



Project Risk Assessment Tool v1.0 User Guide

PREPARED BY QUEENSLAND TREASURY CORPORATION

MAY 2015



AUDAX AT FIDELIS
QUEENSLAND
TREASURY
CORPORATION

Executive summary

QTC's Project Risk Assessment Tool (Tool) is designed to assist Queensland local governments with performing a risk assessment on a project. The Tool allows Users to enter general information about the project, then specify project options and input the estimated budget and contingency (if applicable) for each option. Users can then perform a risk assessment on each option. The Tool presents project risks in a:

- high-level report that compares the risk profile of each option
- high-level report that summarises the risks for one project option (Feasibility stage only)
- detailed table that shows the assessment of each risk, and
- graph that shows the risk profile of each option.

The Tool is designed to be used as part of the Pre-feasibility and Feasibility stages of the Project Decision Framework and will assist with:

- assessing the riskiness of different project options
- comparing the risk profiles of different project options
- developing a business case to support an investment decision, and
- informing the decision-making process of whether to proceed with a project.

Table of contents

1	Overview	3
2	Getting started	4
2.1	Using the Tool	4
2.1.1	Step 1: Saving the file to your directory	4
	From QTC Connect	4
	From an email	4
	From a USB	4
2.1.2	Step 2: Open the file	5
2.1.3	Step 3: Enable editing and macros	5
2.1.4	Step 4: Set all calculations to automatic	6
2.2	User functions	6
2.2.1	Worksheet header	6
2.2.2	Legend	6
2.2.3	The index (Pf-Index and F-Index sheets)	7
3	Methodology	8
3.1	Alignment with risk management policies	8
4	Setup – Definitions sheet	9
4.1	Risk assessment dashboard	9
4.2	Example risk categorisation	11
4.3	Example mitigation categories	11
5	Pre-feasibility inputs and risk assessment	12
5.1	General information – Pf-GenInfo sheet	12
5.2	Risk assessment – Pf-RiskAssessment sheet	12
6	Feasibility inputs and risk assessment	15
6.1	General information – F-GenInfo sheet	15
6.2	Risk assessment – F-RiskAssessment sheet	16
7	Outputs	19
7.1	Options comparison and option summary reports	19
7.2	Risk register (Pf-RiskRegister and F-RiskRegister sheets)	20
7.3	Risk profile (Pf-RiskProfile and F-RiskProfile sheets)	20
Appendix A:	Example risk categorisation	22

1 Overview

The Tool is designed to assist Queensland local governments to perform a risk assessment on a project. The Tool creates easy-to-understand reports that enable decision makers to evaluate the risk of different project options. The Tool is designed to be used as part of Queensland Treasury Corporation's Project Decision Framework (PDF).

The Tool is organised into three major sections:

1. Setup (for aligning the Tool with your organisation's risk management policy)
2. Pre-Feasibility (for performing a risk assessment at the Pre-feasibility stage)
3. Feasibility (for performing a risk assessment at the Feasibility stage)

It is important to note that the accuracy of the Tool and its outputs are determined significantly by the accuracy and completeness of the information entered by the User. All input fields are shaded yellow. The Tool has been password protected to ensure the integrity of the Tool is maintained.

The latest version of the Tool and all resources to assist Users with operating it are available on QTC Connect. These can be easily accessed via our website (www.qtc.com.au). Login to QTC Connect and the suite of resources are located under Tools > Project Risk Assessment Tool.

The sections below outline how to operate the Tool. If you require further assistance with using the Tool, please contact your QTC Account Manager.

2 Getting started

The Tool has been developed in Microsoft Excel 2010. We highly recommend that the Tool be used in this version of Excel as limitations have been identified when opening the Tool in previous versions. QTC does not guarantee that the Tool is backwards compatible.

The Tool is around 2MB in size. The Tool has been saved with the extension ‘.xlsb’ which is a more efficient format when working with large files. It helps to reduce the size of the file and improve the speed.

The Tool uses a number of Microsoft Excel settings which may not be set by default on your system. Follow the steps below to start using the Tool, noting that in most cases the Tool will be downloaded from QTC’s website, received via email or on a USB.

2.1 Using the Tool

2.1.1 Step 1: Saving the file to your directory

From QTC Connect

1. Using your internet browser, navigate to www.qtc.com.au and follow the links on the right to login to QTC Connect. If you do not already have a username and password set up for QTC Connect, please discuss this with your Account Manager.
2. Once logged in, select Tools from the top navigation bar.



3. Select Project Risk Assessment Tool from the menu bar on the left.
4. Click on the button to download the Project Risk Assessment Tool
5. Navigate to the desired folder and save.

From an email

To save the Tool from an email, right mouse click on the attached file included in the email and select ‘Save as...’. Then navigate to the desired folder and save.

From a USB

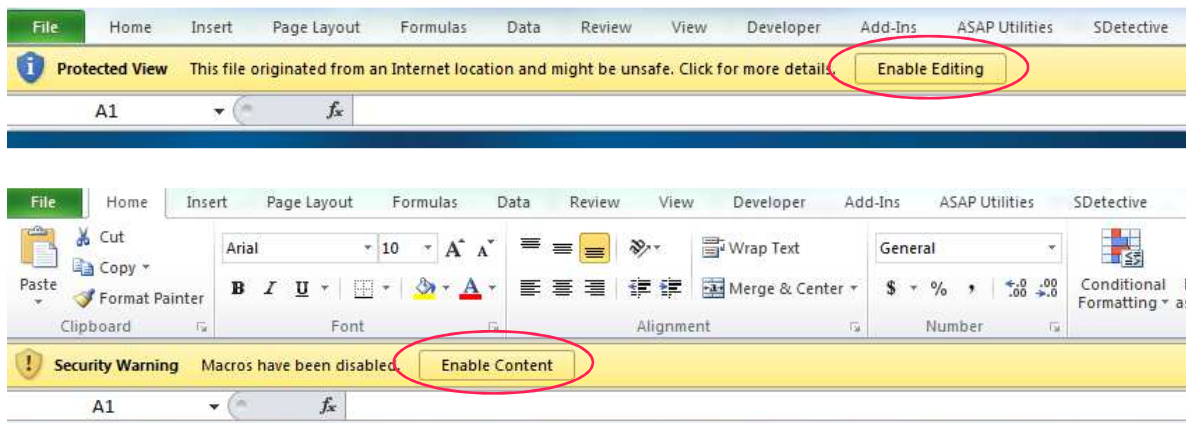
To save the Tool from a USB, open the computer drive that contains the USB (it may be shown as a ‘removable disk’). Right mouse click on the file saved to the USB and select ‘Copy’. Navigate to the desired folder, right mouse click inside the folder and select ‘Paste’.

2.1.2 Step 2: Open the file

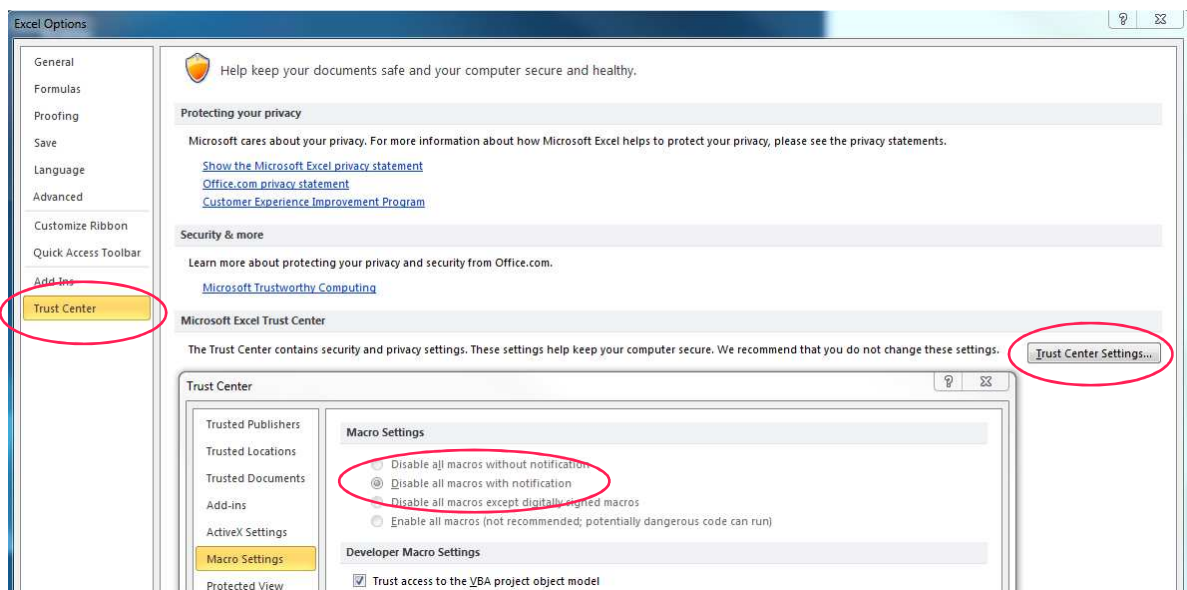
Open windows explorer and find the file in the directory where you saved it. Double click on the file to open it.

2.1.3 Step 3: Enable editing and macros

When you open the file you may see a yellow bar at the top of the screen which includes one of the following notifications: 'This file originated from an Internet location and might be unsafe' or 'Security Warning Macros have been disabled'. In each respective case, simply click on the respective 'Enable Editing' or 'Enable Content' button provided. This will ensure the tool can be used as intended and that macros are enabled.

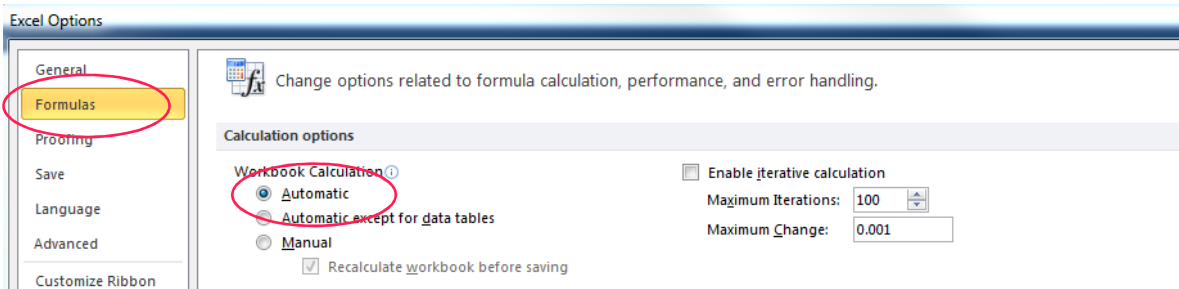


Note: there are different levels of macro security within Microsoft Office products. These instructions assume that macro settings have been set to 'Disable all macros with notification' which is the most common setting. You can view your setting by navigating to File > Options > Trust Centre. Click on 'Trust Centre Settings...' then 'Macro Settings' to view the selection.



2.1.4 Step 4: Set all calculations to automatic

Select File > Options > Formulas > Workbook Calculations and click on 'Automatic' in the workbook calculation section.



2.2 User functions

There is a number of usability features that assist Users to populate inputs correctly and navigate around the Tool.

2.2.1 Worksheet header

The header of some worksheets contains hyperlinks that help the User navigate between the Definitions sheet, Index sheet and Risk Assessment sheets. To go to the desired sheet, simply click the icon.



2.2.2 Legend

A copy of the cell formatting used consistently in the Tool has been reproduced below.

MODEL LEGEND	
xx/xx	Title
xx/xx	Text
xx/xx	Input cell
xx/xx	Input cell not required
xx/xx	Calculation cell
xx/xx	Error check
xx/xx	Perform automated function (ie, run macro)

2.2.3 The index (Pf-Index and F-Index sheets)

The Pf-Index and F-Index sheets provide an overview of the process involved in inputting the correct information and interpreting the reports. Each worksheet lists the tasks required at each stage of the risk assessment and provides a hyperlink to the appropriate worksheet.

INSTRUCTIONS		
STAGE	HYPERLINK TO SHEET	TASK
Inputs	Pf-GenInfo	Identify the project and describe its purpose including the des Name and describe each project option. Describe the type of a

These worksheets are designed to be used as a prompt for experienced users of the Tool. First-time users should follow the process outlined in the following sections of the User Guide.

3 Methodology

In a project context, risk can be defined as anything that may cause the actual project outcome to differ from the expected project outcome. The degree of uncertainty of outcome depends on two factors: the likelihood of the risk occurring and the potential consequences if it did occur. Given the capacity of likelihood and potential consequence to capture uncertainty, the Tool uses these characteristics to assign a 'rating' to each risk.

The Tool uses clear definitions of likelihood and consequence to ensure risks are rated consistently across options and projects. This allows Users to compare the risk profiles of different options within a project. The likelihood of a risk occurring is classified using a probability-based definition, timing-based definition or descriptive definition. The potential consequence if the risk did occur is classified using financial consequences, reputational consequences, environmental consequences or health and safety consequences.

Risks arise from many different sources. For this reason, similar risks are grouped into one of five categories for reporting purposes: technical, economic, commercial, organisational or political (see Appendix A: for example categorisation of specific risks). This allows users to compare different options according to the spread of risk across categories.

Once option risks have been classified, the Tool gives each option a rating based on its highest risk. For example, if an option has three risks (low, moderate and extreme) the option will be given the rating of its highest risk (extreme).

The risk assessment at the Pre-feasibility stage should only include key risks. This is because the risk assessment should form part of an 'Options Analysis', in which a high-level risk assessment should be sufficient. The Feasibility stage risk assessment should include all risks because this will form part of a 'Business Case' that requires a more detailed risk assessment.

Please see the 'Setup – Definitions sheet' section to align the risk Tool with your organisation's risk management methodology before using the Tool to perform a risk assessment.

3.1 Alignment with risk management policies

This Tool is designed exclusively to assist organisations perform effective risk assessments on potential projects. The Tool uses a simple and well-defined framework to classify risks and create easy-to-understand reports that decision-makers will find useful.

This Tool is intended to complement your organisation's risk management policy. At the same time, QTC recognises that it is impossible for this Tool to align perfectly with the myriad of risk management methodologies that are practised. For this reason, the terminology and definitions pre-populated in the Tool should be used as a guide only. Users should align the terminology and definitions used in the Tool with their own organisation's risk management policy (where possible).

4 Setup – Definitions sheet

4.1 Risk assessment dashboard

Before the Tool can be used, it must be configured to align with your Council’s risk management definitions and methodology using the steps shown below. All of the cells shaded yellow can be adjusted and should be modified to fit within your organisation’s risk management strategy.

Step 1: Define consequence terminology and classifications

The potential consequences of each risk have been set by default to range from insignificant to catastrophic. However, the Tool will allow the User to redefine the consequence classifications and definitions to align with your Council’s risk management policy.

STEP 1: Define consequence terminology and classifications	
Risk range	Consequence classification
Most severe	Catastrophic
	Major
	Moderate
	Minor
Least severe	Insignificant

Financial consequence	Reputational consequence
Financial impact of more than 70% of project value	Damage to reputation is beyond repair
Financial impact of no more than 70% of project value	Substantial long-term damage to reputation
Financial impact of no more than 30% of project value	Substantial short to medium term damage to reputation
Financial impact of no more than 10% of project value	Some short term damage to reputation
Financial impact of no more than 1% of project value	Minor short term damage to reputation

Environmental consequence	Health and safety consequence
Catastrophic environmental harm	Multiple employee/community deaths
Major long-term environmental harm	Extensive injuries
Moderate environmental harm	Medical treatment required
Minimal long-term environmental harm	First aid required
No environmental harm	No injuries

Step 2: Define likelihood terminology and classifications

The likelihood of each risk has been set by default to range from rare to almost certain. However, the Tool will allow the User to redefine likelihood terminology and classifications to align with your Council’s risk management policy.

STEP 2: Define likelihood terminology and classifications	
Risk range	Likelihood classification
Most likely	Almost certain
	Likely
	Possible
	Unlikely
Least likely	Rare

Probability-based definition	Timing-based definition
More than 70% chance of occurring	Is likely to occur more than once every year
No more than 70% chance of occurring	Is likely to occur once every year
No more than 30% chance of occurring	Is likely to occur once every 5 years
No more than 10% chance of occurring	Is likely to occur once every 10 years
No more than 1% chance of occurring	Is unlikely to occur once in 10 years
Descriptive definition	
Is expected to occur in all circumstances	
Will probably occur in most circumstances	
Might probably occur at some time	
Will probably not occur at any time	
May occur only in exceptional circumstances	

Step 3: Define rating terminology

The rating terminology has been set by default to range from extreme to low. However, the Tool will allow the User to redefine rating terminology to align with your Council's risk management policy. Ensure the first three letters of each rating are unique to the other ratings (eg, ABC is different to ACB, but ABC and ABCD are the same). Otherwise the reports will not be able to differentiate between different ratings.

STEP 3: Define rating terminology	
Risk range	Rating classification
Highest risk	Extreme
	High
	Moderate
Lowest risk	Low

Step 4: Define rating classification

The Tool assigns each risk a 'rating' based on the likelihood of occurrence and potential consequences. The User must use the drop-down boxes in the matrix to determine what rating will be assigned to each risk based on its consequence and likelihood.

STEP 4: Determine rating classification					
Consequence classification	Likelihood classification				
	Almost certain	Likely	Possible	Unlikely	Rare
Catastrophic	<i>Extreme</i>	<i>Extreme</i>	<i>High</i>	<i>High</i>	<i>Moderate</i>
Major	<i>Extreme</i>	<i>High</i>	<i>High</i>	<i>Moderate</i>	<i>Moderate</i>
Moderate	<i>High</i>	<i>High</i>	<i>Moderate</i>	<i>Moderate</i>	<i>Low</i>
Minor	<i>High</i>	<i>Moderate</i>	<i>Moderate</i>	<i>Low</i>	<i>Low</i>
Insignificant	<i>Moderate</i>	<i>Moderate</i>	<i>Low</i>	<i>Low</i>	<i>Low</i>

4.2 Example risk categorisation

The Tool groups similar risks into one of five categories for reporting purposes: technical, economic, commercial, organisational or political. A guide to assist users to classify risks into one of the categories has been included under the ‘Example risk categorisation’ section of the Definitions worksheet. These cells are shaded yellow and can be edited as required. Users can categorise risks in accordance with their Council’s risk management policy, by adding or reclassifying risks where required.

EXAMPLE RISK CATEGORISATION			
Category	Underlying risk	Low risk	Extreme risk
Technical	Project location	Standard	New frontier
	Climate	Temperate	Remote desert
	Location	Level/open	Mountainous
	Scope definition	Well defined	Poorly defined
	Existing infrastructure	Reliable	Non-existent
	Project complexity	Simple	Complex
	Technology	Conventional	New/unproven
	Safety	Safe	Dangerous
Economic	Schedule	Realistic	Unrealistic
	Inflation	Favourable	Unfavourable
	Currency	Single major	Multiple

4.3 Example mitigation categories

Mitigation strategies can be grouped into one of four categories: preventing the risk; transferring the risk to another party; mitigating the consequences of the risk; or accepting the risk when there is no other alternative. A description of each category is included on the Definitions worksheet. These definitions will be important when performing a risk assessment and classifying the mitigation strategy assigned to each risk.

EXAMPLE MITIGATION CATEGORIES	
Strategy	Description
Risk prevention	Adopting measures to eliminate the source of risk or substantially reduce the likelihood of loss from their occurrence.
Risk transfer	Shifting the risk to another party who bears the consequences if the risk eventuates.
Impact mitigation	Adopting measures to minimise the consequence of the risk.
Risk acceptance	Occurs when risks cannot be avoided or transferred, or the cost of doing so is prohibitive. Risk mitigation measures sho

These classifications are reported in the Pf-RiskRegister and F-RiskRegister sheets and will help decision-makers assess whether the mitigation strategy applied to each risk is appropriate.

5 Pre-feasibility inputs and risk assessment

5.1 General information – Pf-GenInfo sheet

Step 1: Input general project information

Enter general information about the project including its name, any identification numbers and important contacts. Input the project purpose and any comments relating how the risk assessment was conducted (eg, by conducting a risk workshop).

STEP 1: Input general project information	
Project name	Water Treatment Plant
Reference	
Project stage	Pre-feasibility
Primary contact	Aaron Walker
Business Unit	Engineering services
Project Sponsor	Bill Jenkins
Project purpose (incl. desired outcome)	This project is addressing the need to improve water treatment services the Council provides to the community. Council intends to continue to provide services to consumers. This is a Net Present Value project, but non-financial issues must also be considered.
General comments	The existing water treatment plant will not be able to cope with demand increases attributable to population growth over the next five years. Action can service the community's requirements for water and waste water services.

Step 2: Input project options

Enter specific information about each option including the option name and include a short description.

STEP 2: Input project options		
Option number	Name	Description
Option 1	Status quo	This is the 'do nothing' scenario
Option 2	New building	Build a new building

Step 3: Input option budget

Enter the estimated budget of each option.

STEP 3: Input option budget	
Estimated budget	
\$	100,000

Step 3: Determine option contingency

Assign a contingency for each option. The Tool allows Users to enter a contingency for each individual risk. The 'Contingency based on risk assessment' column automatically calculates the sum of all the contingencies for risks that apply to that option (based on the User's risk assessment). The User can also enter an override value which will be used as the contingency applied for reporting purposes.

STEP 4: Determine option contingency			
Contingency based on risk assessment	Contingency override	Contingency applied	
\$ 2,014		\$	2,014
\$ 2,022	\$ 2,500	\$	2,500

5.2 Risk assessment – Pf-RiskAssessment sheet

Conduct a risk assessment of each option using the steps below.

Step 1: Identify key risks

Identify key risks. Describe how these risks are caused, their likelihood and possible effects. Categorise each risk as appropriate (a guide to how risks may be categorised had been placed on the 'Definitions' worksheet).

STEP 1: Identify key risks		
Risk	Description of cause, likelihood and effects	Category
Site conditions	Unanticipated adverse ground conditions are discovered. Would potentially cause additional construction cost and/or time, though similar construction has been undertaken successfully nearby without this issue.	Technical
Contractor failure	Contractor may fail financially or fail to continue to provide services to the required specification.	Commercial

Step 2: Determine mitigation strategies

Determine an appropriate mitigation strategy. Describe how this strategy will work and classify it accordingly. Although the selected strategies may fall into more than one category, just select the one approach will be more important in minimising the risk.

STEP 2: Determine mitigation strategies	
Mitigation strategy	Description of mitigation strategy
Risk transfer	Allocate the risk to the construction company as it is best placed to manage it (e.g. through expert testing and due diligence assessments).
Impact mitigation	Organisation to carry out due diligence on contractors regarding probity and financial capacity. Contingency plans to be put in place for alternative delivery of services.

Step 3: Determine risk rating

Determine the likelihood of the risk occurring and the consequences if it did occur based on the definitions outlined earlier. The Tool will automatically calculate the risk rating based on the configuration of the rating classification table (see Step 4 of the Definitions worksheet).

STEP 3: Determine risk rating		
Likelihood	Consequence	Rating
Unlikely	Catastrophic	High
Possible	Moderate	Moderate

Step 4: Assign contingency

If applicable, assign an appropriate contingency to each risk.

Step 4: Assign contingency	
Contingency	
\$	2,000

Step 5: Identify the option(s) this risk will apply to

Select which option(s) each risk will apply to using the drop-down boxes.

STEP 5: Identify the option(s) this risk will apply to							
Status quo	New building	Bigger building	Biggest building	Augment current site	Re-open old site	Demand management	Discontinue service
Yes	Yes	Yes	Yes	Yes		Yes	
		Yes	Yes	Yes			

Error checks

Check that information has been entered correctly. A simple error check has been included in the Tool to help Users accurately capture information in the risk reports. This cell checks whether the likelihood and consequence classification of each risk matches the terminology on the Definitions sheet (Step 3 Pf-RiskAssessment sheet) and whether the rating classification has been entered correctly (Step 4 Definitions sheet).

Error checks
ERROR: Check likelihood and consequence classifications in STEP 3 or STEP 4 on Definitions sheet

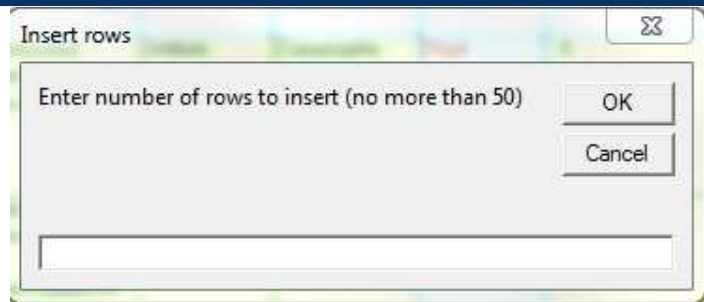
Adding new rows

The Tool is set up with plenty of rows in the risk assessment table. If needed, you can add more rows to the risk assessment table by clicking the insert rows button at the top of the page. The button adds new rows into the *second last* row on the risk assessment table.

Keep in mind that adding new rows will require the Tool to perform more calculations, making it bigger in size and slower to run. It is best to only add new rows when they are needed. Importantly, there is no mechanism to delete rows once inserted.



Once the insert rows button is clicked, a small message box will appear. Enter the number of rows you would like to insert into the Tool (only a maximum of 50 is allowed at a time) and click 'OK'. If you have accidentally clicked the 'insert rows' button, simply click 'Cancel'.



6 Feasibility inputs and risk assessment

6.1 General information – F-GenInfo sheet

Step 1: Input general project information

Confirm general information about the project including its name, an identification numbers and important contacts. The project purpose cell shows what was entered in the Pre-feasibility stage.

STEP 1: Input general project information			
	Pre-feasibility details	Business Case details	Details shown in reports
Project name	Water Treatment Plant		Water Treatment Plant
Reference			
Project Phase	Feasibility		Feasibility
Primary contact	Aaron Walker		Aaron Walker
Business Unit	Engineering services		Engineering services
Project Sponsor	Bill Jenkins		Bill Jenkins
Project purpose (incl. desired outcome)	This project is addressing the need to improve water treatment services the Council provides to the community. Council intends to continue to provide good quality water services at a low cost to consumers. This is a Net Present Value project, but non-financial issues must also be considered.		
General comments	The existing water treatment plant will not be able to cope with demand increases attributable to population growth over the next five years. Action must be taken to ensure the Council can service the community's requirements for water and waste water services.		

Step 2: Input project options

Select the options approved for assessment at the Feasibility stage using the drop-down boxes. The options description cells show what was entered in the Pre-feasibility stage.

STEP 2: Select project options		
Option number	Name	Description
Option 1	Status quo	This is the 'do nothing' scenario
Option 2	Re-open old site	Re-open an old site that is currently unused

Step3: Determine option budget

Review the estimated budget for each option and adjust as necessary. The budget entered at the Pre-feasibility stage is shown, but this may need to be adjusted if the estimated budget has changed by entering an updated budget in the Feasibility budget column. If the budget is updated, this will be reflected in the Budget applied column and will be shown in the risk reports.

STEP 3: Determine option budget			
	Pre-feasibility budget	Feasibility budget	Budget applied
	\$ 100,000		\$ 100,000
	\$ 20,000		\$ 20,000
STEP 3: Determine option budget			
	Pre-feasibility budget	Feasibility budget	Budget applied
	\$ 100,000	\$ 120,000	\$ 120,000
	\$ 20,000		\$ 20,000

Step 4: Determine option contingency

Assign a contingency for each option. The Tool allows users to enter a contingency for each individual risk. The 'Contingency based on risk assessment' column automatically calculates the sum of all the contingencies for risks that apply to that option (based on the User's risk assessment). The User can also enter an override value which will be used as the applied contingency.

STEP 4: Determine option contingency			
Contingency based on risk assessment	Contingency override	Contingency applied	
\$ 2,014		\$ 2,014	
\$ 2,022	\$ 2,500	\$ 2,500	

Step 5: Import the risk assessment data from the Pre-Feasibility stage

Once the correct options have been selected, import the risk assessment data entered at the Pre-feasibility stage using the button at the top of the page. In this way, the risk assessment completed at the Feasibility stage can build upon the assessment at the Pre-feasibility stage.

STEP 5: Import risk assessment data from Pre-Feasibility stage

Import data from Pre-feasibility risk assessment

6.2 Risk assessment – F-RiskAssessment sheet

Conduct a risk assessment of each option using the five steps below.

Step 1: Identify all risks

Identify all risks. Describe how these risks are caused, their likelihood and possible affects. Categorise each risk as appropriate (a guide to how risks may be categorised had been placed on the 'Definitions' worksheet).

STEP 1: Identify all risks		
Risk	Description of cause, likelihood and effects	Category
Site conditions	Unanticipated adverse ground conditions are discovered. Would potentially cause additional construction cost and/or time, though similar construction has been undertaken successfully nearby without this issue.	Technical
Contractor failure	Contractor may fail financially or fail to continue to provide services to the required specification. Failure may result in disruption to government services. High likelihood, as no contractor has had any previous experience in providing construction services.	Commercial

Step 2: Determine mitigation strategies

Determine an appropriate mitigation strategy. Describe how this strategy will work and classify it appropriately (a guide to how mitigation strategies may be categorised had been placed on the 'Definitions' worksheet). Although the selected strategies may fall into more than one category, just select the one approach will be more important in minimising the risk.

STEP 2: Determine mitigation strategies	
Mitigation strategy	Description of mitigation strategy
Risk transfer	Allocate the risk to the construction company as it is best placed to manage it (e.g. through expert testing and due diligence assessments).
Impact mitigation	Organisation to carry out due diligence on contractors regarding probity and financial capacity. Contingency plans to be put in place for alternative delivery of services.

Step 3: Determine risk rating

Determine the likelihood of the risk occurring and the consequences if it did occur based on the definitions outlined earlier. The Tool will automatically calculate the risk rating based on the configuration of the rating classification table (see Step 4 of the Definitions worksheet).

STEP 3: Determine risk rating		
Likelihood	Consequence	Rating
Unlikely	Catastrophic	High
Possible	Moderate	Moderate

Step 4: Assign contingency

If applicable, assign an appropriate contingency to each risk.

Step 4: Assign contingency	
Contingency	
\$	2,000
\$	4,500

Step 5: Identify the option(s) this risk will apply to

Select which option(s) each risk will apply to using the drop-down boxes.

STEP 5: Identify the option(s) this risk will apply to			
Status quo	Re-open old site	Bigger building	Discontinue service
Yes		Yes	
		Yes	

Error checks

Check that information has been entered correctly. A simple error check has been included in the Tool to help Users accurately capture information in the risk reports. This cell checks whether the likelihood and consequence classification of each risk matches the terminology on the Definitions sheet (Step 3 F-RiskAssessment sheet) and whether the rating classification has been entered correctly (Step 4 Definitions sheet).

Error checks
ERROR: Check likelihood and consequence classifications in STEP 3 or STEP 4 on Definitions sheet

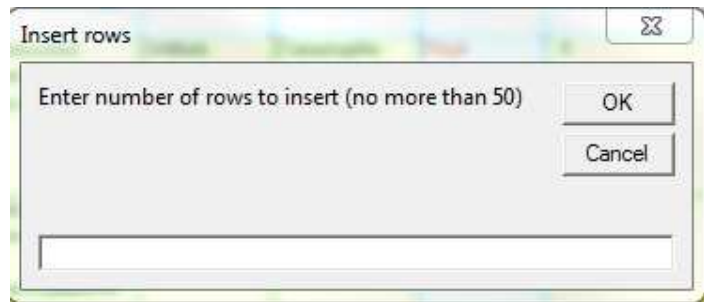
Adding new rows

The Tool is set up with plenty of rows in the risk assessment table. If needed, you can add more rows to the risk assessment table by clicking the insert rows button at the top of the page. The button adds new rows into the *second last* row on the risk assessment table.

Keep in mind that adding new rows will require the Tool to perform more calculations, making it bigger in size and slower to run. It is best to only add new rows when they are needed. Importantly, there is no mechanism to delete rows once inserted.



Once the insert rows button is clicked, a small message box will appear. Enter the number of rows you would like to insert into the Tool (only a maximum of 50 is allowed at a time) and click 'OK'. If you have accidentally clicked the 'insert rows' button, simply click 'Cancel'.



7 Outputs

The Tool presents three risk reports for the Pre-feasibility assessment and four risk reports for the Feasibility assessment. Each report is described below.

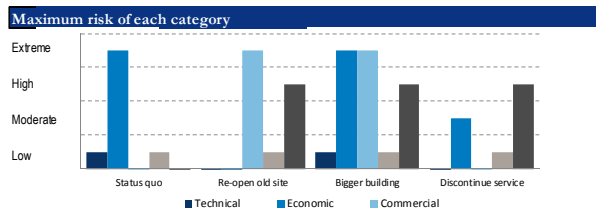
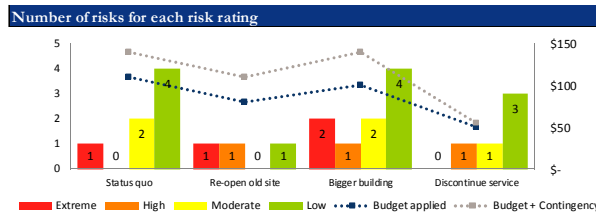
7.1 Options comparison and option summary reports

Option Comparison (Pf-OptionComparison and F-OptionComparison sheets)

This report shows general project information, the number of risks by rating, the maximum risk for each category and the biggest risks for each option. It is designed for comparing the risk profile of different options.

Water Treatment Plant option risk comparison report

General Information			
Primary Contact	Aaron Walker	Sponsor	Bill Jenkins
Business unit	Engineering services	Current phase	Feasibility
Project purpose			
This project is addressing the need to improve water treatment services the Council provides to the community. Council intends to continue to provide good quality water supply at low cost to consumers. This is a Net Present Cost project so non-financial issues must also be considered.			
Comments			
The existing water treatment plant will not be able to cope with demand increases attributable to population growth over the next five years. Action must be taken to ensure the Council can service the community's requirements for water and waste water services.			



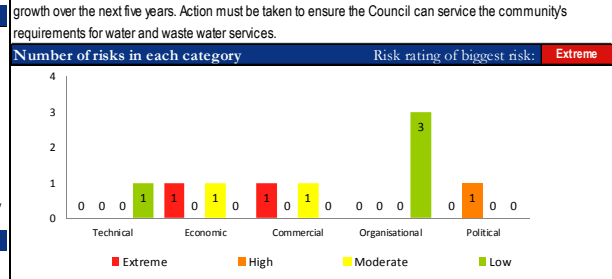
Biggest risks for each option			
Status quo	Re-open old site	Bigger building	Discontinue service
Ext Foreign exchange	Ext Contractor issues	Ext Contractor issues	Hig Reputation
Mod Interest rates	Hig Reputation	Ext Foreign exchange	Mod Interest rates
Mod Liquidity	Low Team	Hig Reputation	Low Team
Low Team		Mod Interest rates	Low Team skills
Low Team skills		Mod Contractor failure	Low Team spirit
Low Team spirit		Low Team	
Low Site conditions		Low Team skills	
		Low Employee turnover	
		Low Site conditions	

Option Summary—Feasibility stage only (F-Summary sheet)

This report shows information for a single option, which can be selected using the drop down box. The report shows general project information, the number of risks in each category and the biggest risks for that option.

Water Treatment Plant risk summary report

General Information			
Option name	Bigger building	Primary Contact	Aaron Walker
Option number	Option 5	Business unit	Engineering services
Current phase	Feasibility	Sponsor	Bill Jenkins
Project Budget	\$100,000.00	Project Contingency	\$10,000.00 10% of budget
Project purpose			
This project is addressing the need to improve water treatment services the Council provides to the community. Council intends to continue to provide good quality water supply at low cost to consumers. This is a Net Present Value project, but non-financial issues must also be considered.			
Comments			
The existing water treatment plant will not be able to cope with demand increases attributable to population growth over the next five years. Action must be taken to ensure the Council can service the community's requirements for water and waste water services.			



Biggest risks for this option			
Risk	Description	Mitigation strategy	Contingency
Ext Contractor issues	Description of cause, likelihood and effects	Details of mitigation strategy	\$ 2,575.60
Ext Cost inflation	Description of cause, likelihood and effects	Details of mitigation strategy	\$ 185.82
Ext Reputation	Description of cause, likelihood and effects	Details of mitigation strategy	\$ 5,841.62
Ext Interest rates	Description of cause, likelihood and effects	Details of mitigation strategy	\$ 4,703.35
Mod Contractor failure	Description of cause, likelihood and effects	Details of mitigation strategy	\$ -
Low Team	Description of cause, likelihood and effects	Details of mitigation strategy	\$ 5,976.07
Low Team skills	Description of cause, likelihood and effects	Details of mitigation strategy	\$ 4,513.51

7.2 Risk register (Pf-RiskRegister and F-RiskRegister sheets)

The Risk Register presents the risk information for one option in a table (this is the risk register for that option). This is useful for filtering the risks by category and rating. When a new risk is added to either the Pf-RiskAssessment or F-RiskAssessment sheet the 'refresh chart' button at the top of the page must be pressed in order to refresh the respective table and show the new risk.

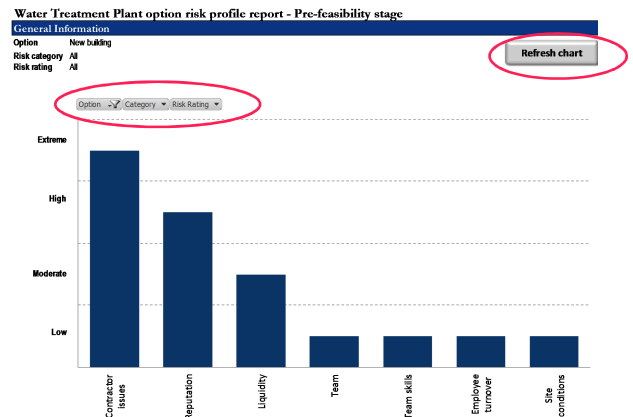
Water treatment plant Risk Register - Feasibility stage



7.3 Risk profile (Pf-RiskProfile and F-RiskProfile sheets)

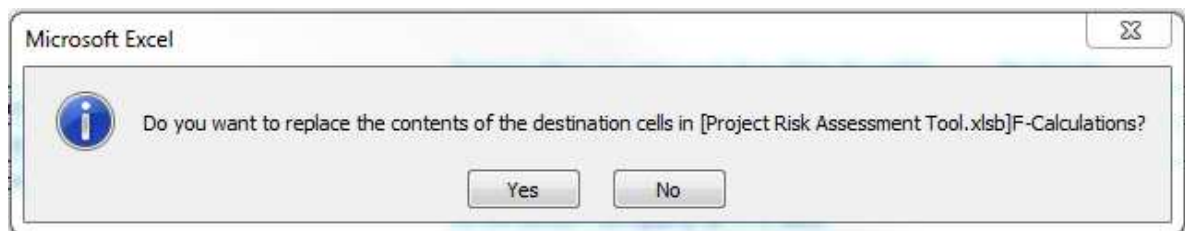
This report shows the risk profile for a single option. This report lists the name and the rating of every risk for that option. The report can be filtered to show risks that are classified with a certain rating or category using the grey icons above the chart.

When a new risk is added to either the Pf-RiskAssessment or F-RiskAssessment sheet the 'refresh chart' button at the top of the page must be pressed in order to refresh the respective graph and show the new risk.



Note: Updating pivot tables

When the 'refresh table' button is selected to update the pivot tables in the reports above, a message box similar to this one may appear:



If this occurs, simply click 'yes' button on the message to update the pivot table. Clicking 'no' will prevent the pivot table from updating.

Disclaimer

Queensland Treasury Corporation (QTC) has prepared the Project Risk Assessment Tool (Tool) for use solely by Queensland local governments (the User) to assist in the consolidation, presentation and analysis of key risk metrics associated with projects as they progress through each of the Project Decision Framework stages. The Tool should not be used for any other purpose.

As use of the Tool is intended for Queensland local governments only, it should not to be provided or disclosed to, nor relied upon by, any other party without QTC's express written consent.

The accuracy of the Tool and its outputs is significantly determined by the accuracy, currency, completeness and applicability of the information entered by the User. It is also determined by the User's understanding of the Tool's underlying methodology and its appropriateness to the User's business. QTC is not in a position to review and verify the suitability of the Tool or its inputs to specific situations being examined by the User and, therefore, QTC accepts no responsibility for the incorrect application of the Tool by the User or the entry of incorrect information into the Tool.

The outputs of the Tool should be used as a guide only. Specific advice should be obtained before acting on the basis of any output of the Tool.

Neither QTC nor any of its employees or agents accepts any liability for any loss or damage suffered by any person as a result of that person or any other person placing any reliance on, or acting on the basis of, the contents of the Tool or the financial statements and reports generated by the Tool. To the extent permitted by law, QTC expressly excludes any representation or warranty in relation to the accuracy, currency and completeness of the Tool. To the extent permitted by law, by using the Tool you agree that any QTC liability in connection with the Tool will be limited to the amount of fees received by QTC in relation to the Tool.

QTC does not provide legal, tax or accounting advice. Such advice should be sought from an independent expert practitioner before applying the information contained in the Tool.

© Queensland Treasury Corporation

Appendix A: Example risk categorisation

In Table 1 below, different types of risk have been categorised into one of the five categories: technical, economic, commercial, organisational and political. This is not intended to be an exhaustive or definitive list. Instead, these are just examples of the types of risk that may be classified into one of these categories. This table is also shown on the Definitions sheet in the Tool.

TABLE 1: EXAMPLE RISK CATEGORISATION

Category	Underlying risk	Low risk	Extreme risk
Technical	Project location	Standard	New frontier
	Climate	Temperate	Remote desert
	Location	Level/open	Mountainous
	Scope definition	Well defined	Poorly defined
	Existing infrastructure	Reliable	Non-existent
	Project complexity	Simple	Complex
	Technology	Conventional	New/unproven
	Safety	Safe	Dangerous
Economic	Schedule	Realistic	Unrealistic
	Inflation	Favourable	Unfavourable
	Currency	Single major	Multiple
Commercial	Operations	Group	JV/inexperience
	Contract strategy	Optimum	Undefined
	Contractor competition	Multiple bidders	Single source
	Contractual interfaces	Single contractor	Many contractors
	Risk ownership	Clear and appropriate	Unclear and inappropriate
	Local content requirement	None	High
Organisational	Cross business	Single business units	Multiple business units
	No. of locations	Single	Multi
	Project team competence	Good	Poor
Political	Government involvement	Passive	Active
	JV involvement	Passive	Active
	Environmental issues	None	Major
	Community issues	None	Many
	Industrial relations	Good	Poor
	Reputational issues	Standard	High profile