

## 7.0 7.0 RISK MANAGEMENT

### 7.1 Introduction

Risk management is an important element in the development and management of assets. For asset management planning to be robust it must be integrated with other corporate risk management processes and that this encompasses strategies for Council's most critical assets, provide for the effects of asset failure and be integrated with disaster recovery plans and business continuity plans. Currently asset management planning is listed as a Top 50 Risk in the Council Risk Register.

#### 7.1.1 BACKGROUND

Council has reviewed and adopted in 1999 a Risk Management Charter. In 2013 Council's Audit & Risk Committee reviewed and adopted a revised Risk Management Charter. Council determined its overall policy would be to continually develop a Risk Management System that reflects best practice. Key objectives are:

- "to provide a logical and systematic method for identifying and managing risk within the organisation that will assist the organisation to meet its goals and objectives efficiently and effectively. This achieved by aligning key organisational objectives, risks and mitigating controls,
- to minimise losses and maximise opportunities – Risk Management is an much about defining opportunities as avoiding and mitigating losses
- to improve the decision-making capabilities of staff recognising that the greatest knowledge and capacity for management of risks often rests with those"

Overarching strategies for managing risk within Council are:

- Council's Chief Executive Officer will establish and implement a Risk Management system that is relevant to the organisation and which reflects the provisions of Council's Charter. The overarching objective of that Risk Management system will be to identify, and where feasible, mitigate risk factors that might prevent Council achieving its objectives. Risk Management systems established within Council will reflect prevailing best practice including relevant industry standards – especially AS/NZS Risk Management Standard 4360 and AS/NZS ISO 31000.
- The ongoing effectiveness of Councils Risk Management systems and compliance with them by employees will be demonstrated by appropriate reporting to Council and its appropriate Committees. Currently this is achieved by programed reporting to Council's Audit & Risk Committee who meet 3-4 times per annum.

#### 7.1.1.2 Current Risk Management Status

Council has an Audit & Risk Committee which oversees the governance of a Risk Management Programme within the Taupō District Council. Risk Management is continuously being integrated into Councils culture, philosophy, practices, activities and plans rather than being viewed or practised as a separate programme.

The accountability for the management of risk is not removed from the specific activity managers and the Senior Leadership Group or those responsible for the management of assets and this is viewed as a collaborative process between governance and management.

The high level assessment of critical assets is done and now needs to be coordinated with the other assets to determine true criticality, this work is an improvement task is ongoing.

Waikato Regional Council audits the compliance with consent conditions annually, which may affect the environment. The non-compliance with any of the conditions are either modified by WRC and or capital / operational improvement activity is planned to meet those conditions, if they are achievable cost efficiently. These processes have identified components within the TDC Solid Waste network that may be vulnerable to seismic, flood or volcanic events and the impact of failure of these assets. The critical assets include the Landfill and all district Transfer stations.

TDC is also a member of the Waikato Utility Lifelines group and the wider Waikato Civil Defence and Emergency Management Group.

The Broadlands Rd operational contract includes an after-hours emergency response for site issues. After hours staff (the Tauranga call centre) receives calls and forward emergency calls directly to the contractor who are required to respond in a certain time.

Asset managers are also informed of emergency calls

**3 TDC Risk Management Framework**  
 GREAT LAKE TAUPŌ  
 Taupō District Council  
**Risk Assessment Criteria**

		Low Criticality		Moderate Criticality		High Criticality	
				Consequence		Major	Extreme
		Alleviate Not Requiring Medical Treatment	Minor injury	1 Serious Injury Causing Hospitalisation or Multiple Minor Injuries	1 Life Threatening Injury or Multiple Serious Injuries Causing Hospitalisation	1 Death or Multiple Life Threatening Injuries	
		Self-improvement review required	Scrutiny required by internal committees or internal audit to prevent escalation	Scrutiny required by external committees or the OAG	Intense public, political and media scrutiny evidenced by front page headlines and/or television coverage	Royal Commissions/Parliamentary Inquiries	
		1% of Budget	2-4% of Budget	> 4% of Budget	> 10% of Budget	> 25% of Budget	
		Very little consequence to achievement of plan	Would require some adjustment to achieve plan	Would require significant adjustment to achieve plan	Would threaten achievement of objectives	Would also achievement of strategic plan	
		1	2	3	4	5	
		Insignificant	Minor	Moderate	Major	Catastrophic	
Likelihood	A Almost Certain	L	M	H	E	E	
	B Likely	L	M	H	H	E	
	C Possible	L	M	M	H	H	
	D Unlikely	L	L	M	M	H	
	E Rare	L	L	L	M	M	

Extreme	Disacceptable	Must be given immediate senior management attention.	Detailed Action Plan	SLG responsibility
High	Active Management	Must have considerable management to reduce to as low as reasonably practicable (ALARP)	Detailed Action Plan	Activity managers
Moderate	Tolerable	Risks should be managed and monitored to reduce to as low as reasonably practicable (ALARP)	Specific procedures to manage and monitor	
Low	No Action Required	Manage and monitor with normal operational management practices	Manage by routine procedures	

\*Risks are recorded in and monitored using Promapp Risk Module the ratings recorded above are used to calculate the inherent and residual risk scores

## 7.2 Risk Management Process

The risk management process is an integral part of good management practice. It is an iterative process of continuous improvement that is embedded into existing practices or business improvement.

The main elements of the risk management process to be used at the Taupō District Council are as follows and reflect the risk management standards ISO 31000.2009 and AS/NZS 4360:2004.

### **a) Communicate and consult**

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

### **b) Establish the context**

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

### **c) Identify risks**

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

### **d) Analyse risks**

Identify and evaluate existing controls. Determine consequences and likelihood and hence the level of risk. This analysis should consider the range of potential consequences and how these could occur.

### **e) Evaluate risks**

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

### **f) Treat risks**

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

### **g) Monitor and review**

It is necessary to monitor the effectiveness of all steps of the risk management process. This is important for continuous improvement. Risks and the effectiveness of treatment measures need to be monitored to ensure changing circumstances do not alter priorities. Council staff are involved in a continuous program of risk assessment at district facilities due to the high level of public interface.

## 7.3 Council Funding for Risk

Council looks to provide funding for disaster recovery through a separate reserve. It appropriates funding each year to a Disaster Recovery Fund reserve to enable access to ready

cash in the event of a natural disaster. This is intended to assist reinstatement and to finance any short term needs in the time between any disaster and the recommencement of services, the reserve fund had a balance of over \$1.2 million. Council has chosen not to insure its below ground assets given the position of its reserves.

Secondly the TEL Fund was established in September 1995 when TDC sold its investments in Taupō Electricity Ltd and Taupō Generation Ltd. The use of that sale capital and subsequent investment income generated each year are included in Council's Treasury Management Policy. One requirement of that policy is that the portfolio and funds are managed in a manner that reflects their potential utilisation as a disaster recovery fund in the event of a natural disaster within the Taupō district, with the value of the fund being over \$55 million.

With these two funding mechanisms in place Council considers it is prudently but effectively managing the risk of being able to fund both short and long term needs with respect to potential natural disaster and subsequent recovery operations in the district.

## 7.4 Lifelines Risk Assessment

TDC is a member of Waikato utility Lifelines Group. This process aims to identify components within the TDC wastewater network that may be vulnerable to seismic, flood or volcanic events and the impact of failure of these assets.

## 7.5 Risk Register

The specific asset risk register (see following) identifies risks, the consequence of the risk, the existing controls in place, treatment options and the level of risk to the asset as assessed and updated by Council Officers. A possible improvement to the register is to provide each treatment options with an associated cost and added to the risk register; however these are yet to be costed by TDC.

## 7.6 Risk Classification Matrices

### 7.6.1 LIKELIHOOD

**Likelihood scale** for consideration based on **ANZS 4360** is as follows.

<b>Level</b>	<b>Descriptor</b>	<b>Damage / Failure Indicative Frequency</b>
A	Almost Certain	Once per year or more frequently
B	Likely	Once every three years
C	Possible	Once every ten years
D	Unlikely	Once every thirty years
E	Rare	Once every 100 years
N	Almost Impossible	Once in 10,000 years

**Table 1: Risk Likelihood**

### 7.6.2 CONSEQUENCE

**A consequence** scale as a result of a risk event occurring based on **ANZS 3460** is shown for consideration as follows.

<b>Level</b>	<b>Descriptor</b>	<b>Description</b>
5	Catastrophic	Extreme Impact of damage or failure
4	Major	High impact of damage or failure

3	Moderate	Medium impact of damage or failure
2	Minor	Low impact of damage or failure
1	Insignificant	Very little impact of damage or failure
N	Negligible / Nil	Assessment is Nil

**Table 2: Risk Consequence**

### 7.6.3 RISK RATING MATRIX

With both likelihood and consequence scales in place a qualitative risk analysis matrix/level of risk can be determined.

Likelihood	Consequences					
	N	1	2	3	4	5
A	N	L	M	H	E	E
B	N	L	M	M	H	E
C	N	L	L	M	M	H
D	N	L	L	L	M	H
E	N	L	L	L	L	M
N	N	N	N	N	N	N

**Table 3: Risk Matrix**

The rating legend for the matrix, in this example, can be summarized as follows

**E = Extreme risk**

**H = High risk**

**M = Moderate risk**

**L = Low risk**

**N = Negligible risk approaching nil / no risk**

### 7.6.4 RISK MITIGATION MEASURES

High to Extreme risk would normally involve more detailed studies, action plans and management responsibility specifically assigned.

Moderate risk would be managed by monitoring or response procedures and management responsibility specified.

#### 7.6.4.1 Summary of Identified High Risks

This is a summary of the high risks; the complete list is included as table 7-5.

Asset Risk	The Risk	Mitigation Measures
Commercial competition	Commercial operators take control of waste stream and divert waste (Gate Revenue) away from the Broadlands Rd landfill. Contractors focused on tonnes to landfill thus negating Councils Waste minimisation and management plan objectives.	Contract monitoring, performance measures, possible commercial agreement Budget reviews Pricing levels set to make sure that is not viable for competitors to compete

<b>Asset Risk</b>	<b>The Risk</b>	<b>Mitigation Measures</b>
Public safety non-compliance / occupational health and safety non-compliance	Health risk due to access to contaminated sites, heavy machinery movements, access to recycling areas that are hazardous (steel pile, conc pile, waste wood pile and glass area), potential for acceptance of hazardous materials ( Bombs, Haz waste , Flammable material)	Appropriate signage on hazard areas, appropriate signage as to what can be dropped off adequate training provided, adequate PPE for staff)
Volcanic eruption	We have active volcanoes at the end of the lake with recent eruptions. Ash could affect the operation of facilities and collection vehicles	Suspend collections and close facilities until ash is removed or it is safe to operate. Schedule additional collections runs and extend operating hours of facilities after the event. If the landfill was closed then we could truck material to an alternative disposal site

**Table 0-4: Identified High Risks**

## 7.7 Critical Assets

The Solid Waste cost centre not only provides assets such as the Broadlands Rd landfill and district transfer stations it also provides a number of non asset based services, the most important being the district refuse and recycling contract that provides kerbside collection to urban areas in the district.

The risk assessment has identified a number of scenarios that could possibly mean that the landfill and or RTS sites may be unable to receive material.

The solid Waste facilities and the Broadlands Rd landfill can act as stockpile points if an emergency failure was to occur. The Broadlands Rd transfer pit can be utilised to transport waste out of the district to other landfills in the short term. The refuse and recycling collection can be altered to alternative days and the materials collected can also be changed to cater for whatever the failure might be. In a recent flooding incident, residents were notified of a drop off point that materials would be collected from which enabled the service to continue.

Refuse and Recycling collection can be changed to twice weekly depending on access issues and all material could be collected in the one truck, i.e. postponing recycling in the short term if the nature of the event meant that service delivery was severely compromised.

Council's facility and service delivery contractors do have additional resources available on call to provide for collection and site operations.

The Broadlands Rd landfill has a water cart and a water reservoir in case of fire.

The liner system providing containment at the landfill has been designed to allow for some movement. The repair of any liner damage would need to be worked through with Councils peer reviewer for the site and the regional Council.

If there was volcanic ash covering facilities, we may have to close them until after the event, or work to remove the ash so that facilities could continue to operate. Collection operations would be dependent on level of ash and whether it was safe for the operators.

Households may have to stockpile waste until facilities can reopen, then Council could organise additional collection runs to deal with the volumes.

Large volumes of ash could be stockpiled, preferably on farmland as it would not need to go to landfill, Council would have to negotiate with landowners.

#### Landfill fires

Landfill fires are a common risk for disposal facilities especially in the winter months where people are looking to dispose of fire ash. This material can come to facilities on the back of trailers or in refuse bags. Staff are trained to look for hot materials and council undertakes regular landfill fire training.

A fire at the Broadlands Rd landfill may require that refuse is not able to be disposed at the site while the fire is being handled. The onsite tipping pit can be used to load out bigger vehicles for bulk load transfer to an alternative disposal site. Waste from the five transfer sites could also be transported to an alternative site. The closest alternative site would be the Rotorua landfill and council would have to negotiate a short term disposal agreement.

### **7.7 Legislation requirements**

The waste minimisation Act requires that a Waste Assessment is completed prior to the development of Councils WMMP. The Waste assessment provides the back ground data to the strategy and the strategy will provide details as to how Council will spend Waste minimisation levy funds, reporting on this spend is an annual requirement. Reporting on resource consents for closed and operating landfills is scheduled through a consultancy firm who provides monitoring and analysis services.

Waste Minimisation Act also requires that waste tonnages are reported to Mfe on a monthly basis.

The landfill operational consent requires that site operations and new cell builds are overseen by a peer reviewer who makes sure that best practise is being implemented. The peer reviewer also provides advice on problems arising.

The consent also requires a contingency plan for site operations, and this document can be found in Objective. (Councils file storage system)

# Taupo District Council

## Asset Management Plan

### Risk Register

Division:	Works	Compiled by:	Brent Aitken	Date:	6/9/5
Asset:	Solid Waste	Reviewed by:		Date:	

### NATURAL RISKS

Asset Risks	The risk: What can happen and how it can happen	The consequences of an event happening		Adequacy of existing controls	Consequence rating	Likelihood rating	Level of risk	Risk priority
		Consequences	Likelihood					
Earthquake	<b>Landfill or Transfer Station structures damaged due to earthquake due to:</b>							
	Fill Slumping	Moderate	Unlikely	PE (see Note 1)	3	D	L	
	Liner Failure	Major	Unlikely	PE (see Note 1)	4	D	M	
	Access to disposal sites blocked, refuse unable to get to disposal sites	Major	Unlikely	PE (see Note 2)	4	D	M	
	Surrounding environment polluted due to Leachate loss from pond or lined landfill cell	Major	Unlikely	PE (see Note 3)	4	D	M	
	Compaction Plant at RTS damaged	Moderate	Unlikely	E	3	D	L	
	Weighbridge damaged and unable to weigh	Moderate	Unlikely	E	3	D	L	
	Computer system damaged and unable to record transactions	Minor	Unlikely	E	2	D	L	
	Refuse collection unable to proceed	Major	Unlikely	E (see note 2)	4	D	M	
Volcanic Eruption	Damage to Closed landfills	Moderate	Unlikely	E (see note 4)	3	D	L	
	Refuse collection unable to proceed	Major	Unlikely	E (see note 2)	4	D	M	
Ash fall	Potential for structural damage to RTS and Landfill buildings	Moderate	Unlikely	E	3	D	L	
	Refuse collection unable to proceed	Minor	Rare	E (see Note 2)	2	E	L	
Ash fall	Potential for structural damage to RTS and Landfill Buildings	Moderate	Rare	E	3	E	L	
	Access to disposal sites blocked, refuse unable to get to disposal sites	Moderate	Rare	E	3	E	L	
	Weighbridge damaged and unable to weigh	Moderate	Rare	E	3	E	L	



Asset Risks	The risk: What can happen and how it can happen	The consequences of an event happening		Adequacy of existing controls	Consequence rating	Likelihood rating	Level of risk	Risk priority
		Consequences	Likelihood					
	Compaction Plant at RTS damaged	Moderate	Rare	E (see note 5)	3	E	L	
Lahar	Refuse collection unable to proceed	Minor	Rare	E	2	E	L	
	Access to disposal sites blocked, refuse unable to get to disposal sites	Minor	Rare	E	2	E	L	
Flooding	Refuse collection unable to proceed	Moderate	Unlikely	E	3	D	L	
	Access to disposal sites blocked, refuse unable to get to disposal sites	Moderate	Unlikely	E	3	D	L	
	Surrounding environment polluted due to Leachate loss from pond or lined landfill cell	Major	Unlikely		4	D	M	
	Fill Slumping	Moderate	Unlikely	E	3	D	L	
	Liner Failure	Major	Unlikely	E	4	D	M	
	Compaction Plant at RTS damaged	Moderate	Unlikely	E	3	D	L	
	Weighbridge damaged and unable to weigh	Minor	Unlikely	E	2	D	L	
	Computer system damaged and unable to record transactions	Minor	Unlikely	E	2	D	L	
	Damage to closed Landfills	Moderate	Unlikely	E	3	D	L	
Tsunami	Potential for structural damage to RTS and Landfill buildings	Moderate	Rare	E	3	E	L	
Fire	Landfill fire would restrict dumping and close landfill	Major	Possible	PE (see note 6)	4	C	M	
	Potential for structural damage to RTS and Landfill buildings	Moderate	Possible	E	3	C	M	
	Fill Slumping	Moderate	Possible	E	3	C	M	
	Liner Failure	Major	Unlikely	E	4	D	M	
Lightening	Compaction Plant at RTS damaged	Minor	Rare	E	2	E	L	
	Weighbridge damaged and unable to weigh	Minor	Rare	E	2	E	L	
	Computer system damaged and unable to record transactions	Minor	Rare	E	2	E	L	
High winds	Potential for structural damage to RTS and Landfill buildings	Minor	Unlikely	E	2	D	L	
	Litter strewn across a wide area	Minor	Almost Certain	E (see note 7)	2	A	M	
Land slide/slip	Fill Slumping	Moderate	Possible	E	3	C	M	
				E	4	C		

Asset Risks	The risk: What can happen and how it can happen	The consequences of an event happening		Adequacy of existing controls	Consequence rating	Likelihood rating	Level of risk	Risk priority
		Consequences	Likelihood					
	Liner Failure	Major	Possible	E	2	C	M	
	Refuse collection unable to proceed	Minor	Rare	E	3	E	L	
	Access to disposal sites blocked, refuse unable to get to disposal sites	Moderate	Rare				L	
Tomo's	Fill Slumping	Moderate	Unlikely	NC	3	D	L	
	Liner Failure	Major	Unlikely	NC	4	D	M	
	Potential for structural damage to RTS and Landfill buildings	Minor	Unlikely	NC	2	D	L	
Geothermal activity	Fill Slumping	Moderate	Possible	NC	3	C	M	
	Liner Failure	Major	Possible	NC	4	C	M	
	Potential for structural damage to RTS and Landfill buildings	Minor	Unlikely	NC	2	D	L	

**EXTERNAL RISKS**

Asset Risks	The risk: What can happen and how it can happen	The consequences of an event happening		Adequacy of existing controls	Consequence rating	Likelihood rating	Level of risk	Risk priority
		Consequences	Likelihood					
War	Potential for structural damage to RTS and Landfill buildings	Moderate	Almost Impossible	NC	3	N	N	
	Refuse collection unable to proceed	Major	Almost Impossible	NC	4	N	N	
	Access to disposal sites blocked, refuse unable to get to disposal sites	Major	Almost Impossible	NC	4	N	N	
Terrorism	Potential for structural damage to RTS and Landfill buildings	Minor	Rare	NC	2	E	L	
	Refuse collection unable to proceed	Moderate	Rare	NC	3	E	L	
	Access to disposal sites blocked, refuse unable to get to disposal sites	Moderate	Rare	NC	3	E	L	
Protests/Riots	Refuse collection unable to proceed	Moderate	Rare	NC	3	E	L	
	Access to disposal sites blocked, refuse unable to get to disposal sites	Moderate	Rare	PE	3	E	L	
Vehicle accident	Refuse collection unable to proceed	Moderate	Likely	E	3	B	M	
Contractual obligations not fulfilled by external parties	Delayed works programme potentially resulting in: Refuse being left in streets	Minor	Almost Certain	E	2	A	M	

Asset Risks	The risk: What can happen and how it can happen	The consequences of an event happening		Adequacy of existing controls	Consequence rating	Likelihood rating	Level of risk	Risk priority
		Consequences	Likelihood					
	Landfill cells not being built in time for refuse disposal	Major	Unlikely	E	4	D	M	
Excessive costs to maintain, renew or create assets	Excessively high maintenance and construction costs due to having to import material (Clay liners, HDPE plastics drainage aggregate) from outside the district resulting in less work achievable within budget	Moderate	Unlikely	PE (see note 8)	3	D	L	
Lack of contractors to carry out works	Loss of competitive contract rates and increased contract rates due to having to import contractors from outside the district	Moderate	Unlikely	E	3	D	L	

**PHYSICAL RISKS**

Asset Risks	The risk: What can happen and how it can happen	The consequences of an event happening		Adequacy of existing controls	Consequence rating	Likelihood rating	Level of risk	Risk priority
		Consequences	Likelihood					
Inadequate design, construction or maintenance of asset	Damage to landfill or RTS buildings and or compactors with possible Health and safety issues	Major	Possible	E	4	C	M	
	Major failure of landfill liner resulting in pollutants entering the surrounding environment	Major	Possible	E	4	C	M	
Premature asset failure	Failure due to not predicting growth rates accurately and refuse fill rates	Major	Unlikely	E	4	D	M	

**OPERATIONAL RISKS**

Asset Risks	The risk: What can happen and how it can happen	The consequences of an event happening		Adequacy of existing controls	Consequence rating	Likelihood rating	Level of risk	Risk priority
		Consequences	Likelihood					
Commercial Competition	Privately run landfill or RTS opened in the district or close by taking refuse from Broadlands and thus revenue	Major	Possible	NC	4	C	M	
	Privately run landfill subsidising transport costs for waste to go out of the district, thus loss of revenue	Major	Possible	NC	4	C	M	
	Kerbside refuse collectors obtaining a monopoly in the collection market thus controlling prices to the community	Moderate	Likely	PE (see note 9)	3	B	M	
	Kerbside refuse collection contractors focused on tonnes to landfill and thus making Council recycling targets unachievable	Moderate	Almost Certain	PE (see note 9)	3	A	H	

Asset Risks	The risk: What can happen and how it can happen	The consequences of an event happening		Adequacy of existing controls	Consequence rating	Likelihood rating	Level of risk	Risk priority
		Consequences	Likelihood					
Legislative non-compliance	E.g. Not obtaining Resource Consent, not abiding by LGA. Major Resource Consent Breach.	Major	Unlikely	E	4	D	M	
	Not achieving targets set in MFE guidelines or Council	Major	Possible	E	4	C	M	
	Waste strategy	Moderate	Possible	PE (note 10)	3	C	M	
	Not achieving annual plan and or LTCCP objectives	Moderate	Possible	E	3	C	M	
Failure to identify all assets condition and value	Won't have in place an optimum maintenance or renewal programme and budget. Rating for renewal incorrect	Moderate	Possible	PE	3	C	M	
Incorrect assessment of financing required to renew or create assets	Over spent budget and/or delayed project completion	Minor	Likely	E	2	B	M	
Community expectation not met	Communities faith and trust of Council lost	Moderate	Likely	PE	3	B	M	
Loss of Council reputation	Communities faith and trust of Council lost	Moderate	Likely	PE	3	B	B	
Public safety non-compliance	Public safety put at risk	Major	Likely	PE (see note 11)	4	B	H	
	Health Risk due to access to contaminated sites	Major	Likely	PE	4	B	H	
	Heavy machinery movements	Major	Likely	PE	4	B	H	
	Access to recycling areas that are hazardous (steel pile, conc pile, waste wood pile, glass area)	Major	Likely	PE (see note 12)	4	B	H	
	Potential for acceptance of Hazardous materials (bombs, Haz waste, flammable materials)	Major	Likely	PE	4	B	H	
Loss of electronic data/information on assets	No access to data – potential for work to be delayed	Minor	Possible	PE (see note 13)	2	B	M	
	Loss of data– data will have to be recollected and work significantly delayed	Minor	Rare	PE (see note 13)	2	E	L	
Loss of Council employees from high staff turnover	Loss of local knowledge both present and historical	Moderate	Likely	PE (see note 14)	3	B	M	

## Notes:

1. Landfill Liner designed for base movement
2. Refuse can be held at local RTS or moved to site that is not effected, community notified not to place refuse out for collection and alternative disposal sites used
3. Depending on severity, Leachate could be contained within bunding and piped, Ground Water in the vicinity of the landfill is not potable due to geothermal influence
4. Closed landfills have operating closure consents requiring mitigation and repair of damage, funding coming from TEL fund.
5. Transfer stations can still operate by placing uncompacted refuse into trucks and transporting to disposal site.
6. Have a water truck on site, site has an emergency evacuation procedure, will monitor potential harmful effects of smoke for the surrounding area and evacuate if necessary.
7. Contractor employs litter fences, and has staff available for litter clean up.
8. Review budgets annually, although can not allow for things like petrol increases during the year, which could effect product use choices.

9. Potentially controlled by bylaw or licensing provisions
10. Commercial operators may not be aligned with waste strategy and thus Council may not be able to achieve targets set
11. Sites are kept up with best practise for operational health and safety
12. Council still wants to encourage reuse of materials at disposal sites and thus will run the risk of injury to the public when they are among this material, signage identify that they do so at their own risk is displayed.
13. Daily computer back-ups, virus protection software, some data in hard copy
14. Asset Management Plans, documentation

Council's asset management working group have gone through a process where critical assets have been identified and documented, the main critical asset for Solid waste is the Broadlands Rd landfill. If the landfill were to become compromised Council could use the domestic disposal pit to load trucks to enable waste to be transported to an alternative disposal site, the closest being either the Envirowaste site north of Hamilton or HG Leach's landfill in the Coromandel.

#### Commercial competition

As Council has a mixed funding model for the provision of waste services (rates and user charges) council does compete in the market to provide waste services such as landfill disposal and kerbside collection of refuse.


Currently waste collected by council or commercial market provider's ends up for disposal at the Broadlands Rd landfill. Council uses part of the revenue from gate charges to fund waste minimisation activities in the district. There are alternative disposal sites in New Zealand which could take the waste disposed at Broadlands Rd. Council must use the mix of rate funds and user charges to keep the disposal fee below the level where a competitor could, handle, transport and dispose at an alternative site. If the market considered that they could achieve this outcome and charge a lower price for disposal as a gate fee then there is the potential that Council would be left running a disposal facility but with no waste to cover the operational costs. Rotorua Council put themselves in this predicament recently which has meant that had to close their landfill and now the waste stream is dominated by commercial operators, reducing their council's ability to influence waste minimisation.


To safeguard the revenue stream into the Broadland Rd Landfill, Council has had to enter into a commercial arrangement with the biggest operator in the district, which gives them a differential pricing arrangement for waste disposal. As they are also the contract providers for landfill operation and kerbside collection Council has been able to lock in this agreement for the term of their contracts.

As the Broadlands Rd landfill has an additional twenty years of disposal space after the 2027 consent expiry date Council will again have to negotiate with the market at the end of these contract terms.

Council does have the ability to go to fully rates funded service delivery, for the kerbside collection service and this would secure 6000 tonnes of waste. Commercial operators are not going to compete with the district transfer stations as the waste volumes are too small to warrant the capital investment, so the main risk is the Broadlands Rd site and the revenue stream it creates.

Due to the geographical isolation of Taupo and the distance to the nearest large disposal facility (North of Hamilton or Rotorua) and Council's ability to alter fees with the support of partial rate funds it is considered that as long as Council continues to monitor the cost of transport and disposal costs at alternative facilities council will be able to avoid waste flight.

INADEQUATE RESOURCING Short term focus and long term uncertainty due to political swings in strategy and objectives				
<p><b>TREATED RISK</b> <b>Moderate</b> (Risks to be actively managed and monitored with specific procedures)</p>		<p><b>NEGATIVE IMPACTS ON ORGANISATION</b></p> <ul style="list-style-type: none"> <li>• Potential to impact of long term financial sustainability</li> <li>• May cause result in on compliance with legal and regulatory obligations</li> <li>• Potential to fail to meet customer &amp; ratepayer commitments</li> </ul>	<p><b>TREATMENT MC00102</b> Modification of the risk by way reduction of the likelihood of the risk occurring by the completion of Long Term and Annual Planning in accordance with sections 93 &amp; 95 of the Local Government Act 2002.</p>	<p><b>TREATMENT/RISK STATUS</b> Long term planning id being undertaken as per the requirements of the Local Government Act and these are expected to ensure that adequate resources are available to deliver the policies and outcomes required by the community and is nearing completion</p> <p>Within Council's risk appetite with no breaches of legal compliance and strategic goals are being achieved and no incidents of reputational damage recorded.</p> <p style="text-align: center;"></p>
<p><b>UNTREATED RISK</b> <b>High</b> (Untolerable. Requires management over and above standard operational procedures to reduce the risk))</p>				
UNTREATED LIKELIHOOD	Likely			
UNTREATED SEVERITY	Catastrophic			
TREATED LIKELIHOOD	Unlikely			
TREATED SEVERITY	Catastrophic			

HEALTH AND SAFETY AT WORK ACT 2015 Potential liabilities for elected representatives if all reasonably practical steps are not taken to manage health and safety risks				
<p><b>TREATED RISK</b> <b>Moderate</b> (Tolerable but requires risks to be actively managed And monitored with specific procedures)</p>		<p><b>NEGATIVE IMPACTS ON ORGANISATION</b></p> <ul style="list-style-type: none"> <li>• Risk of compromising peoples safety &amp; welfare</li> <li>• Potential for non compliance with legal and regulatory obligations.</li> <li>• Penalties for non compliance could have a significant impact of long term financial performance.</li> <li>• Seen as a failure to meet customer &amp; ratepayer commitments</li> </ul>	<p><b>TREATMENT</b> The risk is being modified to reduce the likelihood of it occurring by ensuring that the Chief Executive Officer has appropriate processes and procedures in place to reduce and this is managed with specific KPIs in their individual employment agreement.</p>	<p><b>TREATMENT/RISK STATUS</b> Delegated authority to the Chief Executive Officer and specific KPIs are in their individual employment agreement. Act comes into effect on 4 April 2016. Health and Safety reviews of departments to commence to ensure that the Council is meeting its obligations under the Act.</p> <p>Council has no appetite for anything that compromises safety, welfare and legal non compliance. No non compliances recorded but 36 minor injuries recorded and 3 moderate injuries that required medical attention. No serious harm incidents.</p> <p style="text-align: center;"></p>
<p><b>UNTREATED RISK</b> <b>High</b> (Untolerable. Requires management over and above standard operational procedures to reduce the risk)</p>				
UNTREATED LIKELIHOOD	Possible			
UNTREATED SEVERITY	Major			
TREATED LIKELIHOOD	Unlikely			
TREATED SEVERITY	Moderate			

