Golden Shears NZ

World Shearing & Woolhandling Championships 2011

Risk Management Plan

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1. Introduction

1.1. Purpose

The purpose of this risk management plan is to document policies and procedures for identifying and handling uncommon causes of project variation (i.e. risk). Risk should be thought of as the possibility of suffering a negative impact to the project, whether it be decreased quality, increased cost, delayed completion, or project failure.

1.2. Intended Audience

Generally, the intended audience for this document is any persons who may be involved in the staging of the World Shearing & Woolhandling Championship, Masterton NZ.

1.3. Risk Management Approach

The overall risk management approach follows the standard risk management model as shown in the following diagram.

1.3.1. Risk Identification

During risk identification, the sources of risk, potential risk events, and symptoms of risk are identified – refer to Section 3 for details.
1.3.2. Risk Analysis

During risk analysis, the value of opportunities to pursue vs. the threats to avoid, and the opportunities to ignore vs. the threats to accept are assessed – refer to Section 4 for details.

1.3.3. Response Planning

During response planning, risk management and contingency plans are developed – refer to Section 5 for details.

1.3.4. Risk Monitoring and Control

During risk monitoring and control, corrective action plans are developed, implemented, and monitored – see section 6 for details.

1.4. Revision History

<table>
<thead>
<tr>
<th>Revision</th>
<th>Author</th>
<th>Date</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>Mavis Mullins</td>
<td>01/11/2011</td>
<td>Template</td>
</tr>
</tbody>
</table>
2. **Roles and Responsibilities**

The following project roles are described in regards to risk and risk response.

2.1. **Project Manager**

The project manager and the executive team are responsible for approval of the risk management plan (this document), leads and participates in the risk management process, and takes ownership of risk mitigation/contingency planning and execution. The project manager is ultimately responsible for the final decision on risk actions, in coordination with the executive team.

2.2. **Project Teams**

The various sub committees define the project teams. These teams will participate in the risk identification process and discuss risk monitoring and mitigation activities at those sites during the relevant sub committee meetings.

The project teams include:

- Shearing
- Stadium
- Marquee
- Administration
- Media & Promotions
- Finance & Sponsorship

2.3. **Project Stakeholders**

Stakeholders assist in monitoring risk action effectiveness and participate in risk audit, as necessary.
3.  Risk Identification

Risk identification as confirmed by the project teams is a constant process of review and management, review and management.

3.1.  Background

Risk identification and potential sources of risk have been well documented and management plans developed. This World Shearing & Woolhandling Championships brings additional risk challenges.

Pre-defined risk categories provide a structure that helps to ensure that a systematic process is followed to identify and then manage those risks. These categories have been tailored over time, as specific projects demand. After identifying and categorizing the risk event, it is entered into the risk register.

3.2.  Sources

Risk identification is done throughout the life-cycle of a project, although a majority of the risks have been identified early on so proper response planning and monitoring can occur. The following are considered tools and techniques for risk identification:

- Analysis of incidents
- Project team input
- Stakeholder and sponsor input
- Formal risk identification sessions
- Previous lessons learned

3.3.  Documentation

Identified risks are documented and entered into the risk register, which is kept in the administration office and also a copy attached as part of this document. During risk identification, the following information is considered:

- Risk category
- Risk trigger
- Potential outcome
- Raised By
- Date Raised
- Source

The risk trigger is the event that would need to happen in order for the potential outcome to occur. For example, a risk trigger might be that a key person leaves. When the risk trigger occurs, the risk is no longer a risk, but has materialized into an issue.
4. Risk Analysis

Risk analysis assists in ensuring the correct response at the right time occurs.

4.1. Background

After a risk or group of risks has been identified and documented, risk analysis should be performed. During risk analysis, each potential risk event is analyzed for:

- The probability that the risk will occur
- The impact of the risk if it occurs

Risk probabilities are defined in Section 7.2 of the Appendix. Risk impact definitions are defined in Section 7.3 of the Appendix. Impacts can be assessed against project cost, schedule, scope, and/or quality. If the risk event affects more than one dimension and the scores are different, the higher impact definition should be utilized.

Once the appropriate risk impact and probability are selected, the risk score can be determined. The risk probability and impact matrix is shown in section 7.5 of the Appendix. The matrix shows the combination of impact and probability that in turn yield a risk priority (shown by the red, yellow, and green colored shadings).

Risk priority is utilized during response planning and risk monitoring/control (see Sections 5 and 6). It is critical to understand the priority for each risk as it allows the project team to properly understand the relative importance of each risk.

Risk impact analysis can be qualitative or quantitative.

4.1.1. Qualitative Analysis

Qualitative analysis is a quicker and usually more cost-effective way to analysis risks (as opposed to quantitative analysis). Analysis should be performed with the goal of gathering data on:

- The likelihood of the risk occurring (using definitions from Section 7.2)
- The qualitative impact on the project (using definitions from Section 7.3)
- The quality of the risk data being utilized (e.g. how reliable is the data?)

4.1.2. Quantitative Analysis

Quantitative analysis utilizes techniques such as simulation and decision tree analysis to provide data on:

- The impact to cost or schedule for risks
- The probability of meeting project cost and/or schedule targets
- Realistic project targets on cost, schedule, and/or scope

Qualitative analysis should occur prior to conducting quantitative analysis. Not every risk needs to go through quantitative analysis. If quantitative analysis is to be used, then this section should contain information on:
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- Defined criteria for which risks go through quantitative analysis
- Technique(s) to be utilized
- Expected outputs of quantitative analysis

4.2. Documentation

The results of risk analysis should be documented in the risk register. The following information shall be entered in the register:

- Risk impact
- Risk probability
- Risk matrix score – computed by the risk register spreadsheet after impact and probability are entered
- Risk priority – computed by the risk register spreadsheet after impact and probability are entered
- Response measures – descriptive comments about the potential risk impact and its management
5. **Response Planning**

5.1. **Background**

During response planning, strategies and plans are developed to minimize the effects of the risk to a point where the risk can be controlled and managed. Higher priority risks receive more attention during response planning than lower priority risks.

5.2. **Risk Strategies**

There are several methods for responding to risks.

5.2.1. **Avoid**

Risk avoidance involves changing aspects of the overall project management plan to eliminate the threat, isolating project objectives from the risk’s impact, or relaxing the objectives that are in threatened (e.g. extending the schedule or reducing the scope). Risks that are identified early in the project can be avoided by clarifying requirements, obtaining more information, improving communications, or obtaining expertise.

5.2.2. **Transfer**

Risk transference involves shifting the negative impact of a threat (and ownership of the response) to a third party. Risk transference does not eliminate a threat, it simply makes another party responsible for managing it.

5.2.3. **Mitigate**

Risk mitigation involves reducing the probability and/or the impact of risk threat to an acceptable level. Taking early and pro-active action against a risk is often more effective than attempting to repair the damage a realized risk has caused. Developing contingency plans are examples of risk mitigation.

5.2.4. **Accept**

Acceptance is often taken as a risk strategy since it is very difficult to plan responses for every identified risk. Risk acceptance should normally only be taken for low-priority risks (see Section 4.1). Risk acceptance can be passive, where no action is taken at all, or active. The most common active approach to risk acceptance is to develop a cost and/or schedule reserve to accommodate known (or unknown) threats.

5.3. **Documentation**

The results of response planning will be documented in the risk register. The following information shall be entered in the register:

- Response strategy (avoid, transfer, mitigate, or accept)
- Response notes (description of plan) – if a mitigation approach is taken, specific trigger points that require aspects of the contingency plan to be executed should be documented
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- Risk owner
6. Risk Monitoring and Control

6.1. Background

Planned risk responses (see Section 5) should be executed as required, but the project should also be continuously monitored for new and changing risks. During risk monitoring and control the following tasks are performed:

- Identify, analyze, and plan for new risks
- Keep track of identified risks and monitor trigger conditions
- Review project performance information (such as progress/status reports, issues, and corrective actions)
- Re-analyze existing risks to see if the probability, impact, or proper response plan has changed
- Review the execution of risk responses and analyze their effectiveness
- Ensure proper risk management policies and procedures are being utilized

6.2. Timing

Risk monitoring will have several levels of implementation. Project teams will have an on the ground constant monitoring role, project leaders will have a frequent but not constant monitoring role and the project manager will take a more strategic perspective.

6.3. Documentation

The results of risk monitoring and control will be documented in the risk register. The following information shall be entered in the register:

- Status – valid statuses are:
  - Identified – Risk documented, but analysis not performed
  - Analysis Complete – Risk analysis done, but response planning not performed
  - Planning Complete – Response planning complete
  - Triggered – Risk trigger has occurred and threat has been realized
  - Resolved – Realized risk has been contained
  - Retired – Identified risk no longer requires active monitoring (e.g. risk trigger has passed)
- Trigger Date – if the risk has been triggered
- Notes
7. Appendix A: Definitions

7.1. Risk Categories

The following diagram shows pre-defined risk categories. Risk categories should be used in thinking about and identifying risks. Although Golden Shears has used this format, a preferred format has been to use the Project Team structure to identify risk categories (see Section 3 for more details).

![Risk Categories Diagram]

Table 1 – Risk Categories
7.2. Risk Probability Definitions

The following chart shows risk probability definitions. During risk analysis the potential likelihood that a given risk will occur is assessed, and an appropriate risk probability is selected from the chart below (see Section 4 for more details).

<table>
<thead>
<tr>
<th>Probability Category</th>
<th>Probability</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very High</td>
<td>0.90</td>
<td>Risk event expected to occur</td>
</tr>
<tr>
<td>High</td>
<td>0.70</td>
<td>Risk event more likely than not to occur</td>
</tr>
<tr>
<td>Probable</td>
<td>0.50</td>
<td>Risk event may or may not occur</td>
</tr>
<tr>
<td>Low</td>
<td>0.30</td>
<td>Risk event less likely than not to occur</td>
</tr>
<tr>
<td>Very Low</td>
<td>0.10</td>
<td>Risk event not expected to occur</td>
</tr>
</tbody>
</table>

Table 2 – Risk Probability Definitions

7.3. Risk Impact Definitions

The following chart shows risk impact definitions across each of the potentially impacted project areas (cost, schedule, scope, and quality). During risk analysis the potential impact of each risk is analyzed, and an appropriate impact level (0.05, 0.10, 0.20, 0.40, or 0.80) is selected from the chart below (see Section 4 for more details).

<table>
<thead>
<tr>
<th>Project Objective</th>
<th>Very Low 0.05</th>
<th>Low 0.10</th>
<th>Moderate 0.20</th>
<th>High 0.40</th>
<th>Very High 0.80</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>Insignificant cost impact</td>
<td>&lt; 10% cost impact</td>
<td>10-20% cost impact</td>
<td>20-40% cost impact</td>
<td>&gt; 40% cost impact</td>
</tr>
<tr>
<td>Schedule</td>
<td>Insignificant schedule impact</td>
<td>&lt; 5% schedule impact</td>
<td>5-10% schedule impact</td>
<td>10-20% schedule impact</td>
<td>&gt; 20% schedule impact</td>
</tr>
<tr>
<td>Scope</td>
<td>Barely noticeable</td>
<td>Minor areas impacted</td>
<td>Major areas impacted</td>
<td>Changes unacceptable to sponsor</td>
<td>Product becomes effectively useless</td>
</tr>
<tr>
<td>Quality</td>
<td>Barely noticeable</td>
<td>Only very demanding applications impacted</td>
<td>Sponsor must approve quality reduction</td>
<td>Quality reduction unacceptable to sponsor</td>
<td>Product becomes effectively useless</td>
</tr>
</tbody>
</table>

Table 3 – Definition of Risk Impact Scales
7.4. Risk Probability and Impact Matrix

The risk probability and impact matrix shows the combination of risk impact and probability, and is utilized to decide the relative priority of risks. Risks that fall into the red-shaded cells of the matrix are the highest priority, and should receive the majority of risk management resources during response planning and risk monitoring/control. Risks that fall into the yellow-shaded cells of the matrix are the next highest priority, followed by risks that fall into the green-shaded cells.

<table>
<thead>
<tr>
<th>Probability</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.90</td>
<td>0.09</td>
</tr>
<tr>
<td>0.70</td>
<td>0.07</td>
</tr>
<tr>
<td>0.50</td>
<td>0.05</td>
</tr>
<tr>
<td>0.30</td>
<td>0.06</td>
</tr>
<tr>
<td>0.10</td>
<td>0.05</td>
</tr>
</tbody>
</table>

Table 4 – Risk Probability and Impact Matrix