



Disaster Management Service Management Plan

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1 EXECUTIVE SUMMARY

Lockyer Valley Regional Council (LVRC) maintains a network of flood warning infrastructure within the LVRC Local Government Area (LGA). This infrastructure includes a range of CCTV cameras and river height and rainfall gauges and is integral to the LVRC Disaster Management intelligence gathering process and forms part of the larger regional oversight of emerging flood situations and catchment conditions. In addition to the CCTV cameras and gauges is a flood warning siren located in Grantham.

LVRC Disaster Management also manages the maintenance of fire trails throughout the Lockyer Valley. The fire trails within the maintenance plan are restricted to land parcels owned by Lockyer Valley Regional Council and do not include private or State controlled land.

LVRC Disaster Management also manages certain assets allocated to the Lockyer Valley State Emergency Service. SES Disaster management and plant assets are *not* included in this document.

Council's Asset Management Goal in managing Disaster Management infrastructure assets is to meet the required level of service for each asset category in the most cost effective manner for present and future operations.

What Does This Plan Cover?

The disaster management assets are valued at \$1.4m (WDV) as at 30 June 2017.

Owning and operating cost analysis

The cost to own and operate the disaster management infrastructure includes the following expenses:

- Depreciation
- Maintenance (physical)
- Maintenance (software)
- Parts
- Labour

1.1.1 RENEWAL EXPENDITURE ANALYSIS

Through the analysis conducted for this SMP, Table 1 details the funding requirements to replace the existing disaster management with like for like items.

TABLE 1- FUNDING REQUIREMENTS (10 YEAR) FOR RENEWALS BASED ON CURRENT LTFP (2017 VALUES)

	\$ (10 year)
Renewal Cost (Gross exc GST)	1,300,000
Disposals	Nil
LTFP	
Surplus/Deficit (10 year)	\$ -130,000

1.1.2 NEW/UPGRADE EXPENDITURE ANALYSIS

Over a ten year period it is envisaged that additional assets with an approximate value of \$425,000 will be added to the disaster management asset register. In addition to the actual assets, an additional annual cost of approximately \$24,500 will be required to maintain these assets.

1.1.3 OVERALL VIEW

The funding available for the disaster management services is not adequate to keep the service sustainable over the 10 year planning period. The lack of funding to support the replacement program is inadequate when compared to the current LTFP.

What are our Options?

Council has the option to fund appropriate service provision through a range of methods:

- Revenue can be managed to provide sufficient funding to deliver the agreed levels of service.
- Funding can be redistributed to or from other asset classes to ensure that all asset classes receive the appropriate funding.
- Disaster management revenue earned above owning and operating costs could be distributed to allow the disaster management replacement program to return to a sustainable level.
- Additional funding through State or Federal grants could be attained.

1.2 SMP IMPROVEMENT PLAN

In order to maintain current Disaster management service levels over the next 10 years, Council will need to continue to maintain disaster management assets to a high standard. As the major assets are component-based equipment (that is major components can be replaced or upgraded without the need for total replacement of the asset).

2 INTRODUCTION

2.1 BACKGROUND

This disaster management service management plan is to demonstrate responsive management of services provided by Lockyer Valley Regional Council's assets, compliance with regulatory requirements, and to communicate funding needed to provide the required levels of service over a 10 year planning period.

The Lockyer Valley Regional Council disaster management assets include the assets contained within Table 2 below:

TABLE - 2. DISASTER MANAGEMENT BREAKDOWN

Asset Type	Qty's
Flood Early Warning System and Siren Grantham	1
Flood Cameras stand-alone	5
Rain/River Height ALERT/Camera stations	3
Flood Early Warning System (Woodlands Rd)	1
Rain / River Height ALERT stations	12
Rain ALERT stations	13
Sandbagging machines	2
Rain ALERT/Repeater stations	3
SES concrete sand bays	2
SES furniture & fittings	Numerous
SES computers & accessories	5
SES Gatton storage structure (shipping container)	1
Fire trails	Numerous

This service management plan is to be read in conjunction with

- Council Corporate Plan 2017-2022
- Lockyer Valley Regional Council Operational Plan 2017-2018

2.2 COUNCIL'S GOALS AND OBJECTIVES FOR DISASTER MANAGEMENT SERVICES

Council operates and maintains the disaster management assets to achieve the following strategic objectives:

- Meet legislative requirements
- Ensure that Council's disaster management services and assets are provided in a sustainable manner, with the appropriate levels of service to customers

- Safeguard Council assets including physical assets and employees by implementing appropriate management strategies and providing appropriate financial resources for those services
- Ensure resources and operational capabilities are identified and responsibility for service delivery and management is allocated
- Ensure that the disaster management service provides full functionality and reliability
- Ensure the disaster management asset base is planned appropriately to cater for future service delivery growth and risk mitigation
- Maximise the asset's useful life whilst minimising lifecycle expenditure
- Maintain a high level of satisfaction in the delivery of disaster management services to our customers

2.3 THE PURPOSE OF THIS DISASTER MANAGEMENT SERVICES MANAGEMENT PLAN

The purpose of this plan is to:

1. Improve our understanding of the disaster management assets and services managed by ensuring access to quality data describing the disaster management asset base and its condition
2. Provide a framework of alignment for the disaster management assets and the levels of service derived from the assets
3. Improve the organizational capabilities for the management of the disaster management assets and services they provide
4. Improve confidence levels in future programs for replacement, provision and maintenance programs with the projected funding requirements understood to deliver the required services
5. Provide guidance for the Council in continuous improvement and working towards advanced service management planning

2.4 LEVELS OF SERVICE & KEY PERFORMANCE INDICATORS

2.5 LEVELS OF SERVICE

In general terms the acceptable minimum level of service for Disaster Management Warning System assets is determined as outlined in Table 3.

Table 3

Level of Service	Description	Key Performance Indicator Description	KPI
Reliability	Due to the nature of the infrastructure and its use in determining flood risk, either as a planning tool or as a means of responding to an emerging event, it is imperative that the equipment works as expected when it is called upon to do so.	<ul style="list-style-type: none"> ▪ Any piece of flood-related infrastructure which is found to be faulty and unusable must be reinstated as soon as possible. The timeframes for reinstatement vary depending on the season. For example during storm season during the months September to March, the expectation for repairs and reinstatement is 24-48 hours. ▪ For the same equipment during the remainder of the year, the expectation for repairs and reinstatement is 24-96 hours. 	<p><u>Storm Season:</u> Repairs and reinstatement is 24-48 hours.</p> <p><u>Remainder of Year:</u> Repairs and reinstatement is 24-96 hours.</p>
Usability	The ability to easily operate the equipment to achieve the outcomes required. It is also important to be able to train new users of the equipment by simple and efficient means.	<ul style="list-style-type: none"> ▪ The level of usability is based on the amount of time it takes to train new staff on the operation of the equipment. The maximum amount of time it should take to train a new staff member to become proficient in the use of the equipment should be no longer than one working day. 	Time to Train New User: 8 hours.
Relevance to the Network	The equipment should be able to maintain its effectiveness as a component in the overall infrastructure network and stand the test of time. If the equipment is no longer able to maintain its effectiveness or relevance in the network either in its current form or by means of upgrade then it should be considered for replacement or decommissioning.	NA	NA

<p>Cost Effectiveness</p>	<p>If it becomes apparent that the equipment is no longer the best value for money option to carry out its task then other alternate options should be considered. This situation may occur due to factors such as the inability to be upgraded further as required, or the introduction to the market of newer more efficient technology.</p>	<ul style="list-style-type: none"> ▪ The minimum standard for this indicator will be based on the interaction with a particular piece of equipment with the rest of the network. If it is shown that the cost of upgrading a piece of equipment is greater than replacement cost then it will be deemed to be inefficient and ineffective, and will be replaced. 	<p>Upgrade cost Versus Replacement cost.</p>
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TABLE 4-. CURRENT SERVICE LEVELS

Classification	Disaster management		
Service Statement	Lockyer Valley Regional Council has effective, well maintained disaster management infrastructure that complies with regulatory requirements and is 'fit for purpose' for the intended use.		
Performance Measure	Internal customers' satisfaction with the performance of plant and disaster management services is high. External customers' (community) benefits greatly from the infrastructure particularly during disaster events.		
Service Factors	Internal Levels of Service	Technical Levels of Service	Performance Measures
Quality			
Condition	Well maintained disaster management items Disaster management items are available when required Disaster management items are generally in good condition	<u>Operations & Maintenance</u> <ul style="list-style-type: none"> Inspect disaster management items on a routine basis to identify condition and to identify defects 	<ul style="list-style-type: none"> 100% of assets inspected annually
		<u>Renewal</u> <ul style="list-style-type: none"> Renew/replace disaster management items when the funding is provided sufficient to undertake this task Replace disaster management items at or nearing, its end of economic life. 	<ul style="list-style-type: none"> 10 year replacement program developed Funding needs developed and communicated
Function			
Fit for Purpose	Disaster management items perform the intended task	<ul style="list-style-type: none"> When replacing disaster management items new technologies and methods of service delivery are explored Disaster management items when operated within manufacturers performance limits complete the intended tasks efficiently 	<ul style="list-style-type: none"> Business cases presented when seeking new asset items not previously held
Capacity/Utilisation			
	Disaster management items are utilised within industry accepted benchmarks	<ul style="list-style-type: none"> Disaster management items utilisation compared to industry benchmarks for reasonableness 	<ul style="list-style-type: none"> Reporting on disaster management item utilisation undertaken regularly

3 FUTURE DEMAND

3.1 DEMAND FORECAST

Factors affecting future demand for disaster management services include what services Council delivers to the community, these services in turn are influenced by; population projections, demographics, seasonal factors, economic factors, etc. Disaster management requirements are tied to the quantity and type of services supplied to the Lockyer Valley community. Demand for new disaster management services will be managed through a combination of managing existing assets, upgrades, provision of new assets to meet demand and demand management. Demand management practices may include non-asset based solutions, insuring against risks, appropriate risk mitigation strategies and managing failures.

TABLE 5. DEMAND MANAGEMENT INFRASTRUCTURE PLAN SUMMARY

Disaster management	
Service Activity	Demand Management Plan
Demand for new disaster management items not previously held	<ul style="list-style-type: none"> • Business case developed with all options considered including delivering services from non-asset based solutions
Infrastructure creep from growth	<ul style="list-style-type: none"> • Disaster management holdings matched to service delivery • Flexible approach to disaster management services with disaster management items held to provide core service delivery and peaks in outputs managed by non - owned disaster management solutions
Revenue Management	<ul style="list-style-type: none"> • Manage financial resources to correlate with trending deterioration of assets and commit to disaster management infrastructure replacement program appropriately funded
Increased disaster management age	<ul style="list-style-type: none"> • Accept proposed disaster management useful lives contained in this SMP • Ensure effective maintenance regimes are undertaken • Review utilisation to ensure that disaster management holdings are 'right sized' for Councils agreed service provision • Plan to make the disaster management business sustainable over this planning period

The Demand Management Planning process will need to be applied to all disaster management infrastructure types, to ensure that the Council understands the funding requirements to deliver the necessary disaster management assets and what is required going forward to adequately provide the disaster management items to provide services to the community.

TABLE 6. CRITICAL RISKS/ INCIDENTS AND TREATMENTS FOR DISASTER MANAGEMENT ASSETS

ASSET AT RISK	CRITICAL INCIDENT	CAUSE	LIKELIHOOD	RISK RATING	RISK TREATMENT PLAN
River height gauges	Damage from Flood event	Damage caused by water flow and/or debris	Possible	Moderate	<ul style="list-style-type: none"> • These assets are designed and built to withstand flood events and they are located in positions so that the risk is reduced as much as possible while still remaining effective. • These assets are designed and built to be robust and are difficult to render inoperable through wilful damage. • These assets have proven to be reliable and rarely fail. A regular maintenance regime adds to the reliability.
	Vandalism	Wilful damage	Possible	Moderate	
	Equipment failure	Failure of components	Possible	Moderate	
Flood Warning Cameras	Damage from Flood event	Damage caused by water flow and/or debris	Possible	Moderate	<ul style="list-style-type: none"> • These assets are designed and built to withstand flood events and they are located in positions so that the risk is reduced as much as possible while still remaining effective. • These assets are designed and built to be robust and are difficult to render inoperable through wilful damage. • These assets have proven to be reliable and rarely fail. A regular maintenance regime adds to the reliability.
	Vandalism	Wilful damage	Possible	Moderate	
	Equipment failure	Failure of components	Possible	Moderate	
State Emergency Service Assets	Damage to or theft of asset	Accidental damage caused by personnel	Possible	Moderate	<ul style="list-style-type: none"> • Any damage to items is reported to Council by Local Controller • Regular audits are carried out by Local Controller and any missing items are reported and investigated.
		Theft	Possible	Moderate	
Fire Trails	Trail becomes impassable due to degradation of surface	Adverse weather conditions and/or unauthorised use by recreational off road enthusiasts	Likely	Moderate	<ul style="list-style-type: none"> • Regular inspection and maintenance program for fire trails. Program priorities are based on input from Rural Fire Service Qld, customer feedback and Council advice.

Council’s adopted useful lives and anticipated residual values at time of disposal for each asset type are shown in Table 7 below.

TABLE 7. DISASTER MANAGEMENT ASSET LIVES AND RESIDUAL VALUES (ADOPTED)

Asset type	Life	% Residual
Flood Early Warning System and Siren Grantham	10	10%
Flood Cameras stand-alone	10	10%
Rain/River Height ALERT/Camera stations	10	10%
Flood Early Warning System	10	5%
Rain / River Height ALERT stations	10	10%
Rain ALERT stations	10	10%
Sandbagging machines	10	20%

The useful lives contained within Table 7 are generally slightly higher than the standard local government industry accepted useful lives for disaster management assets, however these adopted lives have been proven to be acceptable based on the Councils own experience of operating this equipment in service over many years in the local environment.

3.2 DISPOSAL PLAN

Disposal includes any activity associated with the disposal of a decommissioned asset including sale, demolition or relocation.

No assets have been identified for possible decommissioning and disposal; rather all current disaster management assets would be replaced at the end of their economic life or their relevance or viability was reduced to an unworkable level. As the flood warning infrastructure assets are component based I.E the assets are comprised of modular components which can be replaced or upgraded as required without the need to replace the whole unit, there is no timetable for asset disposal.

SES assets covered in the plan are domestic items and no disposal timetable is required, rather they will be replaced on as as-needs basis.

4 DISASTER MANAGEMENT ASSET ANALYSIS

4.1 ASSUMPTIONS

This section details the key assumptions made in presenting the information contained in this service management plan and in preparing forecasts of required operating and capital expenditure and asset values, depreciation expense and carrying amount estimates. It is presented to enable readers to gain an understanding of the levels of confidence in the data behind the analysis and forecasts. In the preparation of replacement forecasts and programs it has been assumed the Council will continue to deliver disaster management services in the current manner and at the current levels.

This Plan is based on:

- Capital outlay for Disaster management assets;
- Current disaster management holdings

Further, this plan will need to be updated annually to reflect changes to disaster management inventory, values and disaster management practices.

Key assumptions made in this service management plan are:

- SMP is adopted and implemented
- Replacement strategy will be adopted and funded
- Funding priorities are based on bringing the disaster management asset replacement into line with the requirements of this SMP
- Existing maintenance funding levels will be maintained
- No sudden extensive changes in current disaster management practices
- Expected and adopted asset useful lives will be achieved

4.2 ASSET CLASS SUMMARY

The disaster management assets covered by this SMP are shown in Table 8. Replacement values are based on analysis undertaken in December 2017

TABLE 8. DISASTER MANAGEMENT ASSETS COVERED BY THIS PLAN

Asset Type	Units	Replacement Cost
Flood Early Warning System and Siren Grantham	1	100,000
Flood Cameras stand-alone	5	150,000
Rain/River Height ALERT/Camera stations	2	120,000
Flood Early Warning System	1	115,000
Rain / River Height ALERT stations	12	400,000
Rain ALERT stations	13	130,000
Sandbagging machines	2	60,000
Rain ALERT/Repeater stations	3	40,000
SES concrete sand bays	2	20,000
SES furniture & fittings	Numerous	50,000
SES computers & accessories	5	Information Services
SES Gatton storage structure (shipping	1	10,000
Fire trails	Numerous	NA

4.2.1 SUMMARY OF FUTURE OPERATIONS AND MAINTENANCE EXPENDITURES

Future operations and maintenance expenditure is shown in Figure 8. In addition, an allowance for a 2.5% per year increase in expenditure has been included to account for anticipated growth.

4.2.2 SUMMARY OF FUTURE RENEWAL AND REPLACEMENT EXPENDITURE

Projected future replacement expenditures are forecast to increase over time. The current adopted growth rate for the region (population) is less than 2% per year, which does not necessarily equate to a growth in required disaster management assets. Increased demand for disaster management assets will in the first instance be managed through effectiveness and optimisation reviews.

For Council to be sustainable it is assumed that the assets will be renewed in line with the assets consumption (depreciation). The Local Government Act 2009 and Regulations 2012 set a target of 90% of depreciation to be spent annually on asset renewal as one of the indicators of financial sustainability.

4.3 FINANCIAL RECOMMENDATIONS

One of Council's main objectives is to deliver agreed levels of service to its customers; disaster management is an enabler of this service provision. To do this Council must continue to renew its Disaster management assets and keep them in an operable state, continue to maintain the items to ensure reliability and reduce risk. Council continuously looks for more efficient means of delivering services to the community at the lowest possible unit cost. Through a focus on understanding Councils provision of services to the community, Disaster management has been undertaking reviews and rationalisation to support efficient and effective service delivery across the organisation and region.

The funding allocations set out in the currently adopted long term financial plan do not align well with the forecast and planned expenditure for disaster management. It is recommended that the long term financial plan be reviewed to meet the forecast expenditure shown in this report. Failure to do so will result in a likely loss of reliability and deteriorating financial position for the disaster management business with increasing costs and diminishing returns.

To maintain the disaster management assets at a sustainable level, Council has a number of options;

- Use the revenues generated by Disaster management to fund a planned replacement of disaster management items over time
- Continue reviewing utilisation and 'fit for purpose' to 'right size the disaster management assets' to assist with delivering affordable services
- Explore different disaster management provision models
- Increase the funding for essential maintenance on flood warning infrastructure to allow for outsourcing of field-based maintenance activities
 - This is an important element of the future maintenance regime of the flood warning assets. As these assets are critical to the flood warning network, maintenance carried out by the most professional means available is important to maintaining the required level of reliability. The most efficient way to achieve this is to engage contracted resources with the capability to carry out the work in a timely manner and to a high standard. Such capability does not currently exist within council.

5 PLAN IMPROVEMENT AND MONITORING

5.1 PERFORMANCE MEASURES

The effectiveness of the service management plan can be measured in the following ways:

- The degree to which the required cash flows identified in the development of the final Plan are incorporated into Council's long term financial plan and Community/Strategic Planning processes and documents,
- The degree to which the detailed replacement programs are implemented
- The degree to which the existing and projected service levels and service consequences (what we cannot do), risks and residual risks are incorporated into the Council's Strategic Plan and associated plans

5.2 IMPROVEMENT PLAN

A service management improvement plan generated from this service management plan is shown in Table 10-1.

TABLE 9 IMPROVEMENT PLAN

Task No	Task	Responsibility	Resources Required	Timeline
1.	Undertake an annual review and update of this SMP	Peter Hillcoat		
2.	Align the Long Term Financial Plan to the expenditure forecasts found in this SMP.	Tony Brett		
3.	Review disaster management data and confirm asset lives and condition.	Peter Hillcoat		
4.				

5.3 MONITORING AND REVIEW PROCEDURES

This Plan will be reviewed prior to budget preparation and amended to recognise any material changes in service levels and/or resources available to provide those services as a result of the budget decision process.

6 APPENDICES

Appendix A Capital Investment Table

Appendix B Capital Improvement Program

APPENDIX B CAPITAL IMPROVEMENT PROGRAM

Capital Improvement Program (Expansion Plan)															
Description	No. of Units as at 2017												10 Year Expansion Plan Total Capital	10 Year Expansion Plan Additional	
		2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Costs	Annual Costs	
Flood Early Warning Systems Woodlands Road inc. flashing lights, camera & river height gauge	1					120,000.00							130,000.00	250,000.00	2,500.00
Rain ALERT stations	13			20,000.00									20,000.00	40,000.00	5,000.00
Rain / River Height ALERT stations	16	+1 (Thornton)				25,000.00			25,000.00				25,000.00	75,000.00	5,000.00
Rain ALERT/Repeater stations	3						15,000.00							15,000.00	5,000.00
Rain/River Height ALERT/Camera stations x 3 - Narda Lagoon, Whiteway Rd, Thornton School Rd	3							60,000.00						60,000.00	5,000.00
Cameras stand alone x 5 Spring Bluff, Mulgowie (Creek view), Mulgowie School Road, Glenore Grove, Laidley	5	+1 (Laidley)	70,000.00										40,000.00	110,000.00	5,000.00
Software & Dashboard Upgrades			5,000.00	10,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	60,000.00	2,000.00
Local Disaster Coordination Centre Fitout					5,000.00						5,000.00			10,000.00	
														Total	Total
														\$620,000	29,500.00