



Asset - Asset Management STRATEGY

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LEGISLATION*

Asset - Asset Management Strategy

2012 to 2022

Adopted 3rd April 2012

Yarra City Council

TABLE OF CONTENTS

1. Introduction	1
1.1. Purpose	1
1.2. AM Strategy Review and Update	1
1.3. Recent AM Performance	1
1.4. Scope of this Strategy	2
2. Regulatory framework	3
3 Council’s Strategic Planning Framework	5
3.1 Asset Management Framework	6
3.2 Link to Council Plan Objectives	7
4 Council’s Vision for Asset Management	8
4.1 Continuously Improve Asset Knowledge.....	8
4.2 Integrate Strategic Service & Asset Management	9
4.3 Meet Service Delivery Needs of the Community	10
4.4 Improve Financial Sustainability	11
4.5 Improve Risk Mitigation Practices	11
4.6 Ensure Legislative Compliance	12
4.7 Improve Environmental Sustainability	12
5 Council’s Asset Portfolio	13
6 Understanding Current and Future Asset Needs	14
6.1 Services Supported by Council Assets	14
6.2 Council’s Operating Environment.....	15
7 Council’s Asset Management Practices	19
7.1 Information Systems.....	19
7.1.1 <i>Multiple Independent Systems</i>	20
7.1.2 <i>In-house systems - MASS and FORECASTER</i>	21
7.1.3 <i>MERIT – CUSTOMER Request System</i>	22
7.1.4 <i>Mobile Computing</i>	22
7.1.5 <i>Recent System Improvements – MATE Project</i>	22
7.1.6 <i>Recommended Improvement Actions</i>	24
7.2 Asset Data and Knowledge.....	25
7.2.1 <i>Inventory DATA</i>	27
7.2.2 <i>Condition and Valuation DATA</i>	27
7.2.3 <i>Performance/ Functionality KNOWLEDGE</i>	27
7.2.4 <i>Risk data & KNOWLEDGE</i>	28
7.2.5 <i>Environmental Sustainability DATA & KNOWLEDGE</i>	28
7.2.6 <i>Accessibility DATA & KNOWLEDGE</i>	29
7.2.7 <i>Recommended Improvement Actions</i>	29
7.3 Service & Asset Planning Practices	32

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	i

7.3.1	<i>Service Planning – Demand Forecasting</i>	33
7.3.2	<i>Asset Management Planning</i>	34
7.3.3	<i>Defining Service Levels that Meet Community Expectations</i>	34
7.3.4	<i>Capital Works Planning</i>	35
7.3.5	<i>Long Term Financial Planning (LTFP)</i>	35
7.3.6	<i>Recommended Improvement Actions</i>	36
7.4	AM Work Practices	39
7.4.1	<i>Asset HandOver (Transfer)</i>	39
7.4.2	<i>Maintenance Practices</i>	39
7.4.3	<i>Asset Rationalisation</i>	39
7.4.4	<i>Recommended Improvement Actions</i>	40
7.5	Organisational Context	40
7.5.1	<i>Asset Management Training and Awareness</i>	41
7.5.2	<i>Recommended Improvement Actions</i>	41
8	Implementation Plan	43

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	ii

List of Figures

Figure 1 – Yarra City Council - Strategic Planning Framework	5
Figure 2– Proposed Model for Integrated Service and Asset Management.....	10
Figure 3 – Council's Operating Environment.....	15

List of Tables

Table 1 – AM Supports Delivery of Council Plan Objectives	7
Table 2 – Current Asset Portfolio	13
Table 3 –Services Supported by Council Assets	14
Table 4 – Sample Factors Affecting Demand.....	16
Table 5 – Information Management Systems.....	20
Table 6 – Current Status - Asset Data & Knowledge	26
Table 7 – Implementation Plan	44

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	iii

Glossary

The following terms are used in this document:

Annual Plan	A document produced annually by an organisation to inform stakeholders of its objectives, intended activities, performance, income and expenditure required for a period of one financial year.
Asset	An item that has potential value to an organisation such as plant, machinery, building, etc.
Asset Category	Grouping of like assets, e.g. all unsealed roads.
Asset Class	Grouping of like asset categories, e.g. all pavement, seal, kerb and gutter are all part of the asset class of roads
Asset Condition Assessment	The inspection, assessment, measurement and interpretation of the resultant data to indicate the condition of a specific component so as to determine the need for some preventive or remedial action.
Asset Management	The systematic and coordinated activities and practices of an organisation to optimally and sustainably deliver on its objectives through the cost-effective lifecycle management of assets.
Asset Management Framework	The overarching asset management hierarchy including the asset management policy, objectives, strategy and the asset management plan.
Asset Management Plan	Long-term plan (usually 10-20 years or more for infrastructure assets) that outline the asset activities and programmes for each service area and resources applied to provide a defined level of service in the most cost-effective way.
Asset Management Strategy	The high level long-term approach to asset management including asset management action plans and objectives for managing the assets.
Asset Register	A record of asset information, typically held in a spreadsheet, database or software system, including asset attribute data such as quantity, type and construction cost.
Best Practice “Environment”	Best practice is defined as the objectives set out in Councils ESD Buildings Policy and the WSUD policy. It also refers to the principles and practices described in Councils Sustainable Design Assessment in the Planning Process (SDAPP) program.
Best Value	The State Government of Victoria requires all Councils within Victoria to meet the requirements of Best Value principles specified in the Local Government Act 1989. Under this legislation, Councils are required to assess service delivery in terms of: <ul style="list-style-type: none"> • Quality and cost standards • Responsiveness to the needs of the community • Accessibility • Retention of local employment • Continuous improvement in how the service is delivered.

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	iv

Confidence Level	A measure of the certainty, reliability and trust in information that lies behind a decision.
Current Replacement Cost	The cost the entity would incur to acquire the asset on the reporting date. The cost is measured by reference to the lowest cost at which the gross future economic benefits could be obtained in the normal course of business or the minimum it would cost, to replace the existing asset with a new modern equivalent asset (not a second hand one) with the same economic benefits (gross service potential) allowing for any differences in the quantity and quality of output and in operating costs.
Economic Life	The period from the acquisition of an asset to the time when the asset, while physically able to provide a service, ceases to be the lowest cost alternative to satisfy a particular level of service. The economic life is at the maximum when equal to the physical life; however obsolescence will often ensure that the economic life is less than the physical life.
Funding Model	<p>A funding strategy which addresses:</p> <ul style="list-style-type: none"> • The need for funds; • The peaks and troughs in this need; and • How the funds will be sourced. <p>Life cycle analysis should be the basis of the funding model. The funding model adopted by Council decides how it determines:</p> <ul style="list-style-type: none"> • The level of funds year by year; • The source of those funds; and • The use or allocation of those funds to recurrent/ capital, to infrastructure and to other assets and other services.
Geographic Information System	Software which provides a means of spatially viewing, searching, manipulating and analysing an electronic database.
Infrastructure Assets	Stationary systems forming a network and serving whole communities, where the system as a whole is intended to be maintained indefinitely at a particular level of service potential by the continuing replacement and refurbishment of its components. The network may include normally recognised ordinary assets as components.
Level of Service	Levels of service statements describe the outputs or objectives an organisation or activity intends to deliver to customers.
Lifecycle Cost	The total cost of an asset throughout its life including planning, design, construction, acquisition, operation, maintenance, rehabilitation and disposal costs.
Maintenance	All actions necessary for retaining an asset as near as practicable to its original condition, but excluding rehabilitation or renewal. Maintenance does not increase the service potential of the asset or keep it in its original condition; it slows down deterioration and delays when rehabilitation or replacement is necessary.
New Works	Works which result in new assets being created to meet new

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	v

	service demands and do not have any element of expansion or upgrade of existing assets.
Rehabilitation (Refurbishment)	Works to rebuild or replace parts of components of an asset, to restore it to a required functional condition and extend its life, which may incorporate some modification. Generally involves repairing the asset to deliver its original level of service (i.e. heavy patching of roads, slip-lining of sewer mains, etc.) without resorting to significant upgrading or renewal, using available techniques and standards.
Remaining Life	The time remaining until an asset ceases to provide the required service level or economic usefulness.
Renewal	Works to replace an existing asset with asset of equivalent capacity or performance capability.
Replacement	The complete replacement of an asset that has reached the end of its life, so as to provide a similar or agreed alternative, level of service.
Return on Assets	An economic profitability measure of an organisation relative to its total assets. It measures how efficiently an organisation uses its assets.
Risk Management	Coordinated activities to direct and control an organisation with regard to risk.
Service Category	Grouping of like primary services (e.g. drainage/flood protection, environmental protection/waterways, waste management and waste minimisation/recycling are grouped as Environmental Services).
Service Delivery Model	A conceptual tool used to demonstrate the linkages and inter-dependencies between demand, service and asset management, and to help identify critical supporting functions that facilitate integration (e.g. IT, HR, Governance, etc).
Service Potential	The total future service capacity of an asset. It is normally determined by reference to the operating capacity and economic life of an asset.
Sustainability	Sustainability is the capacity to endure; in the context of asset management it is about meeting the needs of the future by balancing social, economic, cultural and environmental outcomes or needs when making decisions today.
Upgrade	Work which enhances an existing asset to provide a higher level of service or expenditure that will increase the life of the asset beyond that which it had originally.

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	vi

Abbreviations

The following abbreviations are used in this document:

AM	Asset Management
AMP	Asset Management Plan
DPCD	Department of Planning and Community Development
GIS	Geographic Information System
IIMM	International Infrastructure Management Manual
IPWEA	Institute of Public Works Engineering Australia
LTFP	Long Term Financial Plan
MASS	Municipal Assets Support System
MATE	Managing Assets Together Effectively
MAV	Municipal Association of Victoria
NAMAF	National Asset Management Assessment Framework
SDM	Service Delivery Model
SIN	Sustainable Infrastructure Network
T1_W&A	TechnologyOne - Works and Assets

Management Sponsors

CEO	Chief Executive Officer
CIO	Chief Information Officer
EMG	Executive Manager Governance
MADS	Manager Aged & Disability Services
MB&P	Manager Building & Properties
MCLS	Manager Cultural & Library Services
MCPA	Manager Community Planning & Advocacy
MEO	Manager Engineering Operations
MF	Manager Finance
MFYCS	Manager Family, Youth & Children's Services
MISP	Manager Infrastructure & Special Projects
MLS	Manager Leisure Services
MROS	Manager Recreation & Open Space
MSAM	Manager Sustainable Asset Management
MSEP	Manager Strategic & Economic Planning
MSP	Manager Statutory Planning
MSTE	Manager Strategic Transport & Environment
SMT	Senior Management Team

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	vii

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Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	viii

1. INTRODUCTION

1.1. PURPOSE

The purpose of this Asset Management (AM) Strategy is to support the implementation of Council's AM Policy and guide continuous improvement in Council's asset management practices.

This Strategy has been developed with the objective of ensuring capital and operating investment is used effectively and in the best interests of the community. It aims to assist Council to progress through the steps of developing more meaningful AM Plans and establishing a framework for the ongoing enhancement of AM practices.

Adoption of this Strategy, and subsequent support for the implementation of its recommendations, is expected to improve Council's asset management performance and enable Council to continue to deliver services that meet community needs in a financially sustainable manner.

1.2. AM STRATEGY REVIEW AND UPDATE

The Manager Sustainable Asset Management shall review and update this document, every five (5) years, following review and adoption of the AM Policy.

The Manager Sustainable Asset Management will also monitor implementation of the improvement recommendations, and report progress to the Executive and Council every 12 months. The annual review shall occur prior to the end of each calendar year, in line with Council's business planning timeline, to enable key initiatives to be incorporated into the Annual Plan.

1.3. RECENT AM PERFORMANCE

Council has had an AM Policy and Strategy in place since 2004. Council adopted the latest revision of the Policy in September 2011. First generation AM Plans have been written and are now due for review and update.

Council has been a participant in the Municipal Association of Victoria (MAV) STEP program since its inception in 2003. The program was established to support the improvement of asset management practices across Victoria. Since 2010, the MAV has used the National Asset Management Assessment Framework (NAMAF) when assessing Council's asset management performance. The NAMAF requires Council's to have an AM Strategy that has the following features:

- Is linked to Council's AM Policy and integrated into Council's strategic long term planning and annual budgeting processes
- Shows how the asset portfolio can meet service delivery needs of the community and defines the future vision for asset management practices within Council

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	1

- Documents the current status of asset management practices (processes, asset data, and information systems) within Council, and documents actions that Council must take to implement its AM Policy including resource requirements, timeframes and accountabilities.

The most recent independent review of Council's AM Strategy was conducted in October 2010. The Strategy was assessed as *2-Moderate* on a five-point scale, which ranges from *0 - Not Started* to *4 – Complete*. Given that there is an expectation that Council's performance in such reviews may affect future access to Federal Government funding, it is considered important that Council adopt this Strategy, which has been developed to meet the NAMA requirements; and achieve a rating of *4 – Complete*.

1.4. SCOPE OF THIS STRATEGY

This document is an internally focused 'enabling' strategy that has been designed to work in conjunction with Council's other strategies and plans. It is focused on enhancing asset management capability to support the delivery of services to the community in accordance with the direction set in the City of Yarra Council Plan (2009-13) and future Council plans.

It is an overarching document that sets the strategic direction for the preparation of more detailed AM Plans. This AM Strategy supports delivery of Council's AM Policy and outlines the following:

- Legislative controls
- Council's strategic planning framework
- Council's asset management vision and objectives
- Council's current portfolio of assets
- Factors that influence current and forecasted asset needs
- An assessment of the current status of Council's:
 - Information systems
 - Asset data and knowledge
 - Service and asset management practices
 - Asset management work practices
 - Organisation context

Recommendations for improvements and an implementation plan are also included.

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	2

2. REGULATORY FRAMEWORK

Council's approach to the management of its asset portfolio is required to comply with all relevant legislations. In this section, some relevant aspects of the following standards and Acts are highlighted:

- Local Government Act (1989)
- Planning & Environment Act (1987)
- Disability Act (2006)
- Occupational Health & Safety Act (1985)
- Road Management Act (2004)
- Australian Accounting Standards

Local Government Act 1989

Local Government in Victoria is administered under the Local Government Act 1989, which provides a framework for the establishment and operation of local councils. It includes provisions that cover all aspects of local government responsibility including:

- Council governance requirements, including codes of conduct
- Council decision making, including records of meetings, confidentiality and limits on decisions during election periods
- Preparation of Council Plans, budgets and annual reports
- Councils powers to make and enforce local laws

Section 3E of the Act sets out the functions of Council which include:

3E (c) Providing and maintaining community infrastructure in the municipal district

Planning & Environment Act 1987

This Act sets the framework for planning the use, development and protection of land in the State of Victoria.

Disability Act 2006

This Act, which has been recently updated, requires Council to ensure that the services it provides do not discriminate against any person or group of persons. Where existing infrastructure does not conform to current standards, then Council may produce an action plan detailing the actions it intends to undertake to ensure that assets comply with universal access provisions and the relevant codes of practice.

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	3

Occupational Health & Safety Act 1985

This Act promotes improved standards for occupational health, safety and welfare. It places obligations on employers to provide a safe working environment for their employees and to ensure that they are adequately trained and that the plant and equipment they use is maintained in a manner that is safe and fit for purpose.

Road Management Act 2004

The Road Management Act sets out the framework and principles for the management of the public road network. Under this Act, Council is considered a responsible and/or coordinating road authority with specific road management obligations. The Act specifies the rights and duties of road users and the roles and functions of road authorities. It describes the purpose and scope of Road Management Plans.

Accounting Standards

The following Australian Accounting Regulations apply to Local Government and are relevant for the financial reporting of Council assets:

- AASB 116 Property, Plant and Equipment
- AAS 27 Financial reporting by Local Government (note this standard is largely superseded by the other standards)
- AAS 136 Impairment of Assets
- AAS 137 Provisions, Contingent Liabilities and Contingent Assets.

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	4

3 COUNCIL'S STRATEGIC PLANNING FRAMEWORK

Council's strategic planning framework and the role played by asset management is illustrated in the figure below.

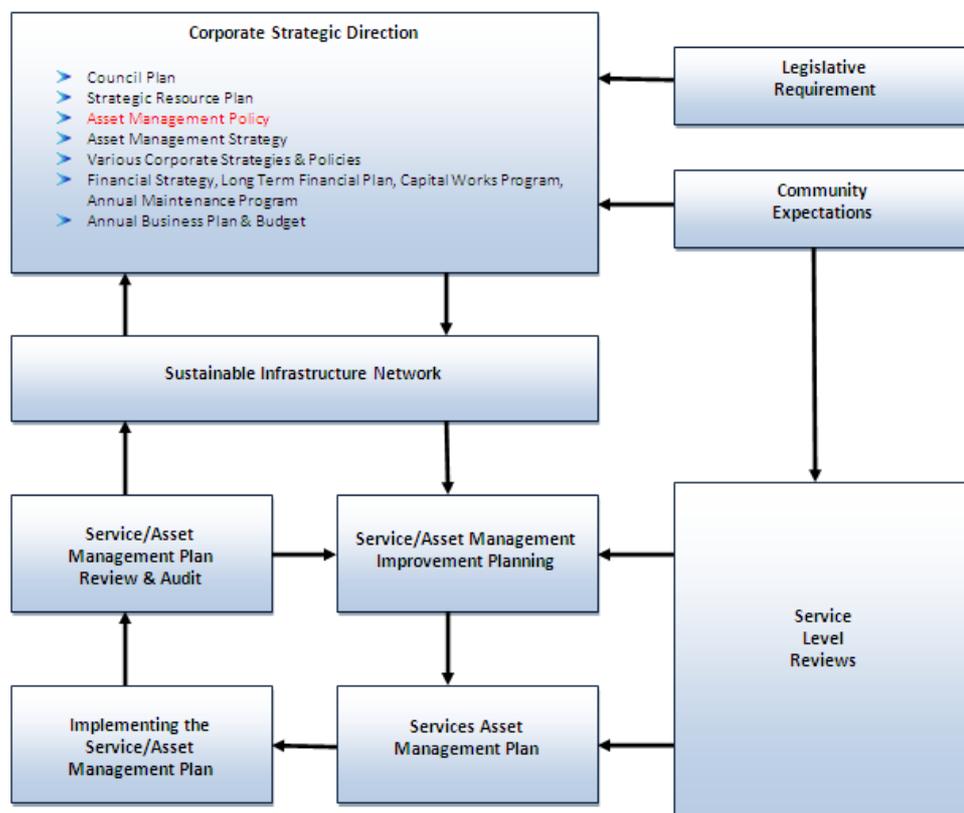


Figure 1 – Yarra City Council - Strategic Planning Framework

Council's strategic planning framework is guided by legislative requirements but is primarily about the implementation of good management practice. The framework is also informed by community expectations.

The City of Yarra Council Plan (2009 – 2013) guides Council's overall strategic direction. It demonstrates how Council intends to balance competing priorities while delivering desired community benefits. The Council Plan acknowledges that strategic asset management is essential for effective delivery of community services in a financially responsible manner.

Council's Strategic Resource Plan and a number of other high-level strategic documents, including Council's AM Policy and this Strategy, support the delivery of the strategic objectives set out in the Council Plan.

Delivery of the AM Policy and Strategy is supported by a suite of AM Plans and Operational Plans. Updated AM Plans are expected to incorporate service level planning outcomes and to include predictive financial modelling that will inform Council's future Long Term Financial Plan and budgets. It must be noted however

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	5

that, Council's ability to update each AM Plan, undertake timely service reviews and implement the recommendations of this Strategy is dependent on available funding.

A cross-functional team, the Sustainable Infrastructure Network (SIN), chaired by the Manager Sustainable Asset Management, currently oversees Council's asset management activities. It is expected that when this Strategy is adopted, the SIN terms of reference will be revised in order to ensure that SIN can take a more active role in supporting the implementation of all improvement recommendations.

3.1 ASSET MANAGEMENT FRAMEWORK

The strategic planning framework illustrated in Figure 1, above, shows the hierarchy of asset management documents:

- AM Policy
- AM Strategy
- AM Plans
- Operational Plans (for the management of assets to support service delivery)

Council's AM Policy provides the overall direction to guide the sustainable management of Council's asset portfolio as a platform for service delivery. Together with this Strategy, it shows how the City of Yarra intends to improve asset management across the organisation over the next ten (10) years.

First generation AM Plans have been developed for the following asset categories:

- Road
- Building
- Fleet
- Open Space
- Information Systems
- Arts & Culture

The current AM Plans document Council's asset knowledge and technical service levels with a focus on current maintenance and renewal programs based on current budgets. The next revision of each of these AM Plans will be more service focused. They will acknowledge the integral relationship between service and asset planning.

The revised AM Plans, for each major asset group, will:

- Interpret service planning outcomes
- Document future demand for assets
- Document current and target service levels.

The AM Plans will also provide detailed direction for the management of each asset category including condition audit results and financial forecasts that will inform future asset renewal and maintenance funding allocations that must be provided in the Long Term Financial Plan in order to ensure Council assets remain safe, functional and acceptable to the community.

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	6

The revised suite of AM Plans will promote sustainable creation of new assets and asset upgrades by emphasizing the need to evaluate the lifecycle costs of all asset decisions to ensure that future budgets accommodate maintenance and renewal needs without imposing unsustainable liabilities on future generations.

Managers responsible for each of the asset groups will progressively develop Operational Plans. These Plans will document the approach by which the operations and maintenance outcomes set out in the AM Plans will be delivered.

3.2 LINK TO COUNCIL PLAN OBJECTIVES

The table below demonstrates how implementation of this Strategy and subsequent AM Plans is expected to support delivery of the Council Plan objectives:

Table 1 – AM Supports Delivery of Council Plan Objectives

Council Plan Strategic Objectives	AM Practices
Making Yarra More Liveable	Establishing and providing appropriate quality service levels that are affordable, without compromising long term sustainability of assets through on-going engagement and consultation with the community.
Ensuring a Sustainable Yarra	Incorporating Environmentally Sustainable Design principles in life cycle asset management. Ensuring asset investment decisions include consideration of lifecycle costs and community benefits.
Serving Yarra's Community	Delivering safe and reliable services by understanding asset condition and performance and applying risk management principles. Safeguarding Council assets (including physical assets and employees). Implementing appropriate asset management improvement strategies and appropriate financial treatment of those assets.
Supporting a Diverse and Dynamic Yarra	Incorporating an understanding of future service demand into advanced asset planning, asset creation, renewal, upgrade and disposal strategies.
Building Council's Capacity and Performance	Developing asset management plans for major asset classes with continual improvement and action plans. Ensuring resources and operational capabilities are identified and responsibility for asset management is allocated and understood. Enhance asset management awareness via in-house and other staff training mechanisms.

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	7

4 COUNCIL'S VISION FOR ASSET MANAGEMENT

Council's vision for asset management is encapsulated in the following statement:

"Provide a robust asset portfolio that supports the provision of best value services, which balance the needs of the community, environment and economic development for current and future generations."

Council's Executive has also set a vision for the organisation to be: *"an organisation committed to change through an energised, cohesive team of professionals, recognised for our leadership, innovation and service."*

Asset management goals are outlined in this section under the following headings:

- Continuously Improve Asset Knowledge
- Integrate Strategic Service & Asset Management
- Meet Service Delivery Needs of the Community
- Improve Financial Sustainability
- Improve Risk Management Practices
- Ensure Legislative Compliance
- Improve Environmental Sustainability

It is expected that these goals will be achieved via:

- Delivery of the recommended improvement actions outlined in this AM Strategy
- Ongoing revision and implementation of Council's AM Plans
- Continuous adjustment and improvement of relevant work practices

4.1 CONTINUOUSLY IMPROVE ASSET KNOWLEDGE

- A centralised register of all Council assets will be contained in the TechnologyOne Works & Assets system. This register will become the central repository of all Council asset information for use by all Council staff.
- Financial and technical asset data currently stored in disparate systems and spreadsheets will be reconciled and incorporated into the centralised TechnologyOne Works & Assets register.
- Council's Asset Register will include accurate data and have reporting functionality to facilitate asset management decisions. Data to be stored in the register will include asset quantities, condition, economic life and remaining life estimates and financial valuations.
- Council's Maintenance Management Philosophy will be embedded into the TechnologyOne Works & Assets system and will support delivery of reactive and routine maintenance activities and asset inspections and provide

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	8

accurate reports on responsiveness to community requests and compliance with documented service standards and specifications.

- Council will invest in regular asset condition audits and collate data to assist in making informed asset renewal, rationalisation and maintenance decisions.
- Council will aim to continuously improve all its asset data, including financial valuations.
- Officers throughout the organisation will be responsible for maintaining the integrity of the centralised asset data stored in Councils Asset Register.

4.2 INTEGRATE STRATEGIC SERVICE & ASSET MANAGEMENT

- Council will continue to invest in enhancing its service planning knowledge, skills and operational practices with a commitment to a continuous improvement approach.
- Guided by the vision, and strategic objectives defined in the Council Plan, Council's service planning work will investigate current and future community needs. This service level information, together with asset condition audit results will inform future capital investment in new and upgraded assets, asset renewals and disposals.
- Recognising the importance of integrated strategic service and asset management, Council will work with internal stakeholders via the SIN, and through the adoption of appropriate project management methodology, to develop a model to guide future service and asset management decision-making. A model, shown in Figure 2, which was recently used to facilitate a review of Council's Infrastructure Services Division, will be referenced regarding the definition of Council's core services and the service and asset lifecycle management activities across the organisation.
- The service delivery model will adopt a 'whole-of-organisation' approach and take a life cycle perspective of both service delivery and asset management.
- Management of both the service and asset lifecycles, shall be integrated and aim to be undertaken in accordance with the agreed service delivery model.
- Service and Asset Managers' roles and responsibilities will be assigned for each service category and asset class. The adopted model is expected to draw on industry best practice information provided by the MAV, and also from the service delivery model shown in Figure 2.
- Service Level Agreements between Service and Asset Managers will provide sufficient detail to ensure expectations can be delivered and performance can be measured.

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	9

Figure 2– Proposed Model for Integrated Service and Asset Management

4.3 MEET SERVICE DELIVERY NEEDS OF THE COMMUNITY

- Council will continue to monitor community satisfaction regarding Council's asset management performance to support service delivery.
- Council will commit to understanding community expectations regarding the management of Council's assets.
- Service Managers will use their understanding of community needs and expectations to document community service levels that define the asset functionality requirements necessary to support each service. Assumptions will be tested with the community.
- Asset Managers will translate community service levels into clearly documented and measurable technical levels of service (asset performance targets) that define what Council must do to deliver the desired customer service levels in a cost-effective sustainable manner, consistent with Council's strategic direction and within financial and other practical constraints.

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	10

4.4 IMPROVE FINANCIAL SUSTAINABILITY

- Financial models, developed within each AM Plan, will predict funding requirements to ensure long-term sustainability. These financial models will, in turn, inform Council's Long Term Financial Plan and annual budget decisions.
- Council will aim, in an appropriate and timely manner, to address any backlog of renewal works identified in Council's AM Plans.
- Council will consider prioritisation of funding for legal compliance, renewal, maintenance and operation of existing assets in preference to financing new works or asset upgrades.
- Decisions to provide new services or assets to the community shall be based on business case justifications that take into account both the initial expenditure and also the ongoing lifecycle costs required to ensure that the services and assets will continue to perform at the required service level throughout their expected life.
- Evaluation of outcomes will be against objectives as stated in the business case.
- When approving a new or upgrade capital works project, Council shall commit to providing appropriate lifecycle funding for renewal, maintenance and operation within the relevant capital works and operational budgets.
- Where possible, Council may seek to support the funding of new assets, asset upgrades or asset renewals through the disposal of identified surplus or obsolete assets.

4.5 IMPROVE RISK MITIGATION PRACTICES

- Council will maintain a corporate risk register including risks associated known & unknown sources such as natural disasters and climate change.
- Council shall establish and deliver maintenance and renewal service standards that preserve assets, mitigate risk and meet the desired service outcomes.
- Council will not accept the transfer of third party assets, unless minimum acceptable quality standards are met.
- Council shall proactively inspect and protect its assets.
- Council shall self-audit its compliance with relevant regulations and address non-compliances in a timely manner.
- Council shall insure all assets for loss, property damage and public indemnity.

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	11

- In the event that an asset can no longer be maintained in a safe condition, it shall be removed from service and secured to ensure that unauthorised access is prevented.

4.6 ENSURE LEGISLATIVE COMPLIANCE

- Council will manage its asset inventory in a manner that ensures assets are compliant with all relevant legislations and regulations
- Council shall be responsive to changes in legislations and regulations and provide appropriate funding to ensure compliance occurs in a timely manner.
- Council shall self-audit its compliance with relevant regulations and address non-compliances in a timely manner.

4.7 IMPROVE ENVIRONMENTAL SUSTAINABILITY

- Council aims to meet “best practice” environmental sustainability standards and will seek to ensure that Council assets have a minimal impact on the environment.
- Energy and water efficient assets shall be incorporated into asset renewal and upgrade projects wherever possible.
- “Best Practice” principles shall be incorporated to meet the four main environmental sustainability targets listed in the Council’s Environmentally Sustainable Design (ESD) Policy for buildings:
 - Reduce water consumption in Council operations by 40% (133ML) by 2013 (from 2000 levels).
 - Become Carbon Neutral (produce zero net emissions) by 2012, a reduction of approx 16,820 tonnes.
 - Use 30% less energy by 2012 (measured as a reduction in equivalent greenhouse emissions) below 2000/2001 baseline.
 - Generate 10% of its energy needs from renewable (and low carbon) local energy sources by 2012.

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	12

5 COUNCIL'S ASSET PORTFOLIO

Underpinning the provision of Council's services is a significant asset base that includes local roads, paths, drains, buildings, parks, trees, art and cultural collections. Council is responsible for the care and management of this broad range of assets for the benefit of current and future communities.

The table below provides a summary of Council's asset portfolio which was recently valued at \$1.71 billion (City of Yarra Annual Report 2010-11).

Table 2 – Current Asset Portfolio

Asset Class ^{##}	Quantity	Current Replacement Cost (\$ '000)*
Road Pavement	225 km	\$ 316,127
Lanes	85 km	\$ 77,648
Bridges	7 No	\$ 2,757
Buildings	189 No	\$ 235,447
Drainage		\$ 97,372
- Pipes	170 km	
- Pits	9050 No	
Footpaths	491 km	\$ 114,977
Kerb & Channel	410 km	\$ 108,924
Land	140 parcels	\$ 676,183
Playground Equipment	37 sites	\$ 1,107
Irrigation systems	59 systems	\$ 1,546
Trees	14,620 No	\$ 7,262
Signs [#]	26243 No	\$ 2,437
Lighting [#]	7700 No	\$ 3,122
Street Furniture	314 items	\$ 13,874
Parks Furniture	538 items	\$ 7,112
Heritage assets	370 No	\$ 1,772
Furniture & White-goods	Collection	\$ 21,573
Plant & Machinery	216 No	\$ 9,216
Fences	27283 km	\$ 1,829
Mobile garbage bins /recycling	Collection	\$ 2,262
Library books /AV equipment	Collection	\$ 3,999
Total Valuation		\$ 1,709,778

^{##} Council owned /managed assets

*Replacement Cost based on Council Annual Report 2010 – 2011. Exclude works in progress.

[#]These assets are not included in Council's Annual Report

For a number of asset types, the quantities are currently unknown, or difficult to determine because Council's asset data is currently stored in a range of disconnected databases and information systems.

Future asset audits are required to improve Council's knowledge regarding the asset portfolio. Future updates of each AM Plan will include the confirmation of all existing asset data including quantities and valuations.

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	13

6 UNDERSTANDING CURRENT AND FUTURE ASSET NEEDS

Council's asset portfolio exists to support a broad range of services that the community needs and expects. In order to determine current and future community needs for Council assets, it is important to develop a good understanding of the following:

- Services that Council assets are expected to support
- Factors in Council's operating environment that influence community expectations and demand for services and assets

In this section, some services that Council assets currently support are identified. A brief summary of factors that can be expected to influence community demand for services is also presented to indicate the type of analysis required when forecasting future asset needs. Council's current approach to establishing asset requirements is discussed later in section 7.3

6.1 SERVICES SUPPORTED BY COUNCIL ASSETS

The following table highlights the types of services that Council assets support. This list has been developed by the Sustainable Asset Management Branch, and is intended to illustrate the relationship between Council assets and services. It is recommended that this list be refined via consultation with internal stakeholders.

Table 3 –Services Supported by Council Assets

Asset Category	Services Supported by Council Assets (Examples)
Buildings (Incl. the surrounding land and site assets such as pathways, vegetation, car parks etc.)	Children & Family Support Community Meeting Space Community Education Food Distribution Heritage Protection Performing and Visual Arts Residential & Respite Care Social Activity Support Structured Sport Unstructured Recreation Youth Support
Fleet	All Council Services
Roads /Bike Paths	Sustainable Transport Passive Recreation Connectivity

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	14

Asset Category	Services Supported by Council Assets (Examples)
Open Space	Active Recreation Community Meeting Space Conservation Heritage Protection Flood Mitigation and Protection Passive Recreation Social Activity Support Water Quality Management
Pathways	Sustainable Transport Passive Recreation Connectivity
Stormwater	Water Quality Management Flood Mitigation and Protection
Information Systems	All Council Services

6.2 COUNCIL'S OPERATING ENVIRONMENT

It is Council's responsibility to manage our invaluable community assets adequately to ensure sustainable service delivery. Good governance requires that Council understands the environment in which it provides the services.

Figure 3 illustrates the key aspects of Council's operating environment. Each aspect of that environment impacts on the demand for services and therefore affects the demand for Council assets.



Figure 3 – Council's Operating Environment

Table 4, on the following page, highlights how some factors are expected to affect demand for services and assets. The information presented here is not intended to be definitive. It is simply provided to highlight how various factors can impact on

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	15

Council's asset management obligations. Each AM Plan is expected to consider relevant demand factors in more detail in order to forecast future asset needs.

Table 4 – Sample Factors Affecting Demand

Demand Factor	Expected Change	Impact on Asset Management (Examples)
NATURAL ENVIRONMENT		
Climate Change	<p>More frequent and intense storm events.</p> <p>Higher levels of solar radiation.</p> <p>Increasing environmental awareness.</p> <p><u>Peak Oil</u></p> <p><u>Adaptation.</u></p>	<p>Existing drainage systems may not cope with changed rainfall patterns resulting in a need for upgrades.</p> <p>Increased frequency of hail and storm damage requires emergency response, and impacts asset useability.</p> <p>More rapid deterioration of assets exposed to the weather (e.g. increased rate of road surface cracking) requires adjustment to maintenance and renewal work practices.</p> <p>Increased capital works budget to meet more frequent renewals to address asset deterioration.</p> <p>Need to incorporate Environmentally Sustainable Design principles throughout life cycle management activities for all assets.</p>
BUILT ENVIRONMENT		
Ageing Assets	<p>Old assets are more likely to fail and may not meet current and future community needs.</p>	<p>Increased asset preservation programmes to sustain the current level of service.</p> <p>Maintenance budgets need to account for the increased likelihood of asset failure.</p> <p>Renewal budgets need to be adequate to replace assets that are unsafe or not functioning appropriately.</p>

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	16

Demand Factor	Expected Change	Impact on Asset Management (Examples)
Increasing Dwelling Density	More residents and businesses in the municipality, resulting in changing demand for the use of Council services and facilities.	Buildings may need to be more flexible to accommodate a broader range of different services. Scarce resources such as public open spaces and the road space need to be able to support the needs of current and future populations.
Technology Changes	Improved materials and construction standards.	Opportunity to introduce new technologies to improve sustainability (e.g. water sensitive urban design (WSUD) features).
LEGAL & POLITICAL ENVIRONMENT		
NAMAF (regulated environment)	Future government funding may be tied to Council's AM capabilities.	Require higher level of staff skills, tools and processes for asset management.
Standards compliance	More stringent requirements for local government. Shift in Commonwealth and State policy on accountability and compliance. Increasing exposure to litigation.	Potential for increased demand on capital and operating budgets to meet compliance obligations. Improved work practices and trained resources required to undertake appropriate condition and risk audits.
Regulations	Changes in regulatory framework (e.g. emergency management / child care).	Significant changes in asset demand need to be determined and addressed over short periods of time.
Intergovernmental relationships	Continued cost shifting between Commonwealth, State and Local governments. Shifting the tax burden and removing inefficient State and local tax arrangements.	Potential change in demands on capital and operating budgets to meet community expectations for services that may no longer be provided by other levels of government.

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	17

SOCIAL & CULTURAL ENVIRONMENT		
Demographics	Increasing cultural and linguistic diversity. Ageing population. Population growth (increase of 1.4% each year).	Services and buildings need to be accessible to all groups and ages. Increased demand for new works, upgrades and asset expansions.
ECONOMIC ENVIRONMENT		
Budget Provision	Limited funds available to respond to competing demands	Ensure that optimised decision-making process is in place, including transparent processes for prioritisation and justification of asset expenditure. Affects the capacity to prioritise capital works program to meet current and future service demand through community participation in decision making.
Return on asset	More transparency and accountability required in business decision-making.	May need to consider asset disposal /rationalisation to fund alternative assets and services

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	18

7 COUNCIL'S ASSET MANAGEMENT PRACTICES

In this section of the Strategy the current status of Council's asset management practices is reviewed in order to identify key gaps and opportunities for improvement.

Consistent with the National Asset Management Assessment Framework (NAMAF) audit approach and that recommended in the IPWEA International Infrastructure Management Manual (IIMM), the following aspects of Council's asset management status are considered:

- Information Systems
- Asset Data and Knowledge
- Service and Asset Management Practices
- Asset Management Work Practices
- Organisational Context

7.1 INFORMATION SYSTEMS

Council recently embarked on a process to consolidate the various information systems used to support asset management in order to improve the quality and integration of its systems.

Each of the following features describes the current status and is discussed in more detail below.

- Council does not have a dedicated centralised asset management information system that holds all asset information required to support Council's day-to-day asset management activities and financial reporting needs.
- Council relies on the custom-built information systems Municipal Asset Support System (MASS) and Forecaster for storage of asset inventory, capital works planning and monitoring.
- Council has implemented a customer request system (MERIT) to record Council's responses to customer requests and to act as a proxy maintenance management system for some services.
- Improving the quality and integration of Council's asset management information systems is the focus of recent improvements underway via the MATE project, which was established with the objective to "Manage Assets Together Effectively."
- Officers responsible for asset inspections and maintenance activities do not have access to mobile computing systems or mobile geospatial information.

A number of recommendations are proposed to build on improvement actions that are currently underway via the MATE Project.

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	19

7.1.1 MULTIPLE INDEPENDENT SYSTEMS

In the absence of a centralised integrated asset management information system, Council utilises a number of systems as indicated in the table below.

The multiplicity of independent systems makes data integrity management and real-time reporting time-consuming and somewhat challenging.

Table 5 – Information Management Systems

Information System	Description	Assets
Corporate Information Systems		
Computron	Finance System	All assets
Integrgraph	Geographic Information System (GIS)	All Council assets to varying degrees of accuracy Existing geospatial data is often incomplete or unreliable
Interplan	Corporate Planning Module Corporate Risk Management System	Annual Plan Reporting Corporate and Strategic Risks
MERIT	Customer request system	Not asset specific
Sharepoint	Facilities booking	Civic /communities facilities
TRIM	Document Management System	Not asset specific
TechnologyOne – Property	Property Valuation	Buildings
TechnologyOne - Works & Assets	Asset register and a maintenance management system (MMS) linked to GIS and Computron (Note that the existing MMS is currently being redeveloped)	Fleet Buildings
Infrastructure Services - Custom-Built MS Access Database Systems		
Forecaster	Capital work programming tool	Capital works programs for all major infrastructure asset groups Also contains Council's buildings asset register

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	20

Municipal Asset Support System (MASS)	Asset register that includes asset condition data System also includes a Plant & Equipment Management System	Asset register for all major infrastructure asset groups excluding buildings and open space assets
Info Park	Open space asset register and maintenance management system This system is currently being replaced by TechnologyOne – Works & Assets	Open space assets
Other Systems		
Spreadsheets	Purpose built spreadsheets are used to maintain data such as: - Property leasing - Recreation Facilities Bookings - Art Collection	Various assets

The Infrastructure Services Division has established asset data collection, management and reporting systems relevant for the assets it is responsible for. Each Branch within the Division uses a variety of information systems to meet its individual needs. Implementation of the MATE project is seeking to address this issue.

From a financial reporting perspective, the core data used to develop Council's financial reports should be the same as that used for other asset management tasks. At present, not all of Council's asset-related financial data is linked. There is therefore no clear audit trail, making it difficult to track changes made to individual assets.

7.1.2 IN-HOUSE SYSTEMS - MASS AND FORECASTER

The Municipal Asset Support System (MASS) currently acts as the default asset register and condition assessment system for most asset classes, excluding buildings (currently recorded in Forecaster and TechnologyOne- Works & Assets).

With the exception of some basic condition/risk and functionality assessment capabilities in MASS and Forecaster, Council does not have a reliable information system to support strategic asset planning functions, such as modelling of asset deterioration rates, life cycle costing, optimal decision making in capital investment and maintenance, and scenario planning.

MASS and Forecaster have been developed in-house and are stand-alone systems. Ongoing reliability of these systems is dependent on one Council Officer. Reliance on these systems therefore has inherent risks for the organisation. In order to address this risk Council is investing in an alternative integrated system, TechnologyOne Works & Assets (T1_W&A), linked to the finance system (Computron) under the direction of the MATE project.

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	21

7.1.3 MERIT – CUSTOMER REQUEST SYSTEM

Community service requests or requests for information received via phone calls, emails or letters are generally logged into Council's Customers Request System (MERIT). Many other local government authorities also use MERIT. It is considered an effective tool with functionality to manage customer requests from initiation to resolution. It provides a clear reportable audit trail.

Using MERIT, it is possible to generate reports that analyse the nature of community requests. This enables Managers to develop a good understanding of the issues and assets that the local community is concerned about. However, officers do not use MERIT in a consistent way for the management of all customer requests regarding Council assets.

Officers often do not record their assessment of issues raised by the community and often do not record the details of what they have done to address the issue. This results in a need to reinspect sites in order to respond to follow-up requests from the community. The MATE project work that is currently underway, will link MERIT with the T1_W&A system and will require officers to record more details in the T1_W&A system when they respond to an asset related customer request.

7.1.4 MOBILE COMPUTING

Officers responsible for asset inspections and maintenance do not have access to mobile computing systems or mobile geospatial information. As a result officers rely on paper-based systems in the field, which results in poor record keeping and makes it difficult to audit performance.

As noted in Table 5 above, Council's geospatial data stored in Intergraph is often incomplete making rapid implementation of spatially based mobile computing difficult for some asset classes.

7.1.5 RECENT SYSTEM IMPROVEMENTS – MATE PROJECT

The need to rationalise and integrate the disparate systems, listed in the table above, has been the recent focus of the MATE project, which is working towards developing a reliable maintenance management system while integrating all Council asset data into the T1_W&A system.

The development and implementation of an integrated asset management system is complex and considered critical for improvement of Council's asset management practices. It is recognised that Council must have a system with functionality that:

- Includes a common asset register that can be used by all Council Officers and is integrated with Council's GIS, customer service and finance systems.
- Enables storage and reporting of asset information including: asset quantities, types, locations, valuations, life estimates.
- Includes processes that support efficient and auditable delivery of asset inspection and maintenance activities.

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	22

- Enables that works orders creation, batching and cost management.
- Ensures work orders are linked to the affected assets so that asset changes are reflected in the centralised asset register.
- Enables reporting to support strategic planning, performance management, financial reporting and continuous improvement actions.
- Facilitates demand forecasting, lifecycle costing, optimised decision making, predictive deterioration modelling, defect reporting and failure mode analysis for use in future asset management decision making.

The MATE project team's initial focus was to roll out the T1_W&A system for the Fleet Management and Buildings Maintenance Units. A rudimentary system with links to Integraph (GIS) and Computron was rolled out in 2010 with limited success for building management. Works & Assets is currently linked to Computron and Integraph. The link to Computron is robust, however, the link to Integraph currently adds little value because the asset data stored in Integraph is incomplete.

Since the initial rollout, Council has developed an agreed maintenance management solution (MMS). The MMS describes Council's maintenance philosophy for the following activities:

- Routine Maintenance
- Reactive Maintenance
- Routine Site Inspections

Further development of the T1_W&A system, which is currently underway, is based on Council's agreed maintenance management philosophy and is expected to progressively enhance Council's ability to store and access all asset data, provide an audit trail, rationalise work processes, produce reports on asset performance and generally introduce a more structured approach to asset management. The upgraded system will be linked to Council's customer request system (MERIT) so that Council's response to maintenance requests can be better managed and monitored. The community will also be kept better informed on the progress of maintenance activities.

The Recreation and Open Space Branch will begin using the modified Works & Assets System during 2011-12. The system will be subsequently rolled out for the management of buildings, roads and other civil infrastructure. Future improvements are expected to support improved condition auditing and reporting functionality, as well as improved responsiveness, communication and performance of service.

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	23

7.1.6 RECOMMENDED IMPROVEMENT ACTIONS

Implementation of the following recommendations will require ongoing investment in the MATE Project, which was established to ensure effective Council information systems are in place to improve the effectiveness of asset management.

Recommendation 1 Develop a scoping brief - TechnologyOne Works & Assets - Enhancement

Develop a scoping brief for the future development of the T1_W&A System to enable rollout of the maintenance management system for:

- Buildings
- Roads
- Civil Infrastructure (including paths, street trees, drainage assets)

The brief should incorporate development of management reports and geospatial mobile system functionality to support asset condition audits using a repeatable and transparent defect based methodology that can be used for all asset classes.

Recommendation 2 Set up MERIT categories to link to TechnologyOne –Works & Assets

Ensure MERIT request categories are set up for all asset related community requests in a way that will facilitate future analysis and performance reporting and can be linked to the T1_W&A System.

Adopt a phased approach for implementation. Commence with implementation for the Building Management Unit.

Recommendation 3 Develop TechnologyOne - Works & Assets reports

Develop reports within the TechnologyOne System to facilitate performance improvements and enable improved analysis of asset maintenance trends over time. Commence with reports for the Recreation and Open Space and Buildings and Properties branches.

Recommendation 4 Integrate Council's financial asset register into TechnologyOne -Works & Assets

Ensure Council progressively works toward having one asset register (stored in T1_W&A) that is used by all staff, including the Finance team, which is responsible for assessing and reporting all fixed asset valuations.

Ongoing data management responsibilities will need to be defined to ensure ongoing reliability of the data used for asset management and financial reporting.

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	24

Recommendation 5 Procure or develop a strategic asset planning tool

Develop a business case that documents Council's requirements regarding asset management system functionalities to enable Council to undertake key strategic asset management tasks including:

- Predictive asset deterioration and financial modelling
- Life cycle costing
- Optimised decision making (e.g. 'renew' versus 'maintain')
- Scenario planning (e.g. showing budget provision against service outcome)

It is important that any new system can be integrated into the centralised asset register that will be contained in the T1_W&A system

Recommendation 6 Introduce mobile computing with GIS interface for asset inspections and audits

Investigate, scope, acquire and implement a mobile computing system that makes use of mobile data loggers with spatial GIS interface capabilities to facilitate collection of asset inventories, defects, condition and other audit data. Any system adopted must interface seamlessly with the centralised asset register that is developed in the T1_W&A System.

It is considered important to develop and implement a mobile computing capacity that includes the use of data loggers for asset inspections and audits. This will assist in improving the quality of data stored in Council's asset management system.

7.2 ASSET DATA AND KNOWLEDGE

The Sustainable Asset Management Branch has undertaken a desktop assessment of some of Council's asset data and knowledge. The findings are summarised in the table below, which outlines the reliability of available Council asset data for each of the asset classes listed.

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	25

Table 6 – Current Status - Asset Data & Knowledge

Asset Class	Data Repository	Data Attribute and Knowledge*						
		Inventory	Condition	Valuation	Performance / Functionality	Risk	Environment	Accessibility
Road	MASS	A	A	A	A	A	C	A
Footpaths	MASS	A	A	A	A	A	C	B
Laneways	MASS	A	A	A	A	A	C	A
Kerb & Channel	MASS	A	A	A	A	A	C	NA
Buildings	Forecaster T1_W&A	B	B	A	C	B	B	C
Open Space	Info Park	B	B	A	B	A	B	C
Stormwater Drainage	MASS	A	B	B	B	B	C	NA

Legend:

NA: Not Applicable

A Highly Reliable

Data based on sound records, procedure, investigation and analysis, which is properly documented and recognised as the best method of assessment.

B Reliable

Data based on sound records, procedure, investigation and analysis which is properly documented but has minor shortcomings, for example the data is old, some documentation is missing and reliance is placed on unconfirmed reports or some extrapolation.

C Uncertain

Data based on records, procedure, investigation and analysis, which is incomplete or unsupported, or extrapolation from a limited sample for which grade A or B data is available

* See Sections 7.2.1 to 7.2.6 on interpretations of data attributes.

The assessment highlights gaps in current knowledge. It is important to note that a rating of A does not imply perfect data and knowledge, nor does it imply that no further work is required. Continued investment in asset audits and data management is therefore necessary to ensure Council's asset data is accurate and reliable.

A summary of the current status is outlined below for each data and knowledge attribute.

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	26

7.2.1 INVENTORY DATA

The quality of data is highly reliable in terms of asset inventory completeness and accuracy for most asset classes. However, it is necessary to regularly review and validate the databases, at each review of the individual AM Plans, to ensure that they remain current and relevant.

7.2.2 CONDITION AND VALUATION DATA

Council has a good understanding of the condition and valuation of most asset classes. Condition audits (which often include defect/ risk assessments) are carried out on Council's assets on a regular basis by Council Officers, with the processes and methodologies audited by external auditors.

Council has developed a robust framework for the condition and risk assessment of most asset classes. The framework includes transparent and auditable processes that consider elements that are significant and are supported by algorithmic methodologies and aided with photographic examples, where appropriate.

In practice there is some confusion regarding the purpose of a condition audit compared with a defect/risk assessment inspection.

For most major asset classes, condition data is captured in the MASS system and used to establish capital works priority ratings. Condition risk and viability assessments for buildings are captured in the Forecaster system.

Current condition rating scales appear to be inconsistent for different asset classes. For example, building asset has a rating scale ranging from '1' (new asset /very good) to '5' (very poor / not serviceable). Roads, footpaths, laneways, on the other hand, have a scale ranging from '0' (total failure) to '5' (very good). Different rating scales cause confusion amongst staff and makes benchmarking with other Councils difficult.

Frequent condition auditing at 4 to 5 year interval enables Council to 'refresh' its understanding of asset conditions at regular intervals. The condition data, however, provides only a snapshot view of the condition at the time of assessment. Without a predictive capability, incorporating deterioration models, it is currently not possible to establish future condition profiles of assets over a long planning horizon.

The Finance Branch undertakes regular valuation of Council's assets under the Local Government Financial Reporting requirement. The Engineering Services Branch maintains a database of current contract rates that are used for the capital works program forecasts.

7.2.3 PERFORMANCE/ FUNCTIONALITY KNOWLEDGE

Requirements for road and road related assets are generally well understood and documented. Asset performance/ functionality requirements for Council buildings and open spaces and other asset classes are generally understood but have not been clearly documented, or confirmed via community consultation, making it difficult to

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	27

objectively measure how well Council's assets meet community expectations regarding asset performance or functionality.

7.2.4 RISK DATA & KNOWLEDGE

Delivery of community services, through the provision of assets, presents risks to Council that must be identified and managed. An enterprise risk management process has been implemented at the corporate level, with the establishment of both strategic and operational risk registers across the organisation. The risk management process will need to be extended and developed to enable risk assessment and rating of all facets of asset management activities. Council also needs to consider the potential impact that natural disasters may have on their assets and plan for emergency response.

The risks associated with the management of each asset class are generally well understood by those responsible for the maintenance and renewal of Council assets. Council currently undertakes routine inspections of its road reserves, buildings and playground assets in order to identify defects or potential hazards and risks and to establish programs for repair and maintenance work for these assets. It also has in

Environmental Sustainability DATA & KNOWLEDGE

Council is committed to the provision of "best practice" environmentally responsible services. The need for climate change adaptation, carbon pollution reduction, water usage reduction and nature conservation are high on Council's list of priorities. The strategies Council has developed to further its environmental goals will have a significant influence upon Council's service/ asset planning and decision making. These include:

- Water Sensitive Urban Design (WSUD) for Council Infrastructure Assets Policy
- Environmentally Sustainable Design (ESD) for Council Buildings Policy
- Yarra Environment Strategy
- Carbon Neutral Action Plan (CNAP).

Infrastructure asset creation/acquisition decisions need to consider environmental issues over the entire life cycle of proposed assets. These considerations need to inform asset design, specification, construction materials selection and techniques, operating models and disposal procedures (including the potential to recycle assets at the end of their useful lives).

Whilst the emphasis is now focused on the management of buildings, through the application of "best practice" Environmentally Sustainable Design Principles, this should be extended progressively to other asset classes in future.

With an increasing emphasis on environmental sustainability it is envisaged that significant effort will be required to better understand the asset knowledge requirements that are relevant for monitoring and improving the sustainability of all asset classes.

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	28

7.2.5 ACCESSIBILITY DATA & KNOWLEDGE

Consistent with Council's objective of achieving greater access and inclusion, Council has adopted a Disability Action Plan 2010-2013. The Disability Action Plan contains four Strategic Directions and eight Key Result Areas (KRAs). Two of the KRAs that have implications for asset management are:

- KRA Two: Built Environment

Continue to improve physical access to the built environment - buildings (public and where possible private), parks, open spaces, signage, roads and footpaths.

- KRA Three: Facilities and Events

Ensure that all Council facilities and events meet accessibility standards and demonstrate access and inclusive practices.

Action Plans for these two KRAs have been developed and include asset related actions.

7.2.6 RECOMMENDED IMPROVEMENT ACTIONS

It is considered important to recognise that Council must continually invest in maintaining and improving asset data and knowledge in order to demonstrate good governance and make well-informed asset management decisions to sustainably meet community needs.

It is intended that an inventory of assets will be collated and reviewed when each AM Plan is updated. Each AM Plan will also incorporate detailed condition and asset valuation data and clarify data maintenance roles and responsibilities. Where appropriate, AM Plans will include assessment of functionality, environmental sustainability and accessibility. Given that the Buildings AM Plan is currently being reviewed and updated, the initial focus for improvement in Council's asset data and knowledge will relate to building assets.

Implementation of the following recommendations is expected to lead to improvements in Council's asset data and knowledge. Many of the recommendations proposed here will be undertaken progressively as existing AM Plans are revised.

Recommendation 7 Review quality of existing data

For each asset class, review Council's existing asset attribute and condition data, including life expectancies to ensure they are accurate and meet functionality, utilisation, and risk management and valuation requirements relevant to each of the different asset classes.

Recommendation 8 Review and upgrade Council's condition audit methodology and rating scales

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	29

Review Council’s approach to condition auditing for each asset class. Compare existing processes with industry best practice and adopt a consistent system before migrating all condition data into T1_W&A. A consistent rating scale should be adopted within Council for all asset classes. The scale used should be consistent with that recommended by the Municipal Association of Victoria (MAV) to facilitate future bench marking.

It is recommended that the revised condition audit methodology be consistent with the objectives of Council’s maintenance management philosophy. The audit methodology should be transparent, repeatable and objective. To ensure reliable repeatability it is considered important that the audit include the collection of asset defects data and a rating of the severity and extent of each defect observed.

Council officers, responsible for the maintenance and renewal of each asset class, should develop the list of generic defects and define the relevant defect severity and extents to be audited. This will also lead to the development of technical service levels.

Recommendation 9 Implement defect-based condition audit program

Using the revised methodology developed under Recommendation 8 above, complete condition audits for different asset classes at the time of the development or review of the individual AM Plans (see Recommendation 17):

- Building assets
- Stormwater assets
- Pathway assets
- Open Space Assets
- Roads

Increased investment in independent condition audits would complement current in-house assessments and improve reliability of existing condition audit data.

Recommendation 10 Define asset inspection types and educate staff

Define different asset inspection types to ensure all relevant staff have a common understanding of how a condition audit differs from a defect / hazard inspection. The definitions will be embedded into each revised AM Plan and communicated to staff responsible for the asset inspections.

Recommendation 11 Develop risk management procedures for all asset classes and lifecycle stages.

Identify and assess all strategic and operational risks during the process of reviewing the AM Plan for each asset class.

For all asset classes, develop, implement and review risk management procedures that cover all stages of an asset’s lifecycle. For example:

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	30

- Risk management strategies may need to be linked to asset renewal, upgrade and maintenance programs.
- All business cases should include appropriate levels of risk assessment and risk mitigation actions.
- Audits to monitor and ensure compliance with regulations (and various codes of practice) should be defined and implemented.
- Consider introduction of a structured Quality Management System, which may involve internal and external audits
- Ensure that risk assessments include response to unforeseen events, natural disasters and adaptation to climate change.

Recommendation 12 Determine environmental sustainability data requirements

Review the environmental sustainability data requirements, establish and implement processes for the collection and capture of appropriate data to measure and monitor the performance of environmentally sustainable design practices for all asset classes to meet “best practice”.

Recommendation 13 Support implementation of ESD principles and the CNAP

Support the development and implementation of programmes that apply the ESD Buildings Policy including the CNAP, and measure performance against policy targets.

Recommendation 14 Support implementation of WSUD principles

Support the development and implementation of WSUD principles for all infrastructure asset classes and measure performance against policy targets. Costed improvement actions should be incorporated into the upgrade funding allocations presented in the predictive financial model to be developed for each AM Plan.

Recommendation 15 Support implementation of the Disability Action Plan 2010-2013

Support the Disability and Access Services team in the implementation of all asset management related actions as identified in the Disability Action Plan 2010-2013. Include consideration of the implications of recent amendments to the Disability Discrimination Act. Costed asset upgrades should be incorporated into the funding allocations presented in the predictive financial model to be developed for each AM Plan.

Recommendation 16 Develop and implement data management responsibilities and processes

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	31

Review existing data capture techniques for all assets and develop a strategy for ongoing data maintenance. Determine appropriate frequency of data collection, and methods of collection. The review should consider ongoing resourcing requirements.

Develop and implement data management guidelines and practices including assignment of responsibilities for:

- Data management tasks such as:
 - Recording inventory data for new assets and asset upgrades
 - Recording asset disposal
 - Collection of condition data
 - Updating inventory data
 - Updating condition data
 - Recording asset valuations
- Updating Council's risk register and identification of risk mitigation actions
- System development tasks
- Data auditing
- Report design and preparation.

7.3 SERVICE & ASSET PLANNING PRACTICES

Asset management at the City of Yarra has evolved in a reactive, ad hoc manner over many years. In general, the importance and role of physical assets in the delivery of Council's services has been underrated. It is also now acknowledged that the management of assets cannot be the sole responsibility of technical specialists. Detailed consideration of how service and asset management are interrelated is necessary.

Council's current approach to the following service and asset management planning practices has been reviewed with the intention of identifying improvement actions:

- Service planning - demand forecasting
- Defining service levels
- Asset management planning
- Capital works planning
- Long term financial planning

It should be noted that there are many other practices that have a critical impact on service delivery. These will be considered, in revised AM Plans, as appropriate for the relevant asset class.

The Service Delivery Model presented in Figure 2 will be used as a guide to identifying Council's core services.

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	32

7.3.1 SERVICE PLANNING – DEMAND FORECASTING

Service planning is generally the responsibility of Managers with key areas of responsibility such as:

- Family & children’s services
- Leisure
- Aged & disability services
- Arts & culture
- Libraries
- Strategic transport
- Recreation and open space
- Community planning and advocacy.

It is generally assumed that the current asset portfolio meets the basic service needs of the local community and that continuous improvement of the portfolio is necessary, given that community needs are not static and there is an ongoing desire for more and better services to suit changing needs.

Council determines its asset requirements to meet service needs using various mechanisms including, but not limited to the following:

- Review of customer requests
- Community satisfaction survey findings (e.g. DPCD Community Satisfaction Survey)
- Analysis of population projections and other demographic profile changes
- Asset renewal planning, including condition audits and inspections
- Ongoing review of legislative obligations
- Community consultation during the development of various plans and strategic documents including:
 - Land Use Planning – Municipal Strategic Statement Review
 - Melbourne 2030 and Demographic Projections (id. population forecast to 2016)
 - Social Infrastructure Management Plan (2004)
 - Yarra Strategic Planning Scheme (YSS)
 - Yarra City Urban Design Strategy
 - Urban Design Frameworks
 - Structure Plans
 - Local Area Plans

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	33

- Master plans
- Asset related strategies (such as the Open Space Strategy, Leisure Strategy, Road Management Plan, Bike Path Strategy etc)
- Individual service plans from various Branches within Council.

The service planning approach adopted varies across the organisation and is often site or precinct focused. The Victoria Street East Precinct Plan, developed in 2011, represents a first step in developing a more consistent approach to service planning for community facilities.

Detailed demand forecasting data is often limited. In the absence of detailed demand forecasting and a good understanding of asset utilisation, renewal of existing assets focuses on ensuring that the asset portfolio will continue to sustain the current level of service. Provision of new and upgraded assets, to accommodate growth and changing demand, is considered nominally based on population growth or residential development activities known to be occurring within the municipality. Planning exercises tend to focus on identifying asset solutions (such as building upgrades or new building proposals).

In the development and review of all future AM Plans it is essential that the advice and input on demand forecasts from the Community Planning and Advocacy Branch be included.

7.3.2 ASSET MANAGEMENT PLANNING

Council has previously developed AM Plans for the following assets: Roads, Buildings, Fleet, Open Space, Furniture, Arts and Culture. These Plans document the status of the assets at the time of writing.

AM Plans for stormwater assets and pathway assets have not been developed as individual plans. These asset classes are discussed briefly in the Road Asset Management Plan as footpaths & shared pathways and drainage. However, their significance (both in terms of their financial value and their importance for community wellbeing) suggests a need for more detailed asset management planning for stormwater and pathway assets.

Participation in the MAV STEP program, since 2003, provides a forum for continual improvement through the identification of “gaps” and also enables benchmarking of Council’s asset management practices against industry standards. When Council’s AM Plans were assessed against the National Asset Management Assessment Framework (NAMAF) gaps and improvement recommendations were identified.

7.3.3 DEFINING SERVICE LEVELS THAT MEET COMMUNITY EXPECTATIONS

Levels of service are a key component of the asset management planning process.

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	34

Council has a good understanding of community needs and expectations, but has found it difficult to translate these expectations into clear and measurable service levels that can then be used to guide asset management decisions.

Council has, in the past, prepared its AM Plans in line with the core approach and has adopted service levels based on current management practices. Service levels had been derived from currently available records and documentation, such as Council's strategic planning documentation.

Other than meeting the compliance requirements, the levels of service provided currently are mainly technical in nature, from the perspective of maintenance programmes driven by available budgets, and also measured in terms of operational response times.

It is recognised that there is a need to review and further refine the levels of service across all asset classes. Further work is required to document community service level expectations and translate these into technical service levels for all asset classes.

7.3.4 CAPITAL WORKS PLANNING

Prioritised lists form the basis for the development of Council's ten-year capital works programs using Forecaster. The ten-year program aligns with the adopted capital works budgets and the likely budget trends.

Road assets are 'prioritised' for renewal based on their MASS ratings, which are continually updated as condition data is collected and their risks assessed. The 'prioritisation' process is generally based on the principles of 'triple-bottom-line' evaluation and risk assessment. The prioritisation of renewal works for other asset classes is less transparent and objective.

Prioritisation of capital works projects for the creation of new assets and the upgrade of existing assets tends to be based on staff knowledge and experience. It is recognised that there is a need to develop and implement a more consistent and transparent approach to the prioritisation of new, upgrade and renewal works for all asset classes.

Planning for capital works is currently conducted mostly in isolation by individual Branches, although there have been some initiatives by staff to involve input on their proposed capital works program from other Branches. Proposed capital works program on road assets had also been forwarded annually to external utility organisations for their feedback.

7.3.5 LONG TERM FINANCIAL PLANNING (LTFP)

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	35

Council's long term financial planning is generally aligned with financial forecasts developed in Forecaster for all capital works programs, based on the prioritisation process in MASS.

In recognition of the need to establish an appropriate balance between developing new assets and maintaining its existing asset base, Council is committed to managing its assets in accordance with sound, industry recognised financial asset management practices. These practices include:

- Reducing the 'funding gap' between what is budgeted and what is required for the maintenance/renewal of current infrastructure.
- Balancing investment in new infrastructure compared with maintenance/renewal of existing infrastructure.

Lifecycle cost analysis is undertaken as part of the business case preparation process but the approach adopted varies across the organisation.

7.3.6 RECOMMENDED IMPROVEMENT ACTIONS

Recommendation 17 Develop and review AM Plans

Develop and review Council's AM Plans as per recommended timeline below, and subsequently on a 5-yearly review cycle in future:

- Buildings – 2011/12
- Stormwater – 2012/13
- Open Space – 2013/14
- Roads – 2014/15
- Pathways – 2015/16.

It is recognised that AM Plans must be continually reviewed and improved and should be viewed as working documents that guide asset management practices across the organisation.

AM Plans must align with the current Council Plan and AM Policy and strategic objectives and respond to any changes in the legislative environment.

All AM Plans should confirm existing asset data including inventory, condition, valuation, functionality, environmental sustainability and accessibility data. The Plans should demonstrate clear links to relevant services and service planning outcomes (including customer service levels). AM Plans should also include basic strategic considerations such as demand forecasting, optimised decision making, deterioration modelling and failure mode analysis. A predictive financial model should be developed in each Plan and used to inform Council's long-term financial plan.

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	36

Recommendation 18 Identify service managers and asset managers for the different types of services provided

In order to facilitate improved integration of service and asset planning it is necessary to identify the types of services provided, the Council assets that support the delivery of those services, and the staff responsible for the management of services and the assets.

A Service Manager should be assigned to each service, and an Asset Manager identified for each asset category that supports the delivery of the service.

The service manager will be responsible for communicating community expectations to the asset manager to ensure Council's asset portfolio meets community needs.

Recommendation 19 Develop a conceptual model for integrated lifecycle service and asset management

Develop a model for integrated service and asset management that establishes best practices lifecycle processes.

The model shall support the definition of asset and service management, help to clarify the roles and responsibilities of all service and asset managers, and suit the needs of all key stakeholders at the City of Yarra.

Recommendation 20 Consult regarding demand forecasts

More comprehensive and consistent service planning is required in order to ensure Council considers factors such as changes in community expectations, demographics, business activities, legislative and compliance requirements, when making service and asset management decisions.

Future reviews of Council's AM Plans should involve the input of respective Service Managers (identified in Recommendation 18 above) and Council's strategic urban planners in order to ensure demand forecasts and customer expectations are appropriately considered

Recommendation 21 Document service levels for major services provided

It is important that Service Managers and Asset Managers are actively involved in the development of appropriate and affordable service levels. The technical service levels shall be presented to the Service Managers to get their endorsement that the technical service levels will support customer service delivery and meet the service outcome expected.

Future AM Plans should adopt an advanced approach, which will link service levels to delivery costs. This will involve more comprehensive community engagement during the process of establishing service levels. Community surveys and/or focus group workshops should be used, as appropriate, to assist in determining service levels that are linked to the cost of service delivery.

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	37

Recommendation 22 Develop, document, and implement a process for integrated planning in capital works program

A formal approach to integrated planning is essential to ensure that all service deliveries are coordinated and are aligned with the internal and external operating environment. This will result in optimised resource allocations, prevent any abortive works, and minimise disruptions to community during the constructions.

An ideal platform for this integrated planning will be through the SIN forum where all proposed capital works will be tabled for review and discussion.

Recommendation 23 Refine the AM Plan financial model

Include financial models in Council's AM Plans and use these models to inform Council's Long Term Financial Plan (LTFP).

Predictive financial models, included in each AM Plan, should seek to determine sustainable renewal funding levels based on asset condition data, the expected life of Council assets and current replacement costs.

Financial models developed in the AM Plans should also predict the capital upgrade and maintenance expenditure necessary to deliver current and desired service levels within financial and other practical constraints. It is considered important to work in collaboration with the Finance Branch to ensure that the LTFP and AM financial models are consistent and able to support sustainable renewal of Council assets.

The financial models should include allowance for inflation and contingencies to cater for uncertainties. The financial modelling should include scenario analyses that consider the impact of different budget levels on meeting community service outcome.

Recommendation 24 Formalise lifecycle cost analysis process in business case submission

Formalise Council's approach to lifecycle cost analysis and ensure that a consistent methodology is used for all business case submissions for capital works projects involving new asset creation or upgrades.

Service managers should be responsible to establish prioritisation criteria for new and upgrade capital works.

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	38

7.4 AM WORK PRACTICES

Council's current approach to the following work practices have been reviewed with the intention of identifying improvement actions:

- Asset handover
- Asset rationalisation
- Maintenance

It should be noted that there are many other asset management practices that have a critical impact on service delivery. These will be considered in detail in AM Plans.

7.4.1 ASSET HANDOVER (TRANSFER)

Council does not have a documented asset handover/transfer process for all new assets and asset upgrades. The current approach is somewhat ad hoc. Relevant data is often not updated in the relevant information systems. There is also confusion amongst staff regarding their roles and responsibilities when new assets are created or existing asset are upgraded or renewed.

7.4.2 MAINTENANCE PRACTICES

Maintenance of Council assets is generally the responsibility of the Infrastructure Services Division. For some asset classes, maintenance practices are not well documented, making it difficult to monitor performance.

Following early implementation of the TechnologyOne Works & Assets System (MATE project) it was recognised that Council needed to develop a more consistent approach to asset maintenance. A revised maintenance management philosophy was documented to define Council's approach to the following activity types:

- Reactive Maintenance
- Routine Maintenance
- Routine Asset Inspections

Based on that philosophy, workflow processes are currently being developed for the maintenance of open space assets as part of the rollout of T1_W&A.

7.4.3 ASSET RATIONALISATION

Assets are occasionally rationalised on a case-by-case basis, generally as part of major capital works projects. Council's Building AM Plan assessed the condition, criticality, functionality and viability of all Council buildings and made some recommendations for asset disposal.

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	39

Given the increased level, particularly of residential development occurring in the municipality and the potential for increased provision of some services, Council has recently undertaken an assessment of some underutilised assets such as some of the vacant Council buildings within the Collingwood Town Hall Precinct.

7.4.4 RECOMMENDED IMPROVEMENT ACTIONS

Recommendation 25 Develop and document asset rationalisation process

It is recommended that an asset rationalisation review/study be undertaken across each asset class in order to assess the current requirement and foreseeable future need for underutilised, obsolete and underperforming Council assets. The review must include consideration of community benefits, future needs, Council's legal obligations, as well as potential alternative use of the assets. The cost effectiveness of ongoing maintenance and renewal of underutilised or obsolete assets must also be considered. It is recommended that a generic process, or ranking criteria, be developed to facilitate the rationalisation process.

In the first instance, it is recommended that Council's current building portfolio be reviewed given that there are number of vacant and underutilised buildings.

Recommendation 26 Develop guidelines for asset handover

There is a need to document and implement an asset handover process and guidelines for the collection, transfer and management of data and information about newly created, upgraded or renewed assets.

During development of the guidelines it is important to identify the critical data needs of each stakeholder and each asset class. The data to be recorded and transferred is likely to include: asset quantities, condition ratings, engineering drawings and plans, accounting/capitalisation data. Responsibilities and timing for data updates in each system should be clearly documented for each asset class.

Recommendation 27 Document technical standards for all maintenance and inspection activities

In preparation for the rollout of the T1_W&A system, it is necessary to progressively review all maintenance and operational practices managed by the Infrastructure Services Division. This work will involve documenting current technical standards for all maintenance and inspection activities, in a format that is consistent with Council's maintenance management philosophy, and supported via the T1_W&A system.

7.5 ORGANISATIONAL CONTEXT

Successful asset management underpins long-term sustainability. It is important for everyone in the organisation to understand what asset management is about and to

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	40

understand that sound asset management planning and strategies are an organisation wide responsibility.

As discussed previously, asset management at the City of Yarra forms part of Council's strategic planning framework. Funding and the level of asset management awareness influence the degree to which Council's strategic objectives can be achieved.

7.5.1 ASSET MANAGEMENT TRAINING AND AWARENESS

The level of AM awareness varies across the organisation.

There is currently no formal AM training program for asset management staff, support staff, management and Councillors.

The Sustainable Infrastructure Network (SIN) is the successor to the Asset Management Improvement Team (AMIT) that was set up to oversee the asset management capability development and improvement program. The purpose of the SIN is to provide a forum for integrated and sustainable planning, development and management of Council infrastructure across relevant Council business units.

7.5.2 RECOMMENDED IMPROVEMENT ACTIONS

Recommendation 28 **Report to Council annually on AM improvements**

In order to improve Councillor's AM awareness, it is recommended that the Manager Sustainable Asset Management report annually to Council on asset management improvements undertaken during the year to demonstrate the benefits of implementing this AM Strategy and associated work practice improvements.

Recommendation 29 **Review staff asset management skills matrix**

In order to facilitate improvement in AM, review staff experience and capabilities to identify gaps in AM skills, including the following relevant skill sets:

- Strategic planning
- Service level development
- Condition auditing
- Performance monitoring
- Asset risk management
- Predictive modelling
- Life cycle costing
- Optimised decision-making processes
- Project delivery.

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	41

Recommendation 30 Develop and deliver asset management training

Using the skill review undertaken in Recommendation 29 above, create an AM Skill Development Action Plan for relevant Council staff. Actions may include:

- Participation in industry conferences
- Development of an in-house training program via SIN
- Inclusion of asset management as a regular feature in Council's Newsletter.

Recommendation 31 Continue involvement in independent audit programs

Continued participation in the MAV Step Program, which includes annual assessment of Council's AM processes and practices using the National Asset Management Assessment Framework, is recommended. Participation should include progressive, timely implementation of the improvement recommendations to achieve agreed targets.

Continued participation in reporting and benchmarking studies administered by the DPCD will also enable Council to monitor and demonstrate improvements.

Participation in other independent audits could be considered, where appropriate, to assess compliance of Council's asset management practices with the objectives of this AM Strategy and future AM Plans.

Recommendation 32 Revise terms of reference for SIN

In order to improve the influence and effectiveness of SIN, it is recommended that its terms of reference be revised to make the following activities mandatory:

- Major asset related projects to be reviewed by SIN at the concept stage of project planning. The review should include recommendations to the Executive regarding the project deliverability and the expected impact on community benefits and long term financial sustainability.
- Proposed capital works program to be reviewed by SIN to ensure an integrated approach to project planning and delivery.
- Implementation of the AM Strategy recommendations that have organisational wide impact are presented and considered by SIN.

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management	D11/89565	3 rd April 2012	42

8 IMPLEMENTATION PLAN

Recommendations for improvement have been consolidated under five key strategies:

- 1: Improve AM Information Systems**
- 2: Improve Asset Knowledge & Data Management**
- 3: Improve Service & Asset Planning Practices**
- 4: Improve AM Work Practices**
- 5: Enhance Organisational AM Capacity**

The proposed implementation plan is as shown in Table 7.

Improvement actions have been programmed to be completed within existing resources based on the present Sustainable Asset Management Branch operational budget allocation. There will be a requirement for specialist asset management consultants to assist from time to time. This can also be met within existing Infrastructure Division consulting budget allocation.

Some actions are project specific and a higher priority with short time frame while other recommended actions will for be ongoing for the life of the strategy.

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management			43

Table 7 – Implementation Plan

No	Action Plan	AM Objective(s)	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022
Improve AM Information Systems												
1	Scoping Brief - TechnologyOne Works & Assets – Enhancement	Integrated Strategic Service & Asset Management.	✓	✓	✓							
2	Set up MERIT categories to link to TechnologyOne – Works & Assets	Meet service delivery needs of the community	✓	✓	✓	✓						
3	Develop TechnologyOne Works & Assets reports	Meet service delivery needs of the community		✓	✓	✓						
4	Integrate Council's financial asset register into TechnologyOne Works & Assets	Improve Financial Sustainability	✓	✓	✓							
5	Procure or develop a strategic asset planning tool	Integrated Strategic Service & Asset Management.		✓	✓	✓	✓					
6	Introduce mobile computing with GIS interface for asset inspections & audits	Improve Risk Mitigation Practices		✓	✓	✓						
Improve Asset Knowledge & Data Management												
7	Review quality of existing data	Continuous Improvement in Asset Knowledge	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
8	Review and upgrade Council's condition audit methodology and rating scales	Continuous Improvement in Asset Knowledge	✓	✓	✓	✓			✓	✓	✓	✓
9	Implement defect-based condition audit program	Improve Risk Mitigation Practices	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
10	Define inspection types and educate staff	Continuous Improvement in Asset Knowledge	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
11	Develop risk management procedures for all asset classes and lifecycle stages.	Improve Risk Mitigation Practices	✓					✓				
12	Determine environmental sustainability data	Improve environmental			✓			✓			✓	

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management			44

No	Action Plan	AM Objective(s)	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022
	requirements	sustainability										
13	Support implementation of ESD principles and the CNAP	Improve environmental sustainability	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
14	Support implementation of WSUD principles	Improve environmental sustainability	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
15	Support implementation of the Disability Action Plan	Meet service delivery needs of the community	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
16	Develop and implement data management responsibilities and processes	Continuous Improvement in Asset Knowledge	✓		✓		✓		✓		✓	
Improve Service & Asset Planning Practices												
17	Develop Second-Generation AM Plans Buildings – 2011/12 Stormwater – 2012/13 Open Space – 2013/14 Roads– 2014/15 Pathways – 2015/16	Integrated Strategic Service & Asset Management.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
18	Identify service managers and asset managers for the different types of services provided	Integrated Strategic Service & Asset Management.	✓	✓	✓	✓	✓					
19	Develop a conceptual model for integrated lifecycle service and asset Management	Integrated Strategic Service & Asset Management.	✓		✓		✓		✓			
20	Consult regarding demand forecasts	Meet service delivery needs of the community	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
21	Document service levels for major services provided	Meet service delivery needs of the community	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
22	Develop, document, and implement a process for integrated planning in capital works program	Integrated Strategic Service & Asset Management.	✓									
23	Refine the AM Plan financial model	Improve financial sustainability	✓	✓	✓							

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management			45

No	Action Plan	AM Objective(s)	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022
24	Formalise lifecycle cost analysis process in business case submission	Improve financial sustainability Meet service delivery needs of the community.	✓	✓								
Improve AM Work Practices												
25	Develop and document asset rationalisation Process	Improve financial sustainability Meet service delivery needs of the community.	✓	✓								
26	Develop guidelines for asset handover	Continuous Improvement in Asset Knowledge	✓									
27	Document technical standards for all maintenance and inspection activities	Integrated Strategic Service & Asset Management.	✓	✓	✓	✓						
Enhance Organisational AM Capacity												
28	Report to Council annually on AM improvements	Integrated Strategic Service & Asset Management.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
29	Review staff asset management skills matrix	Continuous improvement in Asset Knowledge	✓			✓			✓			✓
30	Develop and deliver asset management training	Continuous Improvement in Asset Knowledge				✓	✓					
31	Continue involvement in independent audit programs	Continuous Improvement in Asset Knowledge	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
32	Revise terms of reference for SIN	Integrated Strategic Service & Asset Management.		✓					✓			

Responsible Officer	Document No.	Approval date	Page
Manager Sustainable Asset Management			46