



Risk Management Plan

Prepared for: Sparks California Real Estate

Prepared by: Ricky J. Sparks, Project Risk Manager

July 13, 2021

Proposal number: 123-4567

Version: 1.5

RISK MANAGEMENT**1. INTRODUCTION****2. PURPOSE AND OBJECTIVES**

Risk Management is the systematic process of identifying, analyzing, and responding to project risks. It includes maximizing the probability and consequences of positives events and minimizing the probability and consequences of adverse events to project objectives. A risk management plan defines how a project team will handle risks to achieve that goal.

3. RISK-RELATED DEFINITIONS

There are a number of terms used in risk management that need to be defined to ensure clear communications.

4. RISK

An uncertain event or conditions that, if it occurs, has a positive or negative effect on a project's objectives. Risk is often a measure of the inability to achieve overall project objectives within defined project requirements and constraints and has three components: (1) the probability of occurrence, (2) the impact of risk on the program, and (3) the time horizon during which the consequences will occur if the risk is not mitigated.

5. PROBABILITY OF OCCURRENCE

The following table defines the probability of occurrence.

6. TABLE 1 - RISK PROBABILITY OF OCCURRENCE

PROBABILITY RANGE	NATURAL LANGUAGE EXPRESSION	PROBABILITY VALUE USED FOR CALCULATIONS	NUMERIC SCORE
91% through 99%	"Very likely to occur"	95%	5
61% through 90%	"Probably will occur"	76%	4
41% through 60%	"May occur" about half of the time	51%	3
11% through 40%	"Unlikely" to occur	26%	2
1% through 10%	"Very unlikely" to occur	5%	1

7. RISK IMPACT

The following table defines the risk impact categories and terms. For positive risks, consider the opposite of the impact description. The examples would remain the same except having a positive impact to the project.

8. TABLE 2 - RISK IMPACT

Impact Description	Example *	NATURAL LANGUAGE EXPRESSION	Impact value used for calculations	NUMERIC SCORE
An event that, if it occurred, would cause project failure (inability to achieve minimum acceptable requirements)	schedule adjustment >2 mo cost impact > 40%	Critical	Cost of variance	10
An event that, if it occurred, would cause major cost/ schedule increases. Secondary requirements may not be achieved.	schedule adjustment >1 mo cost impact >20%	Serious	Cost of variance	8

Impact Description	Example *	NATURAL LANGUAGE EXPRESSION	Impact value used for calculations	NUMERIC SCORE
An event that, if it occurred, would cause moderate cost/schedule increases, but important requirements would still be met.	schedule adjustment > 2wks cost impact > 10%	Moderate	Cost of variance	5
An event that, if it occurred, would cause only a small cost/schedule increase. Requirements would still be achieved.	schedule adjustment > 1wk cost impact > 5%	Minor	Cost of variance	3
An event that, if it occurred, would have no effect on the project.	schedule adjustment < 2d cost impact < 5%	Negligible	Cost of variance	1

9. TABLE 2 - RISK IMPACT

The risk score is a value calculated that is the product of probability of occurrence and impact. You use the score to compare risks as part of the risk prioritization process. **Table 3** is the matrix used to develop the risk score. The values range from 1 (very low exposure) to 50 (very high exposure). Although there are no specific break points in the risk exposure ranking, those

risks with an exposure value of less than 20 are generally considered low risks, those risks with an exposure value between 20 and 39 are generally considered moderate risks, and those risks with an exposure value between 40 and 50 are generally considered high risks. The definitions of Low, Moderate, and High are as follows:

1. Low Risk: Has little or no potential for increase in cost, disruption of schedule, or degradation of performance. Actions within the scope of the planned project and normal management attention should result in controlling acceptable risk. No response plans will be made for these risks. The project will monitor for them and manage them as they come up.
2. Moderate Risk: May cause some increase in cost, disruption of schedule, or degradation of performance. Special action and management attention may be required to control acceptable risk. The project will do some response planning for these risks.
3. High Risk: Likely to cause significant increase in cost, disruption of schedule, or degradation of performance. Significant additional action and high priority management attention will be required to control acceptable risk. The project will do in-depth response plans for these risks.

Positive risks can use the same table and descriptions except instead of trying to avoid the risk, we will endeavor to make the risk occur and gain the positive impact.

10. Table 3 – Risk Score

Impact					
Probability	Negligible (1)	Minor (3)	Moderate (5)	Serious (8)	Critical (10)
Very likely to occur (5)	5	15	25	40	50
Probably will occur (4)	4	12	20	32	40
About 50% chance of occurring (3)	3	9	15	24	30
Unlikely (2)	2	6	10	16	20

Probability	Negligible (1)	Minor (3)	Moderate (5)	Serious (8)	Critical (10)
Very unlikely to occur (1)	1	3	5	8	10

11. Organization

This section defines the roles and responsibilities for risk management.

12. Project Management Office/Enterprise Project Management Office

The state of North Dakota's Enterprise Project Management Office (EPMO) has issued a project risk management supplement that this project will use to form the basis of the risk management process. The Information Technology Department's Project Management Office provides support to the project manager and has some additional processes and templates for Software Development projects that will be employed in this project.

13. Roles & Responsibilities

Table 4 – Roles & Responsibilities

Project Manager: The overall coordinator of the Risk Management Program.	<ul style="list-style-type: none"> • Maintaining this Risk Management Plan • Maintaining the Risk Management Data Base and distributing updates • Briefing the team on the status of risks • Tracking efforts to reduce moderate and high risk to acceptable levels • Providing risk management training • Facilitating risk assessments and • Preparing risk briefings, reports, and documents required for Project Reviews
---	---

Table 4 – Roles & Responsibilities

Project Team: Responsible for identifying, monitoring and managing risks	<ul style="list-style-type: none">• Coordinate with SMEs to review and recommend to the Project Manager changes on the overall risk management approach based on lessons learned.• Quarterly, or as directed, participate in the update to project risk assessments made during the previous review period.• Review and recommend any changes to the risk assessments made and the risk mitigation plans proposed.• Report new risks to the Project Manager via e-mail• Ensure that risk is a required topic at each Project Meeting• Accomplish assigned mitigation tasks and report status/completion of mitigation actions to the Project Manager for entry into the database.
Subject Matter Experts (SMEs): Responsible for implementing risk management tasks per this plan	<ul style="list-style-type: none">• Review and recommend to the Project Manager changes on the overall risk management approach based on lessons learned.• Quarterly, or as directed, participate in the update to program risk assessments made during the previous quarter.• Review and recommend any changes to the risk assessments made and the risk mitigation plans proposed.• Report new risks to the Project Manager via e-mail• Accomplish assigned mitigation tasks and report status/completion of mitigation actions to the Project Manager for entry into the database.
End Users	<p>The end users will participate in the project through the SMEs. The End Users may identify risks and should pass the information through the SMEs or Project Team. All risk identification, tasking, and reporting will be handled through the project team member(s) assigned to the End User.</p>

14. Risk Management Structure and Procedures

This section describes the risk management process and provides an overview of the risk management approach.

15. Risk Assessment

Risk Assessment	
Size:	With a budget of 490,000, this project is a medium sized project.
Complexity:	This project involves multiple within the organization, but does not involve any other agency or external organization. The project does work with complex formulas. We rate this medium complexity.
Importance to Business:	This project is determined to be high priority within the agency.
Visibility:	While not directly public facing, delivers very important public information.
Agency History:	Agency seldom does IT projects of this size or complexity.

Skills Levels	
Vendor:	ITD is updating an ITD based app. ITD has already done this with other sections of the app, they are just moving the rest of the app off the mainframe system.
Project Mgr.:	Relying on ITD's internal PM. Agency staff has no formal PM experience.
Agency Project Team:	About 50% of the SMEs have done a similar project

Summary	
Risk Management Effort Decision:	It has been determined that the project will spend a moderate amount of time performing the following risk assessment activities.

16. Identification

What	Owner	Time Estimate
Risk Management Effort Decision:	PM	1-1 hour sessions
	Jose M will document session 1	3-2 hour sessions
	David B will document sessions 2 & 5	1-4 hour sessions
	Kim W will document sessions 3 & 4	16 hours documentation
Delphi Technique: We will query each of the key EA architects to identify risks associated with this project. They will be given a week to respond. After they return all submissions, we will send the total risk list to them for a one-time only review. They will be given an additional week for review/ response.	PM	4 hours Management & documentation 3 hours effort per architect 2 weeks lag
E-mail: At the end of each of the above activities, everyone will be asked to e-mail the PM with any additional opportunities or risks that occur to them after the session.	PM	2 hours

Schedule

Schedule Creation

Timescale

Budget

Personnel

Project Resources

Contractors

Project Management

Change Mgmt.

Process

Project Size and Duration

Expectations

End Users

Customer/Sponsor

Project Vendors

Commitment

Technological

Objectives

Product

Requirments

Environment

Internal

Organization and Management

Development Environment

Design and implementation

External

Politics

17. Qualitative Analysis

What	Owner	Time Estimate
Review: The PM will ask the core team to review the risks to determine if they understand the risks enough to score. The team should notify the PM of any risk they are unsure of and the PM can clarify or get more information from the originator. The team will have 3 days to perform the review.	PM	2 hours to review 2 hours management 3 day lag
Scoring: The project team will determine the impact and probability scores for each risk to calculate the risk score. They will use the tables in Section 2 of this document.	Project Team	2 hours
Threshold 1: Anything with a probability of “very likely” (5) will be considered a fact and managed in the project plan. Threshold 2: Any thing with a risk score of 20 or below will be included on the non-critical risk list.	PM	1 hour
All risks not excluded by the above thresholds will be passed to Quantitative Analysis.	PM	1 hour
Stage Gate: Meet with the Executive Steering Committee to review the key risks and get a go/no-go decision to proceed with planning.	PM	1 hour 2 hours prep

18. Quantitative Analysis

What	Owner	Time Estimate
A moderate risk effort indicates that an Expected Monetary Value (EMV) Analysis will be performed for each of the risk passed onto this phase		
Analyze: The project team and SMEs from the effected divisions will meet to perform a basic EMV for each risk. A decision tree will be developed for a risk as needed.	Project Team SMEs	4 hours

19. Risk Response Planning

What	Owner	Time Estimate
The top risks evaluated in the Quantitative Analysis will be assigned out to the core project team, SMEs, and management if necessary. Each risk owner will be assigned to develop strategies avoid, if possible, or mitigate/ transfer the risk. These responses should be documented in the risk register. Risk owners are given 1 week to complete.	Team SMEs Management (if needed)	4 hours 5 day lag
Stage Gate: Meet with the Executive Steering Committee to review the key risks and get a go/ no-go decision to proceed with planning.	PM	1 hour 2 hours prep

20. Risk Monitoring and Control

What	Owner	Time Estimate
Monitoring: Risk owners are responsible for monitoring their risks and notifying the PM via e-mail when a trigger occurs and that the response plan has been initiated.	Risk Owners	4 hours
New Risk Identification: Any stakeholder can identify additional risks. The stakeholder should notify the project manager of the new risk (or possible risk) via e-mail.	Stakeholders	1 hour
Audits: The PM will be responsible for overseeing risk activities and ensuring the risk register is updated.	PM	2 hours per month
Review: The project team will review the project's risks biweekly (in every other weekly team meeting).	Project Team	1 hour per month
Reporting: Risks will be reported in two ways. 1 st the PM maintain a Risk Log in the project repository. The Risk Log will contain a list of risks that are active on the project, the priority of the risk, the assignment, and a current status. 2 nd the monthly Status report and the quarterly Large Project Oversight report will contain a summary of the Risk Log and any new risks identified and added to the Risk Register.	PM	1 hour per month

21. Risk Register

The project's risk register is located in the project repository at (insert link location here) and covers the following points.

- **Date Identified** – The date the risk was identified.
 - **Status** – Identifies whether the risk is potential, active, or closed.
 - **Risk Description** – A description of the risk.
 - **Risk Probability** – The likelihood that the risk will occur. See the “Evaluating Risk Probability” section of the below for possible values. In this category the descriptive words Low, Moderate, or High will be used.
 - **Risk Impact** – The effect o the project objects if the risk event occurs. See the “Evaluating Risk Impact” section of the table below for possible values. In this category the descriptive words Low, Moderate, or High will be used. Enterprise Project Management Office State of North Dakota Sample Risk Management Plan Page 11 of 12
 - **Risk Score** – Reflects the severity of the risks effect on objectives. The risk score is determined by multiplying the risk probability and risk impact values. The intent is to assign a relative value to the impact on project objectives if the risk in question should occur.
 - **Risk Assignment** – Person(s) responsible for the risk if it should occur.
 - **Agreed Response** – The strategy that is most likely to be effective.
 - **Avoidance** – Risk avoidance entails changing the project plan to eliminate the risk or condition or to protect the project objectives from its impact.
 - **Transference** – Risk transference is seeking to shift the consequence of a risk to a third party together with ownership of the response. Transferring the risk simply gives another party responsibility for its management; it does not eliminate it.
 - **Mitigation** – Risk mitigation seeks to reduce the probability and/or consequences of an adverse risk event to an acceptable threshold. Taking early action to reduce the probability of a risk's occurring or its impact on the project is more effective than trying to repair the consequences after it occurs.
-

- **Acceptance** – This technique indicates that the project team has decided not to change the project plan to deal with a risk or is unable to identify any other suitable response strategy.
- **Risk Response Plan** – Specific actions to enhance opportunities and reduce threats to the project's objectives.

22. Risk Register

Technology Risks

Risks 1 through 9 are Technology Risks. They also deal with issues related to the potential for the system to evolve and function for an acceptable life cycle.

Risk ID	Data Submitted	Status	Risk Event	Risk Probability	Risk Impact	Risk Score	Cost Risk Quantification	Schedule Risk Quantification
12	7/5/2008	Potential	Business / Project Scheduling conflicts	50%	Serious	24	\$30,000	2 weeks
	Risk Owner	Agreed Response		Quantification Comments				
	JG/CF	Mitigation		Cost Basis = 50%, \$60,000 impact schedule basis = 50%, 160 hrs				

Description: There will almost certainly be general conflicts between project needs and normal business cycles of the agency. An example may be a cyclical peak in a given business process converging with a critical timeframe in system development or testing.

Assessment: The project has not yet identified any conflicts of significance. The implementation plan and overall timeline have been developed to minimize these. However, testing and training will continue to require the involvement of various users, so scheduling will become critical in the later stages of each phase. Project management will monitor this issue and work with the business units and the Steering Committee to resolve any conflicts.

Response Plan: Business process schedules and issues will be considered as part of the analysis leading to scheduling of future phases of the project. As specific conflicts arise during the life of the project, the project team will work with the affected business units to try to optimally balance the needs of both.

Lessons Learned: This risk has not been active.
