manual or other relevant policy materials.

Risk management is defined under the Standard as the term applied to a logical and systematic method of identifying, analysing, assessing, treating, monitoring and communicating risks associated with any activity, function or process in a way that will enable organisations to minimise losses and maximise opportunities.

Risk management is more than an exercise in risk avoidance. It is as much about identifying opportunities as avoiding or mitigating losses.

Key benefits include:

- continuity of service delivery;
- better outcomes in terms of service effectiveness and efficiency;

- a rigorous basis for strategic management through consideration of key elements of risk;
- fewer costly surprises;
- greater openness in decision making and ongoing management processes; and
- enhanced accountability and corporate governance.

The process of managing risk described in these guidelines is a structured approach which enables agencies to incorporate risk management into broader management frameworks. Risk management conducted in isolation from other corporate, strategic and operational management processes cannot be fully effective. Moreover, the process described takes account of the fact that risk stems from uncertainty in the environment, not simply from the existence and activities of the agency.

The guidelines recommend that agencies follow the six-step approach promulgated in the Standard, as follows:

- establish the context;
- identify the risks;
- analyse the risks;
- evaluate and prioritise the risks;
- treat the risks; and
- monitor and review.

In addition, the guidelines recommend the level and content of documentation. TI 109, the Standard and best practice in risk management all point to the need for appropriate documentation both to ensure continued and effective implementation and to facilitate accountability.

2.0 RISK MANAGEMENT CHECKLIST

checklist

This checklist identifies the key issues, and can be used to introduce and improve risk management in your agency. It should not be viewed as exhaustive.

POLICY AND LEADERSHIP

- Does your agency have a documented policy for risk management, including objectives for – and commitment to – risk management?
- Have risk management strategies and plans been established?
- Do your agency's policy, strategies and plans comply with TI 109 and take account of the Standard?
- Does risk management have the demonstrated support of the CEO and senior management?
- Is there a senior-level risk management committee? Alternatively, are risk management issues discussed as a regular agenda item on your agency's Corporate Executive?
- Is there an endorsed "champion" (or team) at a senior level to sponsor the risk management?
- Is there a training, education or briefing program to develop a risk management philosophy at all management levels?

PLANNING, RESEARCH AND EVALUATION

- In developing its risk management plans, has your agency taken account of its political, social, economic, legal, technological and physical environments, including such stakeholders as Ministers and clients?
- Has your agency established risk criteria, ie. the level of risk it is prepared to accept from various aspects of its environment? Are the risk criteria documented?
- Has your agency systematically identified the full range of risks it faces, and the sources and consequences of those risks? Has this been documented?
- Has your agency identified opportunities resulting from risk identification?
- Has your agency analysed the likelihood and consequence of each risk? Is this documented?
- Where risks have been identified but evaluated as acceptable, has the rationale been documented?
- Have unacceptable risks been listed in order of priority according to likelihood and consequence?
- Has your agency considered the full range of options for the treatment of unacceptable risks?
- Has your agency developed treatment plans which document how the chosen options will be implemented and which state responsibilities, schedules, outcomes, budgeting, performance measures and the review process? Do these plans cover the risks for each decision, project or team?
- Are your agency's risk management plans linked into the corporate strategic plan?

IMPLEMENTATION AND MONITORING

- Does your agency have an effective critical event, exposure, incident and injury reporting system, including investigation of major events, exposures, incidents and injuries?
- Have the risk treatment plans been implemented effectively and to schedule?
- Does your agency have a risk management system?
- Is the performance of the risk management system reported to senior management for review?
- Has your agency documented its risk management practices?
- Does your agency have effective processes and mechanisms in place to ensure on-going review of implementation?
- Do the internal review and evaluation processes, including performance reviews and internal audits, take account of your agency's philosophy towards risk management when evaluating performance?
- Does your agency regularly monitor risks and the effectiveness of the plans, strategies and management and monitoring systems?

HUMAN RESOURCES AND EXPERTISE

- Has responsibility been established and communicated at all levels of your agency for the management of risk?
- Are managers required to acknowledge formally their responsibility to comply with risk management policies and procedures, including (where appropriate) making documented compliance and due diligence statements?
- Are managers empowered to manage risk effectively?
- Do your agency's job descriptions and systems for staff rewards, recognition and sanctions include risk management?
- Has your agency the knowledge and skills for managing risks? If not, what strategies are in place (including corporate education and training)?
- Is appropriate support and expertise provided to those responsible for managing risks (eg. an in-house risk adviser)?

PUBLIC SECTOR ISSUES

- Have risks which are borne by or involve a number of agencies been identified? Has the management of these risks been coordinated across the relevant agencies?
- Have opportunities to achieve cost savings in risk management by inter-agency cooperation (eg. cost sharing) been identified and implemented?
- Have inter-agency risk management strategies been evaluated?
- Is your agency's risk management approach consistent with issues relating to the Western Australian public sector environment, including corporate governance and accountability to both the Minister and key stakeholders?

The Western Australian Guidelines in Context

These guidelines are not mandatory. They do not impose new requirements but simply list existing requirements and good practices. They are provided to assist CEOs to improve and/or maintain a high standard of public sector management.

Risk management is recognised as an integral part of better management. It is being promoted both in Australia and internationally as good business practice applicable to both the public and private sectors. In Australia the level of interest has been demonstrated by the development and publication of the Australia/New Zealand Standard for Risk Management, AS/NZS 4360:1995 (referred to in these guidelines as “the Standard”). Since July 1997 this practice has been further supported in the Western Australian public sector by Treasurer’s Instruction 109: Risk Management (TI 109), which stipulates that:

The Accountable Officer or Authority shall ensure that there are procedures in place for the periodic identification, assessment and treatment of risks inherent in the operations of the department or statutory authority, together with suitable risk management policies and practices, and that these are documented in the accounting manual or other relevant policy materials.

TI 109 recommends that agencies refer to the Standard to assist agencies in achieving compliance. The Standard is useful but has not been written within the context of the complex legislative and policy-led accountabilities, responsibilities and duties of public sector agencies. The Guidelines for Managing Risk in the Western Australian Public Sector therefore aim to:

- provide a generic framework for managing risk in the Western Australian public sector;
- provide guidance for CEOs, boards, managers and staff when overseeing or implementing the development of processes, systems and techniques for managing risk, which are appropriate to the context of the agency; and
- assist agencies’ comply with TI 109.

The Guidelines have been developed in the knowledge that some agencies have already produced their own guidelines for internal use. It is not the intention to supersede such agency guidelines. Rather, this document can be used in the absence of agency guidelines, to supplement agency guidelines or to form the basis of agency guidelines.

Guidance is also available for areas of generic risk. For example, the Competitive Tendering and Contracting Process Guidelines provide guidance on risk management in contracting out.

Risk Management Defined

The Standard defines risk management as follows:

Risk management is the term applied to a logical and systematic method of identifying, analysing, evaluating, treating, monitoring and communicating risks associated with any activity, function or process in a way that will enable organizations to minimize losses and maximize opportunities. Risk management is as much about identifying opportunities as avoiding or mitigating losses.

Benefits of Managing Risk

Effective risk management assists an agency to:

- achieve continuity of service delivery to the public;
- achieve better outcomes in terms of service effectiveness and efficiency, eg. improved client service and/or better use of resources (people, information, funds and equipment);
- gain a more rigorous basis for strategic planning as a result of a structured consideration of the key elements of risk;
- avoid costly surprises, because agencies identify and manage undesirable risks, including avoidance of costly and time consuming litigation or remedial measures;
- avoid waste;
- achieve openness in decision making and ongoing management processes; and
- enhance accountability and corporate governance.

4.0 IMPLEMENTING RISK MANAGEMENT IN THE AGENCY

management

4.1 THE CHALLENGES

The Challenge for Leaders

Risk and uncertainty can have a significant impact on the achievement of an agency's mission or vision. Managing risk should therefore become an integral part of management. It needs to become part of every agency's philosophy, goals and accepted practices. It should be integral to agencies' planning, internal controls, monitoring and training.

Implementation of risk management at all levels, especially at the corporate level, is a challenge for all CEOs and managers. It will depend on:

- the support and sponsorship of the CEO;
- coordination of plans and activities across the agency;
- involvement of staff from functional areas; and
- development of an agency culture which encourages the management of risk.

CEOs and senior managers should approach the implementation of risk management as an opportunity for cultural change. This will influence managers and supervisors to recognise the need to encourage appropriate risk management behaviour in their staff and for all staff to accept the challenge of managing risks. Risk management should eventually become an integral part of effective management practice.

The Challenge for Managers

The challenge for managers is to support and encourage prudent risk management by:

- trusting and empowering staff to manage risks;
- acknowledging, rewarding and publicising good risk management;
- not focusing only on the errors, especially if minor;
- encouraging learning from unexpected results; and
- developing positive strategies for avoiding recurrence of the problem and/or consequences rather than responding by introducing restrictive controls.

The Challenge for All

Managing risk provides opportunities for managers and staff at every level to continuously improve performance by providing a structured approach to:

- decision-making which involves the identification and analysis of a broader range of options; and
- reviewing previous practices and procedures and therefore resulting in a more innovative, effective, efficient and appropriate use of resources.

4.2 IMPLEMENTATION PROCESS

The process required to establish risk at the organisational, activity, project or team level within an agency is outlined below. The following steps are consistent with those set out in the Standard.

1. Demonstrate support for risk management

Communicate the importance of risk management to senior management.

Develop a risk management philosophy and awareness of "risk" at all senior management levels. This could be facilitated by the training, education and briefing of senior management and by examining how risks have been managed in the past.

Appoint an endorsed "champion" (or team) at a senior level to sponsor the initiative.

2. Develop the agency policy

TI 109 stipulates that there be a suitable risk management policy documented in the accounting manual or other relevant policy materials. Similarly, the Standard states:

The organization's executive shall define and document its policy for risk management, including objectives for, and its commitment to, risk management. The risk management policy shall be relevant to the organization's strategic context and its goals, objectives and the nature of its business. Management will ensure that this policy is understood, implemented and maintained at all levels of the organization.

The policy should include:

- the objectives and rationale for managing risk;
- linkage between risk management and the agency's strategic/corporate plan;
- the extent or range of risks that need to be managed;
- guidance on what may be regarded as "acceptable risk";
- the level of documentation required;
- the relevance of the Western Australian Public Sector Code of Ethics and the agency's own code of conduct;
- persons responsible for managing risk;
- the support/expertise available to assist those responsible for managing risk; and
- plans for review and evaluation of agency performance in regard to the management of risk.

The agency should either develop a separate policy document for the management of risk in the agency, or alternatively incorporate risk policy explicitly as part of its broader management policies.

3. Establish the agency arrangements and culture

Develop and implement agency arrangements to ensure that risk management becomes an integral part of the planning and management processes and general culture of the agency. Issues may include:

- communicating throughout the agency about managing risk and about the agency's philosophy;
- establishing responsibility for managing risk at all levels of the agency;
- acquiring the knowledge and skills needed to manage risks, eg. use of consultants and incorporating management of risk into internal staff development and training;
- providing appropriate support and expertise to those responsible for managing risks;
- ensuring that the performance of the risk management system is reported to the organisation's senior management for review;

- ensuring the systems for staff rewards, recognition and sanctions include risk management; and
- ensuring that internal reviews and evaluation, such as internal audit, take account of the agency's philosophy towards risk management when evaluating performance.

4. Manage risk across organisations

Some risks are borne by or involve a number of organisations at the same time. This can include other State government agencies, Federal agencies, local government, the private sector and non-government organisations. Examples of such risks include:

- children at risk (Education Department, Department of Family and Children's Services, Health Department, Ministry of Justice and the Police Service);
- bush fires (Agriculture Western Australia, Bush Fires Board, Department of Conservation and Land Management, Environmental Protection Authority, Fire and Rescue Services and local government); and
- power failure (Western Power and service providers to the community which are reliant on electricity, such as the Health Department and Westrail).

Identification of these risks must occur at the strategic level and management of these risks will require coordination across organisations. Moreover, such inter-organisational strategies require evaluation.

5. Manage risk at the agency level

Develop, establish and implement plans for managing risks at the agency level through application of the risk management process outlined in the next section: The Process of Managing Risk.

The agency should apply a systematic and coordinated approach to managing risks which should be integrated with the strategic planning and management process at the corporate level.

6. Manage risks at the project, activity and team level

Develop and establish an agenda to manage the risks for each project, activity and team.

This agenda for managing risks should be integrated with other planning and management activities. It is important to link plans at this level to the corporate strategic plan when and wherever possible.

7. Manage risks at the individual level

Managers need to support and encourage staff in managing risks in the workplace.

8. Monitor and review

Develop and apply mechanisms to ensure on-going review of the corporate implementation at appropriate levels within the agency. Continually monitor and review results of previous decisions.

9. Evaluate

Internal audit, evaluation and other review and control functions play an important role in ensuring risk management practices are frequently reviewed and subject to regular reporting.

Effective performance feedback can also be achieved through independent audit appraisal and advice, stakeholder and customer surveys, external professional or industry review, and bench-marking.

5.0 THE PROCESS OF MANAGING RISK

The process of managing risk described in these guidelines is a structured approach for incorporating risk management into the broader management process of agencies. It is a set of principles, not a detailed description. The approach taken and the methods used to apply these principles will vary from agency to agency and with the type of activity.

The generic process shown in the diagram overleaf, extracted from the Standard, can be applied at any stage in the life of a policy, project, activity or asset; in initial planning; and in the evaluation of options. It can be applied at all levels of an organisation.

STEP ONE: ESTABLISH THE CONTEXT

Agencies' environments must be adequately understood and defined if the subsequent steps of the risk management process are to be effective.

Agencies' risk management needs to be consistent with the Western Australian public sector environment, including:

- issues of ethics, corporate governance and accountability to both the Minister and key stakeholders; and
- the agency's external environment, ie. the strategic context.

Agencies contribute to the achievement of outcomes beyond their immediate organisation and systems of internal control. Risk management can therefore relate to possibilities and events which influence the achievement of outcomes, not only outputs. One example is the Fire and Emergency Services Authority's Prevention and Risk Management Program which aims to reduce the incidence and consequence of fire through changing behaviours within the community.

CEOs and managers should:

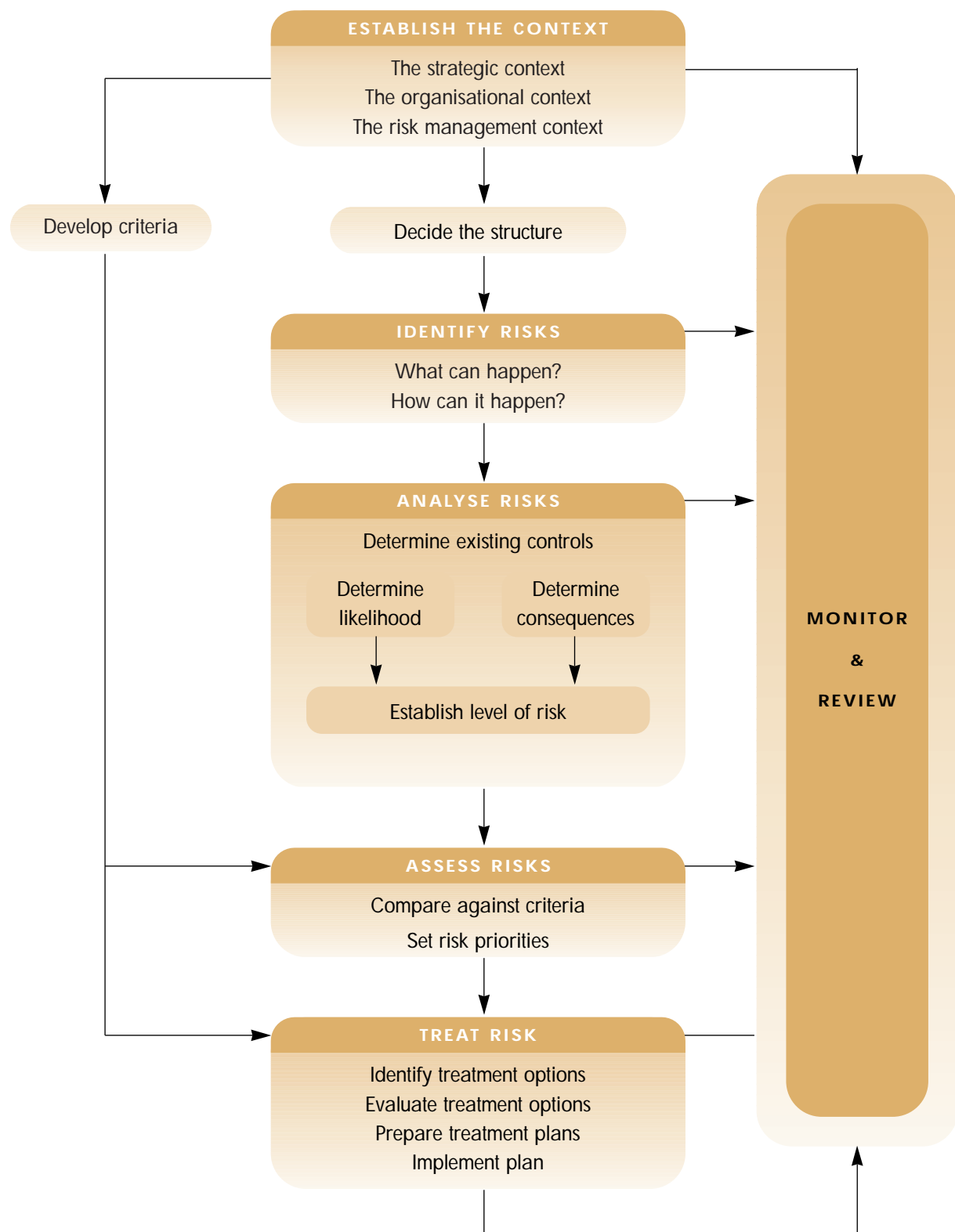
- identify inter-organisational issues, particularly where risks may be shared between organisations, or where events within the ambit of another organisation can affect your agency;

- identify their agency, division or section's role in contributing to the Government or organisation's wider goals, objectives, values, policies and strategies. (This helps to define the criteria by which it is decided whether or not a risk is acceptable, and forms the basis of controls and management options);
- define the relationship between the agency and its environment, identifying the agency's strengths, weaknesses, opportunities and threats. The context includes the financial, operational, competitive, political (public perceptions/image), social, client, cultural, legal and Government policy aspects of the agency's environment;
- identify relevant stakeholders, including clients and resource providers (where appropriate). Their interests should be defined and any accountabilities identified;
- define the scope and depth of the risk management process. It is necessary to consider whether the risk management process is to cover agency-wide issues, or be limited to a specific function, activity or project; and whether the process is to be done in the context of existing controls, without controls or with different, increased or decreased controls;
- define the structure. This involves separating the activity or project into a set of elements that provide a logical framework for identification and analysis which helps ensure significant risks are not overlooked; and
- establish risk criteria. Consider the levels of risk the agency is prepared to accept from various aspects of its environment. For example, airlines may decide that threats to passenger safety must be below an identified threshold. The risk criteria are later used to rank risks and decide whether they are acceptable in Step Three: Analyse the Risks. It is not essential that all facets of risk acceptability be defined at this point. However, major issues should be identified and acknowledged.

KEY QUESTIONS IN ESTABLISHING CONTEXT

- What is the policy, function, process or activity?
- What are its strengths and weaknesses?
- What are the major outcomes expected?
- What are the major threats and opportunities faced?
- Who are the stakeholders?
- How is the agency accountable to the stakeholders?
- What are the significant factors in the agency's internal and external environment?
- What risks have been identified in previous reviews?
- What risk criteria should be established?

RISK MANAGEMENT PROCESS



STEP TWO: IDENTIFY THE RISKS

This step requires identification of inherent risks which arise not only from the external environment but also from internal sources. Unidentified risks can pose a major threat to the organisation. It is therefore important to ensure that the full range of risks is identified. Key strategies for effective risk identification are as follows.

1. Examine all sources of risk from the perspective of all stakeholders, both external and internal. By identifying each source the agency can consider the contribution each makes to the likelihood and the consequences of the risk.
2. Focus on new projects and on areas of change. Identify and examine external and/or non-insurable risk. This would help identify risks which are either new or have not been previously identified.
3. Access good quality information to identify risks and understand their likelihood and consequences. The information should be as relevant, comprehensive, accurate and timely as resources will permit. Existing information resources should be accessed and, where necessary, new information developed.
4. Ensure that the managers and staff identifying the risks are knowledgeable about the policy, project, function or activity that is being reviewed. It may be necessary to draw from experience, knowledge and expertise from outside as well as inside the agency.

Possible Methods of Identifying Risks

- interview/focus group discussion
- audits or physical inspections
- brainstorming
- survey, questionnaire, Delphi technique
- examination of local, interstate, Federal or overseas experience
- networking with peers, industry groups and professional associations

- judgemental – speculative, conjectural, intuitive
- history, failure analysis
- examination of personal experience or past agency experience
- incident, accident and injury investigation
- databank of risk events which have occurred
- scenario analysis
- decision trees
- strengths, weaknesses, opportunities, threats (SWOT) analysis
- flow charting, system design review, systems analysis, systems engineering techniques eg. Hazard and Operability (HAZOP) studies
- work breakdown structure analysis
- operational modelling

Possible Sources of Risk

- new activities and services
- disposal or cessation of activities
- outsourcing
- commercial/legal
- economic
- socio-political
- national and international events
- personnel/human behaviour
- behaviour of contractors/private suppliers
- financial/market
- management activities and controls
- misinformation
- technology/technical
- operational (the activity itself)
- business interruption
- occupational health and safety
- property/assets
- security (including theft/fraud/impersonation)
- natural events
- public/professional/product liability

Possible Areas of Risk Impact

A risk assessment should concentrate on all significant possible areas of impact relevant to the organisation or activity, and may include:

- assets and resources, including human, physical, financial, technical and information
- cost, both direct (including budget impacts) and indirect
- people
- community groups
- Minister/Government
- performance of activities (ie. how well activity performed)
- timeliness of activities, including start-time, downstream or follow-up impacts
- organisational behaviour
- changes in agencies' roles
- environment
- intangibles

KEY QUESTIONS IN IDENTIFYING RISKS

- What, when, where, why and how risks are likely to occur, and who might be involved?
- What is the source of each risk?
- What are the consequences of each risk?
- What controls presently exist to mitigate each risk?
- What alternative, appropriate controls are available?
- What are the agency's obligations – external and internal?
- What is the need for research into specific risks?
- What is the scope of this research, and what resources are required?
- What is the reliability of the information?
- Is there scope for bench-marking with peer organisations?

STEP THREE: ANALYSE THE RISKS

In this step the level of risk is established by analysing the likelihood (frequency or probability) and its consequence (impact or magnitude of the effect). Likelihood and consequence should be viewed not only within the context of current controls which may detect or prevent undesirable risks and events but also in the absence of such controls. This will serve either to demonstrate the importance of existing controls and thus justify their continuation, or to identify those controls which are no longer necessary or cost-effective. A preliminary screening of the identified risks can be done to exclude the extremely low- consequence

risks from the review. This avoids wasting time on inconsequential risks. However, the rationale for excluding any such risks should be documented.

There are three categories of methods used to determine the level of risk: qualitative, semi-quantitative and quantitative. If the information can be used to quantify the likelihood of occurrence and the consequences, **quantitative** processes are preferred because judgement, intuition and non-quantitative experience has been found to be less reliable, particularly in the analysis of likelihood. Since some of the estimates made in quantitative analysis are imprecise, a sensitivity analysis should be carried out to test the effect of changes in assumptions and data.

Semi-quantitative approaches allocate numbers to qualitative word rankings such as high, medium or low, or to more detailed descriptions for likelihood and consequence. These rankings are shown against an appropriate numerical scale for calculating the level of risk. Information can then be processed for analysis using quantitative methods.

If using a semi-quantitative approach, it is important not to interpret the results to a finer level of precision than is actually contained in the initial word rankings. Numbers should not be given the appearance of precision where it does not exist.

The approach most readily used tends to be **qualitative**, particularly in the public sector where issues of accountability and impact on the community are highly relevant but are generally impossible or too expensive to quantify. Decisions are therefore made on the basis of managers' experience, judgement and intuition. Details of one particular method – the qualitative mapping approach – are provided in the insert below.

Possible Methods of Analysing Risks

Qualitative methods include:

- qualitative mapping (refer to insert)
- brainstorming
- structured interviews/questionnaires
- evaluation using multi-disciplinary groups
- specialist and expert judgement, Delphi technique
- bench-marking
- peer discussion or review
- structured interviews with experts in the area of interest
- networking with industry and professional associations

Quantitative methods include:

- probability analysis
- consequence analysis
- simulation/computer modelling
- statistical/numerical analysis

- network analysis
- life cycle cost analysis
- decision trees
- fault tree and event tree analysis
- influence diagrams
- use of multi-disciplinary groups and experts

For definitions of the above refer to the Glossary.

Sources of Information

- past records, including incident investigation reports
- relevant experience
- industry practice and experience
- relevant published literature
- pilot projects, experiments and prototypes
- test marketing and market research
- economic, engineering or other models
- specialist and expert judgements

STEP FOUR: EVALUATE AND PRIORITISE THE RISKS

Agencies should decide whether a risk is acceptable or unacceptable against the risk criteria established under Step One: Establish the Context. If a risk is viewed as acceptable it will not be treated under Step Five: Treat the Risks. A review of these risk criteria may be needed to ensure that criteria have been identified for all acceptable risks.

EXAMPLE OF QUALITATIVE MAPPING APPROACH

It is up to agencies, knowing their own risk criteria and organisational context, to define suitable mapping tables for their own circumstances. The following is an example of a table to determine the level of risk from the likelihood and consequences.

Table to determine the level of risk

CONSEQUENCES					
Likelihood	<i>Extreme</i>	<i>High</i>	<i>Medium</i>	<i>Low</i>	<i>Negligible</i>
<i>Almost certain</i>	Severe	Severe	High	Major	Trivial
<i>Likely</i>	Severe	High	Major	Significant	Trivial
<i>Moderate</i>	High	Major	Significant	Moderate	Trivial
<i>Unlikely</i>	Major	Significant	Moderate	Low	Trivial
<i>Rare</i>	Significant	Moderate	Low	Trivial	Trivial

The following guide can be used to describe the level of risk.

- Severe: Must be managed by senior management with a detailed plan.
- High: Requires detailed research and management planning at a senior level.
- Major: Requires senior management attention.
- Significant: Requires specific allocation of management responsibility.
- Moderate: Requires management through specific, monitoring or response procedures.
- Low: Can be managed by routine procedures.
- Trivial: Unlikely to require the specific application of resources, or can be managed through cheap, immediate resolution.

When using qualitative methods it is important not to overstate consequences. In the case of the above mapping approach, the following guide can be used to describe consequence.

- Extreme: The consequences would threaten the survival of not only the activity, but also the agency, possibly causing major problems for clients and for much of the Western Australian public sector.
- High: The consequences would threaten the survival or continued effective operation of the activity or project, or attract adverse media attention, and require top level management or ministerial intervention.
- Medium: The consequences would not threaten the activity, but would mean that the activity could be subject to significant review or changed ways of operating.
- Low: The consequences would threaten the efficiency or effectiveness of some aspect of the activity, but would be dealt with internally.
- Negligible: The consequences are dealt with by routine operations.

The categories above can change where there is potential for personal injury, sickness or loss of life.

Defining a risk as acceptable does not imply that the risk is insignificant. The assessment should take account of the degree of control over each risk; the cost impact, benefits and opportunities presented by the risks; and the importance of the policy, project, function or activity. Also, the potential consequences borne by other stakeholders affected by the risk should be considered. It may be appropriate to inform these stakeholders of such risks.

Reasons for deeming a risk to be acceptable at this stage include:

- the likelihood and/or consequence of the risk being so low that specific treatment is inappropriate;
- the risk being such that there is no treatment available; and
- the cost of treatment being so excessive compared to the benefit that acceptance is the only option.

The risks not considered acceptable are those which will be treated. These should be prioritised for subsequent management action as a component of the agency's strategic risk management and/or operating plans.

STEP FIVE: TREAT THE RISKS

Treatment Options

A combination of options may be appropriate in treating risks. Such options include:

- avoiding the risk;
- reducing the level of risk;
- transferring the risk;
- insuring the risk; and
- retaining the risk.

Avoiding the risk involves the decision not to proceed with the policy, project, function or activity that would incur the risk, or by choosing an alternative means of action that achieves the same outcome.

It should be noted that risk management is not simply an exercise in risk avoidance. There are circumstances in which the agency should retain and manage the risk because it is the organisation best able to do so.

Risk avoidance can occur inappropriately because of an attitude of risk aversion, often the product of organisational culture and control systems. Such risk aversion can lead to:

- decisions to avoid risks regardless of the information available and costs incurred in treating those risks; or
- selecting an option because it represents potential lower risk regardless of benefits.

Reducing the level of risk involves the reduction of the likelihood or consequences of risk, or both.

The likelihood of risk events may be reduced through management controls, organisational arrangements or influence over external environment. Examples include revision of procedures, quality assurance, testing, training, supervision, review, documented policy and procedures, research and development, and environmental monitoring.

The consequences may be reduced by ensuring that strategies are in place to minimise any adverse consequences, such as contingency planning, and contract conditions/arrangements.

Transferring the risk involves shifting responsibility for a risk to another party. Risks may be transferred by contract, legislation, administrative processes and insurance (see below). Risks may be transferred in full or they may be shared with another party.

As a general principle, risks should be allocated to the party which can exercise the most effective control over these risks.

Where functions and responsibilities are transferred between agencies, the agency giving responsibility for the function, its outputs and outcomes should inform the recipient agency of the risks involved. Information should include relevant risk management documentation.

Risk transfer by contract is normal business practice. This has become increasingly relevant to public sector agencies as a result of such initiatives as competitive tendering and contracting which impact upon the whole range of service delivery to both the public and government. Responsibilities need to be clearly

identified and allocated as a part of the agreement between the contracting parties. Careful consideration needs to be given to the extent to which information on risk should be provided to contractors. Agencies should consider seeking expert legal and financial advice if they adopt such a risk transfer policy.

Moreover, there are circumstances where it may not be cost-effective to transfer risks to an external partner or supplier which may be less able than the agency to manage risk. In such cases agencies should beware of the hidden cost of risk transfer, eg. higher contract prices than would otherwise apply.

The contracting out of service delivery does not lead to the transfer of such risks as service failure. The agency remains accountable for the provision of services whether provided in-house or by external contractors. However, it is imperative to ensure that contractors carry adequate protection to back up their contractual obligations and indemnities.

Other specific issues which should be considered before transferring risk include the need to ensure that:

- the agency only accepts the imposition of others' risks, or the limitation of rights it may have against others, as a last resort to achieve an outcome that benefits the public, the State, customers or clients and the agency's purposes;
- risks are not transferred unfairly to clients, particularly the public, who are in a poor position to accept them. Agencies' market strength or monopoly of supply could be used to force other parties into inequitable situations. Principles of equity and fairness should be maintained in accordance with the Western Australian Public Sector Code of Ethics; and
- the agency always endeavours to have the external provider (eg. the contractor) responsible for its own negligence, misfeasance, malfeasance etc.

Insuring the risk is common practice and is a form of risk transfer. Consideration should be given to alternatives including self-insurance at the level of the agency, the project, the process or the activity, depending on which level has the capacity best to manage the risk. The Government of Western

Australia has a policy of self-insurance for all insurable risks of government agencies, supported by purchase of reinsurance for catastrophic losses. The Insurance Commission of Western Australia manages the self-insurance arrangements through the RiskCover Managed Fund where self-insurance and/or insurance is an appropriate option.

Retaining the risk within the organisation should take place in those circumstances where it is either impossible or too costly to avoid, reduce or transfer the risk. Where risks – which would otherwise be considered unacceptable under Step Four – are retained, the decision and rationale should be carefully documented. Retained risks should be monitored, and contingency plans developed.

When implementing risk treatment, risk is rarely eliminated entirely. Alternatively, in prioritising treatment of risk, unacceptable risks may remain untreated during the period of implementation. Such residual risk should be identified, and a rationale provided for the retention of that level of risk.

Evaluating Risk Treatment Options

Options should be evaluated on the basis of the extent of risk reduction, and the extent of benefits or opportunities created. A number of options may be considered and applied either individually or in combination.

Selection of the most appropriate option involves balancing the cost of implementing each option against the benefits derived from it. The cost of treating risks needs to be commensurate with the benefits obtained. The cost-benefit analysis should determine the total cost impact of the risks, and the cost of options for managing those risks. It should be noted that there are many examples where a risk reduction option is not justifiable on economic grounds alone. Other factors, such as political or social costs and benefits, should be taken into account.

If the level of risk is high, but considerable opportunities could result from taking the risk, such as the use of new technology, then acceptance of the risk needs to be based on an evaluation of the cost of risk

treatment and rectifying the potential consequences versus the opportunities gained by taking the risk.

Special attention, however, must be given to risks having potential for causing personal injury, sickness or loss of life.

Preparing Treatment Plans

Treatment plans should document how the chosen options will be implemented. Each plan should document individual responsibilities, schedules, the expected outcome of treatments, budgeting and

performance measures, and include a mechanism for evaluation.

Implementing Treatment Plans

Responsibility for treatment of risk should be borne by those best able to control the risk. The successful implementation of the risk treatment plan requires an effective management system which specifies the methods chosen, assigns responsibilities and individual accountabilities for actions, and monitors them against specified criteria.

KEY QUESTIONS IN TREATING RISKS

- What processes and controls exist, or are needed, to minimise the level of risk?
- What performance indicators exist, or are needed, to monitor the levels of risk, the performance of the control measures and the risk treatments?
- Who has responsibility for implementing the plan for managing risks?
- What resources are needed (money, people, information, technology)?
- Has a cost-benefit analysis been conducted with respect to the risk treatment plans?
- What job design and work organisation options are appropriate for staff treating the risks?

STEP SIX: MONITOR AND REVIEW

Monitoring and review are essential for managing risk. Agencies should continually monitor risks and the effectiveness of the plan, strategies and management systems that have been established to control implementation of the risk treatments.

Risks need to be monitored and reviewed periodically to ensure changing circumstances do not alter risk priorities. Few risks remain static. Functions and processes change, as can the political, social and legal environment and goals of an agency. Accordingly, agencies should re-examine the risk context to ensure the way in which risks are managed remain valid.

The process of monitoring and review ensure that risk management strategies continue to be a vital part of the organisation's business processes. The presence of regular performance information can assist with

identifying likely trends, trouble spots and other changes which have arisen.

Possible Methods of Review

- internal checking
- internal audit
- external audit by a risk management consultant or evaluator
- external scrutiny, eg. by Parliamentary committees
- physical inspections
- program evaluation
- inter-organisational evaluations
- reviews of organisational policies, strategies and processes
- peer review
- analysis of claims data and history

KEY QUESTIONS IN MONITORING AND REVIEW OF RISKS

- Do the performance indicators address the key success elements?
- Are the assumptions, including those made in relation to the environment, technology and resources, still valid?
- Are the risk treatments effective in minimising the risks?
- Are the risk treatments cost-effective and cost-efficient in minimising the risks?
- Are the management and accounting controls adequate?
- Do the risk treatments comply with legal requirements, government and organisational policies, including access, equity, ethics and accountability?
- Are risks being borne unfairly by customers and/or external service providers?
- How can improvements be made?

6.0 DOCUMENTING THE PROCESS

documenting

Documentation of risk management is crucial to the management of risks and to meeting related accountability requirements. Indeed, Treasury Instruction 109 Risk Management stipulates:

The Accountable Officer or Authority shall ensure that there are procedures in place for the periodic identification, assessment and treatment of risks inherent in the operations of the department or statutory authority, together with suitable risk management policies and practices, and that these are documented in the accounting manual or other relevant policy materials.

Agencies should maintain an appropriate level and standard of documentation as part of the process to:

- communicate policy expectations;
- provide proper understanding of the risk management process and relevant input for training;
- ensure that the process is done correctly;
- enable decisions, processes and action plans to be reviewed;
- demonstrate accountability and provide an audit trail; and
- meet the requirements of TI 109.

Documentation for risk management need not impose another layer of paperwork on agencies. Decisions and processes involving risk management should be documented to the extent appropriate to the circumstances, and no more. Thus, a process which is of low consequence may be documented only by a diary note or a brief minute on file. On the other hand when, for example, designing a major client service delivery operation, a detailed explanation of the service should be available for management, audit and review.

Where agencies include risk management within their strategic and operational planning, risk management plans can be integrated into existing planning and reporting frameworks.

The notes below provide a step-by-step account of the documentation resulting from the risk management process. Appendix One: Risk Management Documentation summarises a suggested range of risk documentation.

Step 1: Establish the Context

For a major review, this step should be documented to demonstrate that the full range of environmental and contextual factors have been considered; to ensure a consistent appraisal of risks using the established risk criteria; and to maintain the profile of stakeholders and issues of accountability. Documentation should identify the function, its intended outcomes, relevant stakeholders, factors in the internal and external environment, risk criteria, and the level of documentation required in subsequent stages.

For a low-level activity, a brief record of the analysis may be appropriate.

Step 2: Identify the Risks

List each risk and identify its source and consequences. Classify risks under functional groups where appropriate. Identify each control process. Identify areas of research if appropriate. It should be noted that a formal risk register arrangement is a useful tool in performing this and the following steps, particularly in large and complex agencies.

Step 3: Analyse the Risks

Document the rationale for the exclusion of very low risks. For all other risks, document existing controls, likelihood of occurrence with or without the control, the severity of consequences with or without the control, and the resulting level of risk. The documentation should also explain the method of analysis used.

Step 4: Evaluate and Prioritise the Risks

List the acceptable risks and state the reasons why they are considered acceptable. List unacceptable risks in priority order.

Step 5: Treat the Risks

Document the list of feasible options for treatment; the risk action plan for implementing risk treatments; and the level of residual risk and rationale.

Step 6: Continually Monitor and Review

Document the implementation review plan.

7.0 CONCLUSION

conclusion

Risk management is recognised as an integral part of better management practice, and as providing significant benefits to organisations and their stakeholders. The guidelines documented above and the case studies provided below have been developed with the aim of assisting agencies not only in complying with TI 109 but also in benefiting from a structured and cost-effective approach to risk management.

STUDY ONE: A CORPORATE APPROACH

The Western Australian Department of Training (WADOT) is responsible for managing vocational education and training (VET) in Western Australia. WADOT develops strategic direction and policy, promotes the development of an open and competitive training market, allocates resources to purchase training services, and ensures quality training provision. WADOT is also responsible for the development, promotion and coordination of work-based training programs and services.

WADOT has implemented a whole-of-agency approach to risk management. The key impetus was provided by the planned reform of the training system in Western Australia which resulted in the enactment of new legislation to govern the operation of VET in the State including the establishment of TAFE colleges as Statutory Colleges. The VET Act was to fundamentally change the role WADOT – from predominantly a provider of VET services through its network of TAFE colleges; to a planner, funder, purchaser and regulator of VET services in a market supplied by independent statutory TAFE colleges and private providers. The whole-of-agency risk management approach therefore aimed to reflect this significant change in WADOT's activities and risk environment. Further impetus was provided by the Circular on Risk Management and Public Sector Reform issued by the Ministry of the Premier and Cabinet in December 1994.

WADOT engaged Price Waterhouse in March 1995 for Phase One: to undertake a risk management analysis of its operations. WADOT then engaged Stanton and Partners in April 1996 for Phase Two: to continue the analysis and to facilitate the implementation of the department's risk management plan by working directly with the branches and through a skills transfer arrangement with staff.

Phase One involved developing an understanding of WADOT's operations, identifying its strategic goals and risks, and developing an agreed risk management framework compatible with WADOT's management structure and business culture. The consultants

undertook a strategic analysis of both external influences on WADOT (political, economic, social and technological) and internal factors to identify the strategic, macro-level risks. The consultants then focused on the operational issues facing functional divisions within WADOT and the TAFE Colleges which were then part of WADOT. This process involved:

- identifying key functions and tasks within each division or college;
- identifying the material risks associated with each function and task; and
- assessing the probability and impact of each material risk.

Information from these activities was consolidated into a risk management report and plan which highlighted strategies for managing the risks. Key risks identified and prioritised for management included:

- quality of training falling as a result of devolution;
- devolution to the colleges leading to duplication and diseconomies;
- low quality data from colleges resulting in poor executive information and decisions;
- inaccurate information to the Minister;
- risks relating to contracting out – including industrial relations, effectiveness of contracting out, and difficulties with establishing performance indicators; and
- funding concerns – including risk of loss of support from industry, and the risk of not meeting the Australian National Training Authority's vocational training targets.

Commencing in April 1996 Stanton and Partners were engaged to co-ordinate, monitor and facilitate the implementation of WADOT's Risk Management Plan. Key outcomes included:

- transfer of risk management skills to WADOT officers so that WADOT would have available the necessary skills in house to maintain and further develop its risk management strategies;
- review of the risk registers developed in Phase

One to reflect the significant changes which had occurred in the interim; and

- incorporation of risk management as good management practice with branches and operational units being responsible for the identification, analysis and implementation of their own risk management strategies. (Risk management is now integrated into branch operational plans and incorporated into managers' duty statements.)

It is a key feature of WADOT's approach to risk management that each branch is responsible to identify, develop and implement its own risk management strategies. Branches are supported where necessary by the Performance and Review Branch which reports regularly on progress to WADOT's Performance and Audit Committee. The newly-established statutory TAFE Colleges are responsible for their own risk management.

KEY POINTS

- WADOT has adopted a strategic, corporate approach to risk management.
- WADOT has used the risk management process to facilitate change management with respect to its environment, objectives, structure and operations.
- WADOT reviewed its risks after its structure and the devolution of the colleges.
- WADOT included the TAFE colleges in the risk management process prior to devolution. This established risk management in the now independent TAFE colleges, thereby reducing such risks to WADOT as planner, funder, purchaser and regulator and therefore as a continuing stakeholder in the colleges.
- Risk management has been made integral to good management practice and is formally incorporated in branch operational plans and managers' job descriptions.

STUDY TWO: FIRE PREVENTION

The Fire and Emergency Services Authority (FESA) has established a systematic and structured prevention and risk management program with the stated aim "to reduce the number and impact of emergencies by proactive management of risk". The agency's functions are now viewed as either primary, secondary or tertiary prevention. Primary prevention includes strategies such as general public awareness campaigns. Secondary prevention is more targeted, with specific prevention strategies such as "Community FireGuard" aimed at people living in high-risk bush fire areas, and education targeted at specific actions or community groups. Tertiary prevention embraces all those activities employed to deal with emergencies once they have actually occurred, and includes fire suppression and hazard containment.

FESA's commitment to a stronger emphasis on prevention and risk management is underlined by the establishment of a Directorate of Prevention and Risk Management.

FESA adopted the Standard to help advance both corporate and community risk management in a structured and comprehensive way. A key example is the application of the Standard to the seniors accommodation fire safety initiative designed to enhance fire safety arrangements for people living and working in the seniors care and accommodation industry.

Administrators and personnel operating in the seniors accommodation sector have a duty of care to ensure, among other things, a high level of safety for their customers and staff. FESA traditionally addressed the matter of fire safety in these situations through regular

inspections of individual premises and the provision of advice to service providers about perceived deficiencies and the lack of compliance with relevant standards contained in the Building Code of Australia. Through this process it became apparent that the level of fire safety varies significantly between establishments.

A fire at a major metropolitan centre in mid-1995, which resulted in the deaths of two residents, highlighted the need for a more holistic approach to fire prevention in this community sector. As a result of this incident, FESA and Aged Care WA jointly initiated a major review of fire safety and prevention services. Staff from both agencies worked closely with representatives from the seniors care and accommodation industry and the Office of Seniors Interests on a risk management approach aimed at enhancing conditions across the whole industry rather than on a centre-by-centre basis.

The many other stakeholders in this area include Federal, State and Local Government authorities, churches and other community groups, and private sector organisations. Their involvement ranges from

funding and services policy, allocation and standards; to service delivery administration requirements and regulations; stipulations for health and welfare; industrial relations; and building approvals and construction, maintenance and safety regulations.

The outcome to date has been a comprehensive overview establishing the context (Stage One of the risk management process), contributed to and endorsed by all stakeholders. This is the first time that such a consolidated view of the sector has been available. Moreover, it is the initial step in developing a strategy to enhance fire safety, which will lead to policy statements to both the State and Federal Governments. A survey of nursing homes and hostels will now be carried out to ascertain the current level of fire safety arrangements. Information obtained from the industry profile and risk analysis survey will be used to measure the extent of the risks; to prioritise treatment of the risks; and to propose sector-wide funding submissions for upgrading accommodation facilities and work practices to minimum levels that ensure the duty of care is fulfilled.

KEY POINTS

- FESA is applying a risk management approach to the achievement of outcomes, as embodied in their mission: “to minimise the number and impact of fires and other emergencies on the people, property and environment of Western Australia”. The FESA approach is not limited to internal assets, processes and/or outputs.
- FESA has adopted and used the Standard to positive effect.
- FESA has involved other stakeholders, including Federal, State and Local Government agencies, non-government organisations and the private sector in the development of a comprehensive strategy.

STUDY THREE: REDUCING THE COST OF WILFUL AND ACCIDENTAL DAMAGE TO BUILDINGS

Context

Wilful and accidental damage to public buildings costs the State Government millions of dollars each year. The Department of Contract and Management Services (CAMS) and the Interdepartmental Steering

Committee on the Reduction of Wilful and Accidental Damage to Government Buildings are actively managing this problem using risk management principles in line with the Standard. The committee comprises representatives from CAMS, Education, Health, Police, Fire and Rescue, Treasury, the Department of Local Government and RiskCover.

Risk Identification

Incidents that contribute to the cost of damage to buildings include vandalism, graffiti, breaking and entering, arson, accidental fires, floods and storms. These have been identified as the risks that need to be managed to reduce the problem.

Risk Analysis and Assessment

Each of the risks listed above has been quantified according to its frequency (how often it may occur) and its severity (impact or consequence). All of the data needed to conduct this analysis was available from CAMS' existing building maintenance systems, so no additional expenditure was required for data collection. This meant that a quantitative, rather than a qualitative, approach could be used for the purposes of risk analysis.

The data analysis indicated that the risks (vandalism, arson etc.) could be categorised either as low frequency and high severity or as high frequency and low severity. None of the risks fell into the category of both high frequency and high consequence. The highest costs were being incurred in the case of high frequency, low severity risks such as vandalism. These risks were costing on average about \$250 each, but were happening with such high frequency that the total cost of the risk was very high.

Further analysis was carried out to determine the locations that were suffering the highest cost of this type of damage.

Risk Treatment

The committee considered several options for managing the risk of vandalism. One such option was the installation of a fence to reduce the likelihood of vandals getting close enough to the building to cause damage. Such a strategy was not intended to eliminate the risk, merely to reduce its frequency.

Consideration of the options included whether the cost of implementing the solution would exceed the value of savings made in reduced vandalism. There was no data available at that stage to support the proposal, so the committee agreed to conduct a trial and monitor the results closely.

Funding for the trial was sought and obtained from a provision in the Building Damage Management Fund (BDMF) managed by CAMS.

Monitoring and Review

The installation of the fence resulted in an immediate reduction in the frequency of vandalism on the trial premises. The savings made in reduced vandalism costs paid for the cost of the fence in less than twelve months. The situation was monitored closely and the results reviewed by the committee. As a result of the documented evidence, the strategy has been implemented at other locations.

The strategy has been found not to be suitable to all locations. Moreover, hidden cost implications have been found to include increased vandalism in neighbouring properties and social costs such as image, reputation and loss of community use of facilities.

KEY POINTS

- CAMS and the inter-agency committee have instigated a cross-agency approach to managing a common problem.
- The risk has been managed according to the principles and practices described in the Standard and in these guidelines, including the six steps: establish the context, identify risks, analyse risks, assess risks, treat risks, and monitor and review. CAMS has now formally established a risk management policy which requires use of the Standard.
- Resources have not been wasted on excessive risk avoidance, eg. attempting to fence all Government properties. The effectiveness of the initiative has been monitored, and its benefits and limitations identified and measured, demonstrating that the initiative is effective in specific circumstances.
- The case demonstrates the value of information systems and funding arrangements which facilitate the application of risk management.

STUDY FOUR: CHLORINE MANAGEMENT

Context

The Water Corporation provides water and wastewater services to 500,000 customers incorporating almost the entire population of Western Australia. Services to its customers run 24 hours per day and seven days per week. The size of the water schemes involved ranges from very small, isolated schemes servicing fewer than 35 customers to the large population centre of Perth.

The management of chlorine is a key element in the provision of clean, healthy water and in the treatment of wastewater. In its use as a water and wastewater treatment chemical, chlorine presents no danger to the Corporation's customers. However, like most chemicals, chlorine presents dangers in its concentrated forms. The procedures in moving, handling, storing and dosing the concentrated forms of chlorine therefore need to be managed responsibly at approximately 250 sites.

The Corporation does not have sole discretion over approved procedures involving licensing, siting and handling chlorine. A number of agencies are involved in assisting the Corporation in the safe management of chlorine. These include such agencies as the Department of Minerals and Energy, Department of Health, Department of Environmental Protection, National Health and Medical Research Council, Western Australia Hazardous Materials Emergency Management Scheme and the Fire and Rescue Service. The guidelines and regulations for the successful management of chlorine have therefore been developed by the Corporation and other stakeholder agencies. A common feature of the

policies, guidelines and regulations developed by these stakeholder groups is the development of safety criteria based on acceptable risk.

Risk Treatment

In developing its risk management approach to chlorine management, the Corporation has faced a number of challenges including:

- limited scope for reducing the likelihood of risk events. The focus is therefore on limiting consequences of, for example, a chlorine spill by developing an incident management process and contingency plans;
- the risks involved in the processes employed by the Corporation in managing chlorine; and
- the diversity of stakeholder groups which present the Corporation with the complex task of managing their requirements.

The Corporation has achieved simpler, more transparent and auditable management of chlorine. Key features of the Corporation's approach which have made this possible include:

- leadership by senior management through the Chlorine Project Steering Committee;
- the application of the Standard which allows the Corporation's stakeholders to review their own processes in terms of sufficiency and adequacy ;
- a structured approach to risk management which enabled the Corporation to focus on impact mitigation; and
- continuous formal review internally by the Corporation.

KEY POINTS

- The Corporation has adopted a highly structured approach to risk management, including the establishment of a steering committee, consultation with stakeholders and continuous formal review.
- By understanding and applying the principles of risk management, the Corporation has been able to allocate its resources effectively by focusing on managing the consequence of risk events rather than reducing their likelihood.
- The Corporation has adopted the Standard.

8.0 BIBLIOGRAPHY

bibliography

Australian/New Zealand Standard 4360: Risk Management (1995), Standards Australia, Homebush, NSW

Competitive Tendering and Contracting Guidelines (revised 1998), State Supply Commission, West Perth, WA

Guidelines for Managing Risk in the Australian Public Service (1996), AGPS, Canberra, ACT

Managing risk in procurement – A handbook (1996), AGPS, Canberra, ACT

Risk Assessment Guidelines (1996), Water Corporation of Western Australia, Leederville, WA

Risk Management and Internal Control, New South Wales Treasury, Sydney, NSW

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BETTER MANAGEMENT

This appendix is based on the Standard. The documentation required will vary from agency to agency according to circumstances and specific risks. Moreover, agencies may prefer to integrate this information into other documents rather than develop separate documentation. In this case it would be appropriate to develop a single document which lists and locates the relevant information on risk management policy, practices and procedures. This appendix does not therefore constitute a definitive statement of the documentation needed to conform with TI 109.

Documentation should include the following.

Organisation Policy Statement, which should include:

- the objectives of the policy and rationale for managing risk;
- the links between the policy and the organisation's strategic/corporate plan;
- the extent or range of issues to which the policy applies;
- guidance on what may be regarded as acceptable risk;
- who is responsible for managing risks;
- the support/experience available to assist those responsible for managing risks;
- the level of documentation required; and
- the plan for reviewing organisational performance in regard to policy.

Risk Register, which should record for each risk identified:

- source of the risk;
- nature of the risk;
- existing controls;
- likelihood and consequences;
- initial rating; and
- vulnerability to external/internal factors.

Risk Treatment Schedule and Action Plan, which should document the management controls to be adopted and list the following information:

- who has responsibility for implementation of the plan;
- who is to be involved – stakeholders, personnel, participants, contacts etc;
- what resources are to be utilised;
- budget allocation;
- timetable for implementation; and
- details of the mechanism and frequency of review of compliance with the treatment plan.

Compliance and Due Diligence Statement,

which in some circumstances may be required, so that managers formally acknowledge their responsibility to comply with risk management policies and procedures. Such statements should refer to relevant performance agreements, and preferably reflect any assertions in the agency's annual report, particularly the Statement of Corporate Compliance.

Monitoring and Audit Documents, which should document:

- details of the mechanism and frequency of review of risks and the risk management process as a whole;
- the outcome of audits and other monitoring procedures; and
- details of how review recommendations are followed up and implemented.

APPENDIX TWO: GLOSSARY OF TERMS

consequence	the outcome of an event or situation expressed qualitatively or quantitatively, being a loss, injury, disadvantage or gain
decision tree	breaks down a series of events into smaller, simpler, more manageable, independent segments
Delphi technique	a group of individuals independently and anonymously estimate the outcome of an uncertain event. The collective results are reported back to the group and the individuals then revise their estimate. This process continues until the collective estimates stabilises
event	an incident, outcome, issue or result that occurs in a certain place during a particular interval of time
event tree analysis	a method for illustrating the sequence of outcomes that may arise after the occurrence of a selected initial event
fault tree analysis	a systems engineering method for representing the logical combinations of various system states and possible causes that lead to a particular outcome, which can contribute to a specified event (called the top event)
frequency	a measure of likelihood expressed as the number of occurrences of an event in a given time (see also likelihood and probability)
hazard	a source of harm or a situation with a potential to cause loss
HAZOP	a Hazard and Operability (HAZOP) study is a structured approach which systematically analyses every part of a process to identify how hazards, operability problems and deviations from design intent may arise
likelihood	used as a synonym for probability and frequency especially in a qualitative context
loss	any negative consequence, financial or otherwise
probability	the likelihood of a specific outcome, measured by the ratio of specific outcomes to the total number of possible outcomes. Probability is expressed as a number between 0 and 1, or between 0% and 100%
residual outcome	the remaining level of risk after all risk treatment measures have been taken
risk	the exposure to the possibility of such things as economic or financial loss or gain, physical damage, injury or delay, as a consequence of pursuing a particular course of action. The concept of risk has two elements: the likelihood of something happening and the consequences if it happens
risk acceptance	an informed decision to accept the likelihood and consequences of a particular risk
risk analysis	a systematic use of available information to determine how often specified events may occur and their likely consequences. The purpose of risk analysis is to identify the causes, effects and magnitude of risk and provide a basis for risk assessment and treatment
risk assessment	the process used to determine risk management priorities by evaluating and comparing the level of risk against agency standards, predetermined target risk levels or other criteria
risk avoidance	not becoming involved in a risk situation either by cutting out a process or activity, or by not entering into a new activity
risk control	the provision of appropriate policies, procedures and standards of protection to avoid or minimise identified risks facing an agency
risk engineering	the application of engineering principles and methods to the risk management process

risk financing	the methods applied to fund risk management and the financial consequences of risk events
risk identification	the process of determining what can happen, why and how
risk level	the level of risk calculated as a function of likelihood and consequence
risk management	the systematic application of management policies, procedures and practices to the tasks of identifying, analysing, assessing, treating, monitoring and communicating risk
risk reduction	a selective application of appropriate techniques and management principles to reduce the likelihood of an occurrence or its consequences or both
risk retention	retaining the responsibility for loss, or financial burden of loss, within the organisation
risk transfer	shifting the responsibility for loss, or the financial burden of loss, to another party through insurance, contract or other means
risk treatment	selection and implementation of appropriate management options for dealing with identified risk
self-insurance	see “risk retention”
sensitivity analysis	examines how the results of a calculation or model vary as individual assumptions are changed
Standard	the Australian/New Zealand Standard for Risk Management
SRM	Subject Risk Matrix
SWOT analysis	provides an assessment of an organisation’s strengths, weaknesses, opportunities and threats to provide a snapshot of the present and a view of what the future may hold
TI 109	Treasurer’s Instruction 109 Risk Management