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 is 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.

7.1.1.1 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.

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 Stormwater network that may be vulnerable to seismic, flood or volcanic events and the impact of failure of these assets. The critical assets include pump stations, major pipelines and overland flow paths. Some may even need to be replaced or upgraded.

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

The Three waters maintenance contract includes an after-hours emergency response for network issues and customer complaints. 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 notified of emergency calls and for Waste Water spills that have come through the Stormwater network there is a spill response protocol.

3 TDC Risk Management Framework

GREAT LAKE TAUPŌ
Taupō District Council

Risk Assessment Criteria

			Low Criticality		Moderate Criticality	High Criticality	
			Consequence			Major	Extreme
		Health & Safety	Ailments 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
		Reputation	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 Enquiries
		Financial	1% of Budget	2-5% of Budget	> 5% of Budget	> 10% of Budget	> 25% of Budget
		Organisational Objectives - Strategic Plan	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 stop achievement of strategic plan
			1	2	3	4	5
			Insignificant	Minor	Moderate	Major	Catastrophic
Likelihood	Expected in most circumstances. Has occurred on an annual basis at the Taupo District Council in the past or circumstances are in train that will cause it to happen	A	Almost Certain	L	M	H	E	E
	Has occurred in the last few years at the Taupo District Council or has occurred recently in other similar agencies or circumstances have occurred that will cause it to happen in the short term	B	Likely	L	M	H	H	E
	Has occurred at least once in the history of the Taupo District Council or is considered to have a 5% chance of occurring in the current planning cycle	C	Possible	L	M	M	H	H
	Has never occurred at the Taupo District Council but has occurred infrequently in other similar agencies or is considered to have a around a 1% chance of occurring in the current planning cycle	D	Unlikely	L	L	M	M	H
	Exceptional circumstances only. Is possible but has not occurred to date in any similar agency and is considered to have very much less than a 1% chance of occurring in the current planning cycle	E	Rare	L	L	L	M	M

Extreme	Unacceptable	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. To ascertain that, the condition assessment of the below ground assets are programmed into CCTV program which is rolled out across the network.

7.2.1 DEFINING ASSET CRITICALITY FOR WATER SERVICES

Taupo District Council Defining Asset Criticality for Water Services

Taupo District Council provides water supply, wastewater drainage and Stormwater drainage to most of the communities within the district. Most of these communities are located immediately adjacent to one of the lakes or rivers that are the primary focus for recreation and tourism by residents and visitors.

Providing these services utilises a wide range of civil, mechanical, monitoring and electrical assets, which need to be operated, maintained and ultimately renewed or enhanced.

The principles of asset management are fundamental to operating these assets and capture the concepts of:

- Delivering the desired service to an agreed Level of Service
- Managing the risks associated with providing the service to an acceptable level
- Seeking to optimise the life cycle costs of owning and operating/maintaining the assets.

A key tool for asset management is the concept of Criticality, which is closely linked to the Consequences of Failure. It follows that low criticality assets have low consequences of failure and can be largely managed on a 'fix when fail' basis. At the other end of the spectrum, high criticality assets have high consequences of failure and the management of such assets will be focussed on trying to avoid failures through a range of pro-active monitoring, inspection, assessment and renewal processes.

Alongside the assessment of 'Consequences of Failure', all assets can also be assessed in relation to their 'Likelihood of Failure', which is largely a measure of their age, life expectancy and the extent of deterioration that has occurred. Assets that exhibit both high consequence and high likelihood represent the highest risk to the organisation's ability to deliver the required services to the community.

Understanding which assets have an elevated criticality allows the organisation to focus resources on their care and eventual renewal. Typically, there is a relatively small number of these assets and the process is manageable.

Equally important is the identification of assets that have the lowest criticality. While these assets still need to be maintained and eventually replaced, this can largely be managed by generic processes with relatively minimal management overview and intervention. In an industry characterised by limited resources in relation to skills, manpower and funding this difference allows the resourcing to be focussed on the assets that will cause the most pain if they fail.

Note: for the full criticality report is stored in Councils Objective data storage system.

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 it's below ground assets given the position of its reserves.

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 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 Stormwater 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.
Risk Classification Matrices

7.5.1 LIKELIHOOD

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

Level	**Descriptor**	**Damage / Failure Indicative Frequency**
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

7.5.2 CCONSEQUENCE

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

Level	Descriptor	Description
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

7.5.3 RISK RATING MATRIX

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

	Consequences					
Likelihood	**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

7.5.4 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.

7.5.4.1 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
Public safety non-compliance Stormwater quality	Public safety due to high flows in overland flow paths and gullies. And people accessing the stormwater network Containments entering receiving waters through the stormwater network	Outlets and inlets have grills and flow paths have signage Council has a spill response procedure and are funding additional quality improvement devices.

Table-4: Identified High Risks

7.6 Critical Assets

The Stormwater AMP does have some overlap with the transportation AMP when it comes to identifying and providing for overall risk. The transportation AMP has allowed for the risk associated with culverts and stormwater assets in the rural environment while this AMP provides risk analysis for urban stormwater assets.

Flooding has been identified as the highest risk from the breakdown of Stormwater asset delivery. To counter this risk Council has undertaking an overland flow path study, which has identified the path Stormwater will take once the stormwater network is full. Council has also increased the design size for new networks to allow for climate change, this increase in capacity provides greater protection to property and our unique environment from the effects of major rainfall events.

The overland flow path identification will also allow council to protect areas where water will travel overland and enable Council to plan building envelopes on properties to mitigate flooding risk (once completed). To enable Council to have a full understanding of the Risks of flooding on private property, modelling of the network needs to be undertaken as flooding or capacity issues arise. Currently the flow path mapping assumes that the pipes are full but does not fully consider the impact that network may have on flooding levels.

Council has also identified that with the advent of stormwater treatment at source Council will see an increase in the use of ephemeral gullies as well as pond based systems, the public should be made aware of the Health and safety risks and be prevented access if appropriate.

Council has a program in place to attach safety grills on inlets and outlets 450 diameter and over to reduce the risk of access. This assessment also has to take into account the risks of debris being caught in grate and thus causing flood damage.

Council will also continue to identify manhole lids that "pop" in high rainfall events. Either manholes will be bolted down or a lid with a grill will be placed on to allow water to flow over land if possible.

Through Levels of Service monitoring and continuous condition assessment while implementing the Stormwater Maintenance Contract, critical risks will be effectively controlled.

As Council has now been granted district wide comprehensive Stormwater consents, Council is now responsible for degradation of receiving environments due to stormwater discharge. Council will endeavour, with education and enforcement to make sure that contaminants are not disposed of into the Stormwater system, which would lead to contamination of the receiving environment and a breach of Resource Consent. This can also be undertaken by introducing stormwater quality devices into the network, and two devices (Hynds Downstream Defender) have been installed along the lakefront to date.

The Stormwater management plan which is a requirement of Councils comprehensive stormwater discharge consent identifies a number of "High Risk" sites (high-risk facility sites are defined as Commercial and industrial sites as listed in Section 3.5.12 of the Waikato Regional Plan). These high-risk sites relate directly to their environmental harm potential from the commercial businesses that operate within their catchment, Council is progressively working through these sites to provide on going maintenance and enforcement and to provide Stormwater quality improvement devices where applicable.

Council is also building a register of quality improvement devices located within the district, these devices are critical in reducing the effects of stormwater on the districts receiving environments, they are maintained on a regular basis.

From an overall risk perspective, it is imperative that Council continues to develop its overland flow study to determine overland flows after either asset failure or assets reaching their design capacity as this study will enable Councils regulatory arm to prevent development in these areas.

In the Taupō district, Council does have a number of gully systems that can be utilised as stormwater flow paths, it is also important that gullies are maintained in Council ownership so that development in them is prevented and also so that they can be planted and maintained appropriately.

The asset management team have had a number of meetings to determine which assets are critical to the networks based on a number of criteria such as:

- Political
- Environmental
- Value
- Cost to repair
- Capacity

The identification of these assets has been coordinated by the assets team with the assets selected displayed on a number of maps which will be added to a GIS layer. These maps will also have the lifelines critical assets included as another layer. The GIS layers will be available to the assets managers as well as the civil defence team to enable the coordination of any emergency response program.

The critical assets will undergo regular condition assessments to make sure that renewal and maintenance works are planned appropriately.

The Civil defence team are aware of the overland flow path data as it will assit them in identify where there may be flooding issues in heavy rainfall events.

The layer is also available to the building control staff that can use the draft data to determine if an issue exits prior to allowing building activity to commence.

The Taupo district has seen some major volcanic eruptions over the last twenty years and this issue rates highly in regards to possible risk to the Stormwater network.

A volcanic eruption could see large amounts of ash falling across urban centres that could block the piped network, fill detention ponds and effect over land flow paths. If there were a weather event or even rainfall at the time of the event then the piped network would be compromised.
The overland flow path model does identify where water will flow in a 1:100yr event and this will give staff an idea as to which areas would be impacted the most, and enable them to concentrate contract staff.
As Council has only one significant pump station in the Stormwater network, council would have the ability to take this off line and use the pond for detention in the short term and or bring in an alternative pump if pond levels were to get too high.

Council would implement a program of network cleaning once the volcanic event had ceased to remove material from the pipes before it hardened.

Conclusion

Fundamentally, the Stormwater assets do not have a backlog of renewal and maintenance requirements and have not had a history of unplanned asset failure. Over the term of the Comprehensive Consent and further historically Council has never breached its Consent requirements.

There has also not been a flooding incident that has affected a habitable floor level in the past 18 years in the district.

Council now has a robust data management system (Asset Finda) that can accurately combine age, condition, criticality and past maintenance history to determine future renewal spend and asset value. The recently completed criticality assessment of the Three Waters Assets and its inclusion into Asset Finda has enabled increased inspection, and maintenance of critical assets.

The condition assessment program has identified that the piped network is reasonably good condition for its age although there is the need to undertake some renewals over the next ten years.

The Three Waters maintenance contract provides for emergency response as well as real time collection of asset data.

Council is prone to the effects of climate change but Council has modelled over land flow paths and is working on determining properties affected and this Asset Management Plan provides options to lessen impacts.

Increased pressure on Stormwater quality is being provided for in the quality improvement devices being installed in the network as well as the use of land based disposal options. To support quality improvements Council undertakes a comprehensive monitoring program.

Damage to Council infrastructure is funded internally with the provision of a risk funding pool.

Demand is mainly funded by developers apart from backlog capacity improvement and quality improvement.

Asset management Plans are externally audited and progress on service levels and work programs are reported to Council monthly.

Taupo District Council

Stormwater Asset Management Plan

Risk Register

Division :	Assets	Compiled by :	Brent Aitken	Date :	10/05/2017
Asset :	Stormwater & Land Drainage	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	Stormwater & Land Drainage network damaged due to earthquake due to : Pipe Fracture	Moderate	Unlikely	E	3	D	L	
	Earth slip failure	Major	Unlikely	E	4	D	M	
	Access to network, due to roading system failure	Major	Unlikely		4	D	M	
	Surrounding environment flooded due to network failure, not able to access network	Major	Unlikely		4	D	M	
	Land subsidence causing changes of grade in pipe network Blocking of inlet and outlet structures	Moderate	Unlikely		3	D	L	
Volcanic Eruption	Drainage network fails as a result : - Blockage of inlet systems from debris	Major	Likely	E	4	C	M	
Ash fall	Blockage of pipes due to sediment from ash or debris, constricting flows	Major	Rare	E	2	E	L	
	- Access to network blocked	Moderate	Rare		3	E	L	
Lahar	Failure of outlets at streams and rivers through silting of river or stream bed from Lahar mud	Minor	Rare	E	2	E	L	
Flooding	Failure of primary and secondary network by : Blockage from debris	Moderate	Unlikely	E	3 3	D D	L L	
	Access to network blocked, contracting staff cannot remedy	Moderate	Unlikely	E	4	D	M	
	- Silting of primary pipe network by debris and silt	Moderate	Likely	E	3	D	L	
	- Damage to private property	Moderate	Likely	E	3	C	M	
Tsunami	Damage to Lake outlet structures from debris and instability caused via waves	Minor	Rare	E	1	E	L	
Fire	Drainage secondary network failure affected by : Reduction in vegetative cover causing erosion and instability in gullies	Major	Possible	E	4	C	M	
	- Greater debris in open watercourse's	Moderate	Possible		3	C	M	
	Primary Drainage network affected by hazardous substance fire or explosion from pollution spill : causing structural damage to pipe and manhole network Damage at outlet from system				4	C	M	
	3rd party damage as a result of fire blow back to various inlets					D	M	

High winds	Potential for structural damage outlet structures from high winds causing : Damage to structural integrity of outlets Silting of pipes Silting of water channels	Minor Minor	Unlikely Almost certain	E	2 2	D A	L M	
Land slip/slide	Silting of primary and secondary network caused from slip, blocking network	Moderate	Possible	E	3	C	M	
Tomos	Failure of primary network as a result of loss of support for pipe system or manhole	Moderate	Likely	NC	3	D	L	
Geothermal activity	Failure of primary network as a result of : loss of support for pipe system or manhole by way of geothermal activity reduction in life assets as a result of geothermal activity	Moderate Major	Possible Likely	NC NC	3 4	C C	M M	

PHYSICAL RISKS

Asset Risk	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	Failure of network as a result of : Damage to network causing flooding Pollutants entering the surrounding environments	Major major	Possible Possible	E E	4 4	C C	M M	

EXTERNAL RISKS

Asset Risk	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	Failure or primary network as a result : damage to network by war events - access to maintain network denied as result of war.	Major Major	Almost impossible	NC NC	4 4	N N	N N	
Terrorism	Failure of network as a result of : damage caused by act of terrorism use of network by terrorists for destructive purposes. - access to maintain network denied	Minor Minor Moderate	Rare Rare Rare	NC NC NC	2 3 3	E E E	L L L	
Protest/Riots	Failure of drainage network as a result of : blockage by debris effect of flooding during a protest	Moderate Moderate	Rare Rare	NC PE	3 3	E E	L L	
Vehicle accident	Failure of network due to pollution from vehicle accident - likelihood of accident due to failure of system from flooding events	Moderate	Likely	E	3	B	L	
Contractual obligations not fulfilled by external parties	Delayed works programme potentially resulting from : network failing and causing flooding - increased potential for pollution to reach receiving environment as a result of lack of maintenance, contravention to RC's.	Minor Major	Almost certain Unlikely	E E	2 4	A D	M M	
Excessive costs to maintain, renew or create assets	Excessively high maintenance and construction costs due : disposal of residual material call-outs for flooding events	Moderate	Unlikely		3	D	L	

Lack of contractors to carry out works	Loss of competitive rates and increased contract rates due to having to import contractors from outside the District	Moderate	Unlikely	E	3	D	L	

OPERATIONAL RISKS

Asset Risk	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 drainage systems affecting performance of TDC's own assets	Major	Possible		4	C	M	
Legislative non-compliance	Not obtaining Resource Consent : - not abiding by LGA major Resource Consent Breach not achieving targets set in MFE guidelines or Council Management/Corporate Goals not achieving Annual Plan objectives not achieving LTCCP objectives	 Major Major Major Moderate Moderate	 Possible Possible Possible Possible Possible	 E E E E E	 4 4 3 3 3	 D C C C C	 M M M M M	
Failure to identify all assets condition and value	Failure of unknown networks by : not already in IMS System recorded incorrectly	 Moderate Moderate	 Possible Possible	 PE PE	 3 3	 C C	 M 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 in non-compliance	Public Safety put at risk by flooding event Health risk due to access to pollution event	Major Major	Likely Likely	PE PE	4 4	B B	H H	
Loss of electronic data/information on assets	No access to data : Potential for work to be delayed Loss of data : Work significantly delayed	 Minor Minor	 Rare Rare		 2 2	E	L	
Loss of Council employees from high staff turnover	Loss of local knowledge : present knowledge historical knowledge	Moderate	Likely		3	B	M	

Table 5.1 – Risk Register of Stormwater Assets

INADEQUATE RESOURCING
Short term focus and long term uncertainty due to political swings in strategy and objectives

TREATED RISK **Moderate** (Risks to be actively managed and monitored with specific procedures) UNTREATED RISK **High** (Untolerable. Requires management over and above standard operational procedures to reduce the risk))	
UNTREATED LIKELIHOOD	Likely
UNTREATED SEVERITY	Catastrophic
TREATED LIKELIHOOD	Unlikely
TREATED SEVERITY	Catastrophic

NEGATIVE IMPACTS ON ORGANISATION
- Potential to impact of long term financial sustainability
- May cause result in on compliance with legal and regulatory obligations
- Potential to fail to meet customer & ratepayer commitments

TREATMENT MC00102
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 & 95 of the Local Government Act 2002.

TREATMENT/RISK STATUS
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

Within Council's risk appetite with no breaches of legal compliance and strategic goals are being achieved and no incidents of reputational damage recorded.

☺

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

TREATED RISK **Moderate** (Tolerable but requires risks to be actively managed And monitored with specific procedures) UNTREATED RISK **High** (Untolerable. Requires management over and above standard operational procedures to reduce the risk)	
UNTREATED LIKELIHOOD	Possible
UNTREATED SEVERITY	Major
TREATED LIKELIHOOD	Unlikely
TREATED SEVERITY	Moderate

NEGATIVE IMPACTS ON ORGANISATION
- Risk of compromising peoples safety & welfare
- Potential for non compliance with legal and regulatory obligations.
- Penalties for non compliance could have a significant impact of long term financial performance.
- Seen as a failure to meet customer & ratepayer commitments

TREATMENT
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.
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TREATMENT/RISK STATUS
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.

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.

☺