



# PARKS & ENVIRONMENT ASSET MANAGEMENT PLAN (2010-2029)



<b>Document Control</b>	 
-------------------------	---

Document ID: 59\_07\_070909\_nams.plus\_amp template v11

Rev No	Date	Revision Details	Author	Reviewer	Approver
V1	21/12/09	Refinement of text	AW	ID	
V2	24/12/09	Refinement of text	VC		
V3	31/12/09	Final DRAFT	VC		
V4	8/3/10	Review by Manager Asset Management	PK		

© Copyright 2007 – All rights reserved.  
 The Institute of Public Works Engineering Australia.

# TABLE OF CONTENTS

<b>1.</b>	<b>EXECUTIVE SUMMARY</b> .....	<b>1</b>
	1.1 What the City of Melville Provides .....	1
	1.2 What does it Cost? .....	1
	1.3 Plans for the Future .....	1
	1.4 Measuring our Performance .....	2
<b>2.</b>	<b>INTRODUCTION</b> .....	<b>3</b>
	2.1 Background .....	3
	2.2 Goals and Objectives of Asset Management .....	5
	2.4 Strategic and Corporate Processes .....	7
	2.3 Plan Framework .....	8
<b>3.</b>	<b>LEVELS OF SERVICE</b> .....	<b>11</b>
	3.1 Customer Research and Expectations .....	11
	3.4 Current Levels of Service .....	16
	3.5 Desired Levels of Service .....	16
<b>4.</b>	<b>FUTURE DEMAND</b> .....	<b>17</b>
	4.1 Demand Forecast.....	17
	4.2 Changes in Technology .....	22
	4.3 Demand Management Plan .....	22
	5.1 Background Data.....	26
	5.1.1 Physical parameters .....	26
	5.1.2 Asset capacity and performance .....	29
	5.1.3 Asset condition .....	30
	5.1.4 Asset valuations .....	30
	5.2 Risk Management Plan .....	31
	5.3 Routine Maintenance Plan .....	31
	5.3.3 Summary of future maintenance expenditures.....	36
	5.4 Renewal/Replacement Plan.....	38
	5.4.1 Renewal plan .....	39
	5.4.2 Renewal standards.....	39
	5.4.3 Summary of future renewal expenditure .....	39
	5.5 Creation/Acquisition/Upgrade Plan .....	42
	5.5.1 Selection criteria .....	42
	5.5.2 Standards and specifications .....	42
	5.5.3 Summary of future upgrade/new assets expenditure.....	42
	5.6 Disposal Plan .....	44
<b>6.</b>	<b>FINANCIAL SUMMARY</b> .....	<b>46</b>
	6.1 Financial Statements and Projections.....	46
	6.1.1 Sustainability of service delivery .....	47
	6.2 Funding Strategy.....	53
	6.3 Valuation Forecasts .....	53
	6.4 Key Assumptions made in Financial Forecasts .....	53
<b>7.</b>	<b>ASSET MANAGEMENT PRACTICES</b> .....	<b>54</b>
	7.1 Accounting/Financial Systems .....	54
	7.2 Asset Management Systems .....	54
	7.3 Information Flow Requirements and Processes .....	55
<b>8.</b>	<b>PLAN IMPROVEMENT AND MONITORING</b> .....	<b>56</b>
	8.1 Performance Measures.....	56
	8.2 Improvement Plan .....	56
	8.3 Monitoring and Review Procedures .....	57
	<b>REFERENCES</b> .....	<b>57</b>
	<b>GLOSSARY</b> .....	<b>59</b>
	<b>ABBREVIATIONS</b> .....	<b>68</b>
	<b>APPENDICES</b> .....	<b>69</b>

## **1. EXECUTIVE SUMMARY**

### **1.1 What the City of Melville Provides**

The City of Melville (CoM) provides a Parks and Environment network in partnership with other levels of government and internal and external stakeholders to enable the delivery of the CoM's services and products. This Parks and Environment Asset Management Plan (PEAMP) encompasses 660 ha of public open space provided in active, passive and natural bushland areas. 139 playgrounds are included in this plan and are spread throughout the Public Open Space across the City. The PEAMP also encompasses 198 sites that are irrigated, mostly active and passive reserves, as well as the structures and outdoor furniture on public open space throughout the City. The plan also includes 31,085 street trees on the verges of the City and streetscapes such as roundabouts, medians and verges on our key arterial roads and corridor roads.

### **1.2 What does it Cost?**

There are two key indicators of cost to provide Parks and Environment services.

- The life cycle cost being the average cost over the life cycle of the asset, and
- The total maintenance and capital renewal expenditure required to deliver existing service levels in the next 10 years covered by CoM's long term financial plan.

Some of the sub-categories covered in this asset management plan are depreciable; irrigation; playgrounds and structures/outdoor furniture and some are non-depreciable; trees; road reserves/streetscapes; natural areas and reserves/turf passive and active.

It is not possible to apply normal asset management principles of life cycle costing to non depreciable assets therefore for the purpose of this plan; all assets have been grouped and graphed as either parks structures, irrigation and playgrounds (Parks and Environment (A)) or Parks and Environment (B) for non depreciable assets.

The life cycle cost to provide the Parks and Environment (A) services is estimated at \$2,403,500 per annum. CoM's planned life cycle expenditure for year 1 of the Parks and Environment Asset Management Plan (PEAMP) is \$3,306,000 which gives a life cycle sustainability index of 137%. This reflects the high expenditure on irrigation assets in the first year of the plan and this ratio is expected to be in the region of 83% by year 2 of this plan.

Note that these figures are based on depreciable assets only as life cycle costing cannot be applied without considering depreciation. Furthermore this requires further analysis as it suggests CoM is over budgeting for Parks & Environment assets and all indications in regards to asset condition do not support this.

The total maintenance and capital renewal expenditure required to provide Parks and Environment assets in the next 10 years are estimated at \$30,997,000 (A) and \$133,650,000 (B). This is an average of (A) \$3,539,000 and (B) \$13,365,000 per annum respectively.

CoM's maintenance and capital renewal expenditure for year 1 of the PEAMP is \$3,307,000 (A) and \$12,397,000 (B) giving a 10 year sustainability index of 106% (A) and (B) 92% (B). This indicates that we are spending about the right amount of money although the budget for irrigation does slip back considerably 1 year 2 of the plan as mentioned above.

### **1.3 Plans for the Future**

CoM plans to operate and maintain the Parks and Environment network to achieve the following strategic objectives.

1. Ensure the Parks and Environment network is maintained at a safe and functional standard as set out in this PEAMP.

2. To achieve the optimal delivery of services through the efficient and effective management of Parks and Environment assets at the optimum lifecycle cost. .

## **1.4 Measuring our Performance**

### **Quality**

Parks and Environment assets will be maintained in a usable condition at all possible times. Defects found or reported that are outside our service standard will be repaired. See our maintenance response service levels for details of defect prioritisation and response time.

### **Function**

Our intent is that appropriate Parks and Environment assets are maintained in partnership with other levels of government and stakeholders to ensure they meet current and future needs.

Parks and Environment assets will be maintained at a safe level and associated signage and equipment will be provided as needed to ensure public safety. We need to ensure the following key functional objectives are met:

- Assets must be fully operational and/or aesthetically pleasing in the case of streetscapes and trees.
- Playgrounds must meet service levels for condition and accessibility.

The main functional consequence of the failure to deliver the desired outcomes is;

- Increased maintenance and operating costs,
- Increased litigation,
- Unsatisfactory service levels,
- Increased customer complaints.

### **Safety**

We inspect all Parks and Environment assets regularly and prioritise and repair defects in accordance with our inspection schedule to ensure they are safe.

### **The Next Steps**

This actions resulting from this PEAMP are:

1. Establish an Asset Management Working Group to ensure a corporate approach to asset management
2. Investigate integrating the finance and asset management systems
3. Update and maintain all building data in the AM system
4. Review financial data and processes, particularly those relating to asset valuations and depreciation
5. Ensure the financial (Finance 1) and operational asset registers reflect the same inventory
6. Set performance targets and implement recording processes for levels of service
7. Quantify desired levels of service
8. Establish a reserve hierarchy and associated LOS standards.
9. Develop project prioritisation framework
10. Continue to develop the Long Term Financial Plan for buildings to reflect creations, acquisitions, renewals, upgrades and disposals
11. Increase renewal funding for parks structures to \$603,000 per annum
12. Increase renewal funding for irrigation at \$600,000 per annum
13. Increase renewal funding for playgrounds at \$610,000

## 2. INTRODUCTION

### 2.1 Background

The purpose of the PEAMP is to demonstrate responsible management of assets (and services provided from assets), compliance with regulatory requirements (Acts, Australian Standards) and to indicate whole of life funding required to provide the required levels of service as well as estimated replacement cost.

The PEAMP demonstrates the funding required to maintain our existing assets, funding required to replace our existing assets and forecasts the year and estimated replacement cost based on the useful life of the asset.

This PEAMP also forecasts demand for future populations based on population growth, age demographics, and changes in technology, trends, and new assets from growth (e.g. subdivisions).

The PEAMP also reviews current community and technical levels of service to determine current performance. It incorporates forecasting on desired levels of service through strategic and community plans, community surveys etc Forecasting between current levels of service, desired levels of service and determine additional assets in the future (e.g. subdivisions, park enhancement projects, realignment of local government zoning districts) to determine what additional resources are required to meet future community growth and expectations.

Asset Management was introduced to local government over ten years ago. It became compulsory for all local governments to implement Asset Management Plans in New Zealand, New South Wales, Queensland and Victoria in 2004 and in South Australia in 2007. It has been indicated that it will become compulsory for all local governments in W.A. to implement an Asset Management Plans by December 2010.

Asset category	Dimension	Replacement Value (\$ million)
<b>Depreciable Assets (A)</b>		
Irrigation	198 sites 304 ha irrigated superficial, 14 ha irrigated stormwater, 12 ha irrigated artesian.	11,24
Playgrounds	139	7.02
Structures/Outdoor Furniture	20 sets of sporting goals 24 BBQ's (10 double plates) 34 drink fountains 11 cricket practice nets 128 park benches 16 aluminium park benches 50 picnic Settings	8.61

	32 steel gazebos 112 park naming signs 23,244 timber bollards 740 plastic bollards	
<b>TOTAL</b>		<b>26.87</b>
<b>Non-Depreciable Assets (B)</b>		
Reserves/Turf	330 ha across 210 parks and reserves; 26 active and 184 passive	38.00
Road Reserves/Streetscapes	Roundabouts; verges and medians on key arterial and corridor roads	18.03
Natural Areas	264 ha of bushland	126.9
Trees (verge)	31,085	12.43
<b>TOTAL</b>		<b>195.39</b>

**Table 2.1: Assets covered by this Plan**

Key stakeholders in the preparation and implementation of this PEAMP are:

**Internal stakeholders include:**

The Elected CoM	Community representation and administration
The Executive Management Team (EMT)	CoM representation and administration
The Operations Management Team (OMT)	Identification and dimension of service requirements
The Asset Management Team	Asset management plan development, implementation, operation, monitoring, and review including continuous improvement
The Finance Department	Strategic Financial Plan development
Operational Departments involved in the creation of infrastructure	Design parameters and standards
All CoM departments who provide support Services	Operation and Administration

**External Stakeholders Include:**

The City of Melville Community	Parks users
City of Melville Tenants	Parks users

Visitors to the City of Melville	Parks users
Local Government Scheme	Insurance Minimization of Risk
State Emergency Services	Fire and Emergency Services SES State Government bodies (e.g. Main Roads, Swan River Trust, Department of Education)

## 2.2 Goals and Objectives of Asset Management

The CoM exists to provide services to its community. Some of these services are provided by infrastructure assets. CoM has acquired parks assets by 'purchase', by contract, construction by CoM staff and by donation of assets constructed by developers and others.

CoM's goal in managing infrastructure assets is to meet the required level of service in the most cost effective manner for present and future consumers. The key elements of infrastructure asset management are:

- Taking a whole of life cycle approach,
- Developing cost-effective management strategies for the long term,
- Providing a defined level of service and monitoring performance,
- Understanding and meeting the demands of growth through demand management and infrastructure investment,
- Managing risks associated with asset failures,
- Compliance with State and Federal regulations and Australian Standards,
- Sustainable use of physical resources,
- Continuous improvement in asset management practices.<sup>1</sup>

This PEAMP is prepared under the direction of CoM's vision, mission, goals and objectives.

### City of Melville's Vision:

Taking into account the social, cultural, economic and environmental areas that the community sees as important to contributing to a high level of the quality of life in the City of Melville, our vision is to:

- Create a safe, attractive City where the consequences of our actions for future generations are taken into account.
- Ensure that natural and built facilities are, where practicable, accessible to everyone.
- Generate a sense of place, belonging and community spirit.
- Ensure that all voices are heard through the creation of opportunities to participate in decisions that affect the lives of our community.

How the CoM's vision and values link to the Key Result Areas and outcomes for the community are shown in the diagram below.

---

<sup>1</sup> IIMM 2006 Sec 1.1.3, p 1.3



The CoM's Parks and Environment Service area plan objectives are;

- To maintain the City's active and passive public open space, reserves and streetscapes
- To maintain the City's natural assets including river foreshore, bushland and wetland reserves
- Develop Piney Lakes Environmental Education Centre as a centre of excellence
- Facilitate the integration of sustainability into the organisations core business processes.

#### **Linkages to Key Strategies**

The PEAMP is a vital component of CoM's overall strategic planning process. It links to the annual budget and to other Corporate Strategies listed below.

- Corporate Plan 2008-2012
- Technical Services Divisional Plan 2009
- Parks and Environment Service Area Plan 2009/10 – 2011/2012
- Public Open Space Strategy 2004
- People, Places, Participation A Community Plan for the City of Melville 2007 - 2017
- Neighbourhood Plan (North West, North East, South West, South East) 2009
- Active Recreation needs assessment survey march 2007
- Asset Management Policy (Policy No. 13-PL-008)
- Financial Sustainability – Forward Financial Planning and Funding Allocation Policy (Policy No. 13-PL-001)
- Borrowings and Asset Financial Policy (Policy No. 13-006)
- Accounting Policy (Policy No. 13-PL-007)
- Risk Management (Policy No. 26-PL-001)
- Strategic Financial Plan – The City's long term Financial Plan which outlines all aspects of the key financial strategy objectives and commitments and how future expenditure needs will be funded.
- Annual Budget of capital, operating and maintenance expenditure (2009/2010).

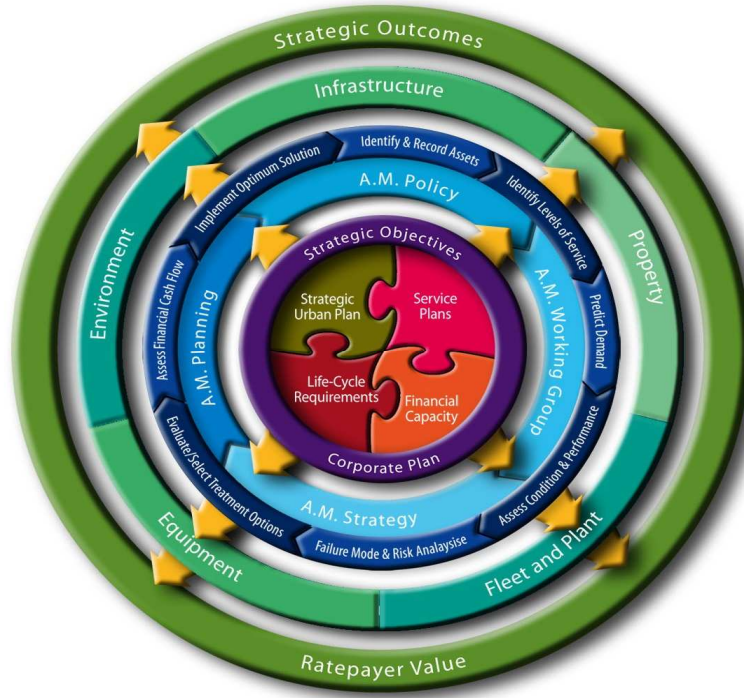
## **2.4 Strategic and Corporate Processes**

Strategic asset management at the City commences with the identification and analysis of community demands for services. The CoM's strategic and corporate plans reflect and translate community needs and Government policy into broad service delivery plans and strategies.

Fundamental to the development of corporate plans is the integration of the strategic asset management plan with the City of Melville's human resources, information technology and financial strategies. This integration of asset management into the strategic planning process maintains the focus on the delivery of services while encouraging innovation in the utilisation of existing assets and the development of alternative methods of service delivery.

The CoM's main focus of strategic asset management is to achieve the optimal delivery of services through the efficient and effective management of assets. This outcome will be supported by comprehensive strategic plans that address capital investment, the operation and maintenance of existing and new assets and the rationalisation and disposal of surplus assets.

The PEAMP forms the basis for short term budgets (5 years), medium term planning (10 years), and long term projections (20 years) for capital, operations and maintenance budgets.



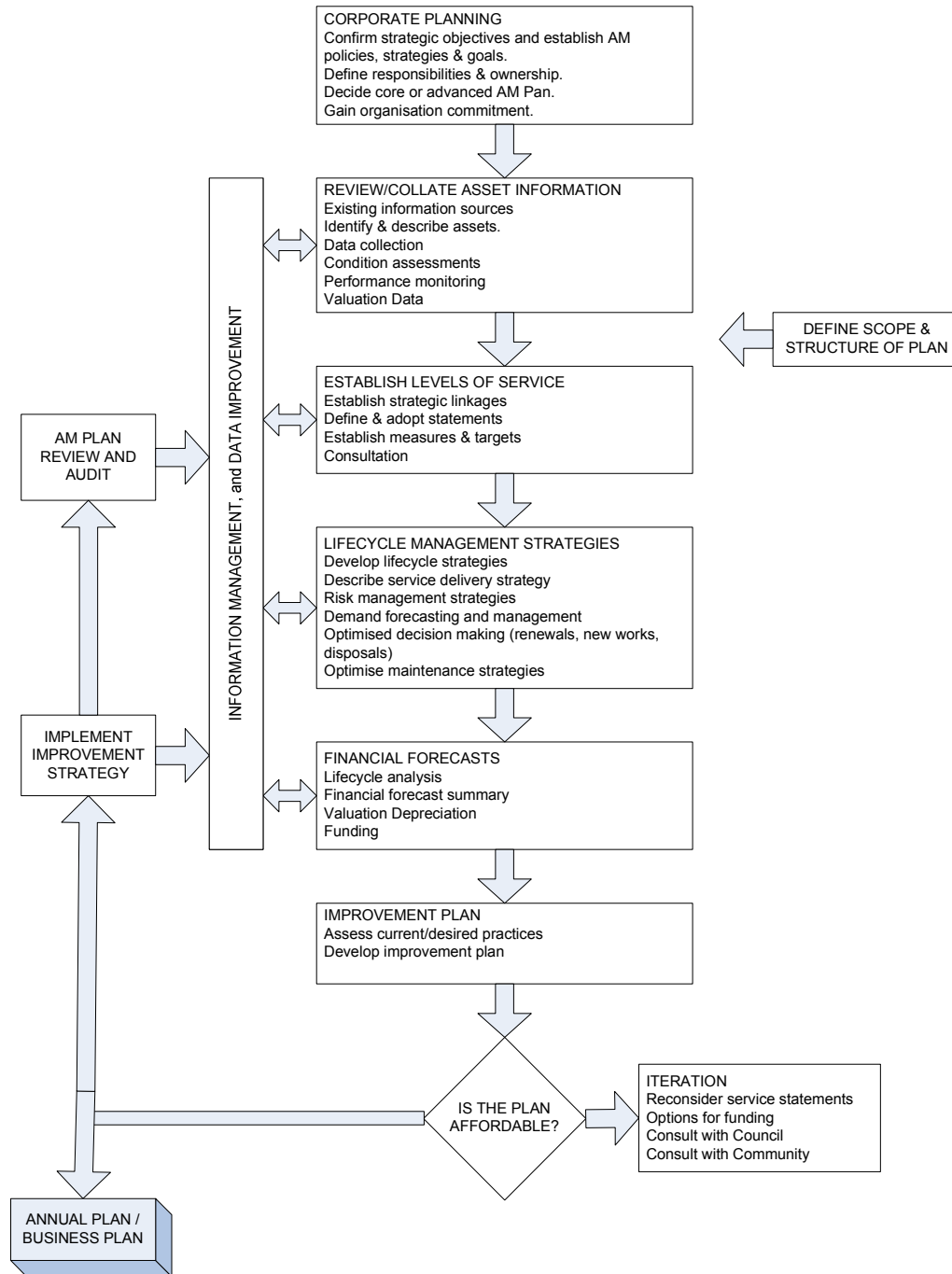
**Figure 4: Strategic Asset Management Process**

### 2.3 Plan Framework

Key elements of the plan are

- Levels of service – specifies the services and levels of service to be provided by CoM
- Future demand – how this will impact on future service delivery and how this is to be met
- Life cycle management – how CoM will manage its existing and future assets to provide the required services
- Financial summary – what funds are required to provide the required services
- Asset management practices
- Monitoring – how the plan will be monitored to ensure it is meeting CoM's objectives
- Asset management improvement plan

A road map for preparing an asset management plan is shown below.



**Road Map for preparing an Asset Management Plan**

Source: IIMM Fig 1.5.1, p 1.11

## **2.4 Core and Advanced Asset Management**

This asset management plan is prepared as a 'core' asset management plan in accordance with the International Infrastructure Management Manual. It is prepared to meet minimum legislative and organisational requirements for sustainable service delivery and long term financial planning and reporting. Core asset management is a 'top down' approach where analysis is applied at the 'system' or 'network' level. Future revisions of this asset management plan will move towards 'advanced' asset management using a 'bottom up' approach for gathering asset information for individual assets to support the optimisation of activities and programs to meet agreed service levels.

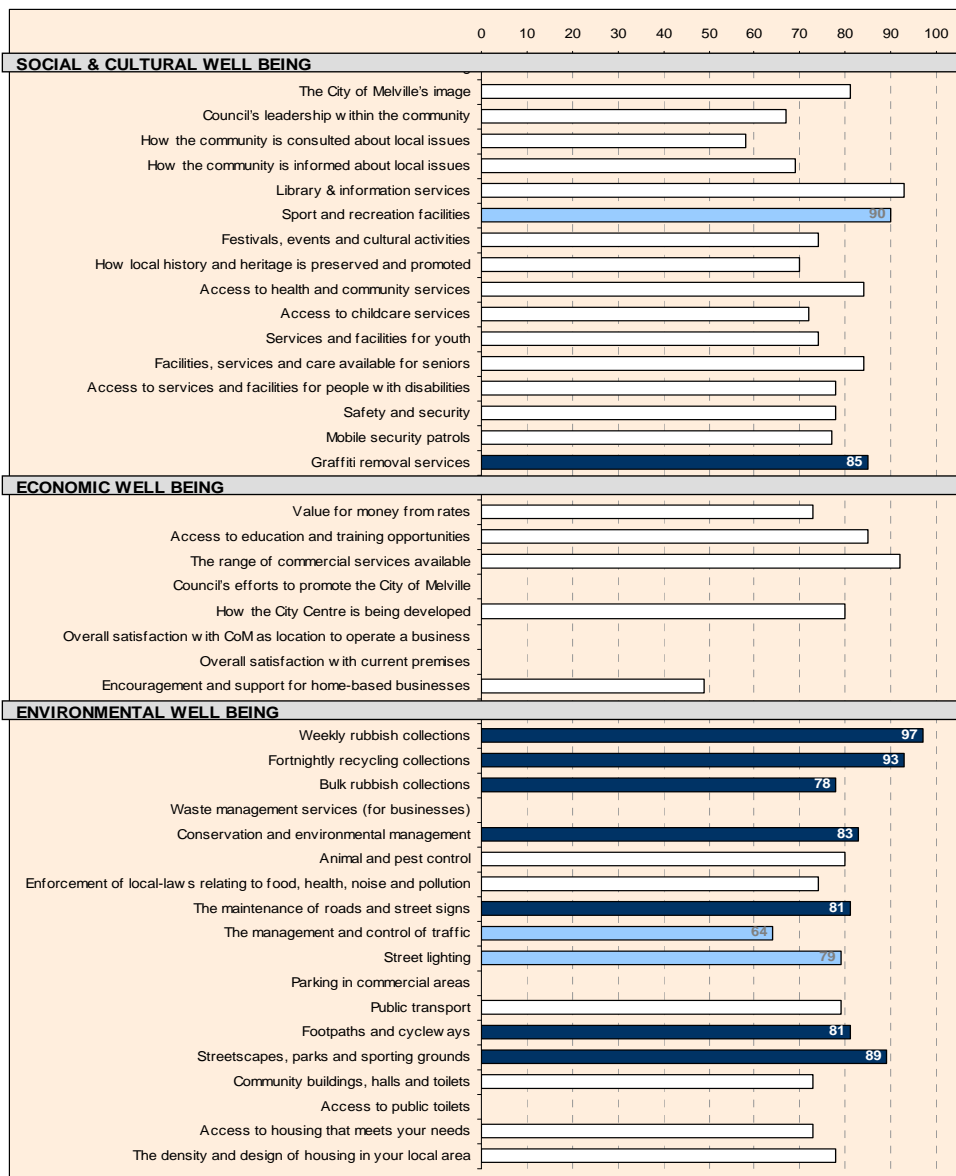
### 3. LEVELS OF SERVICE

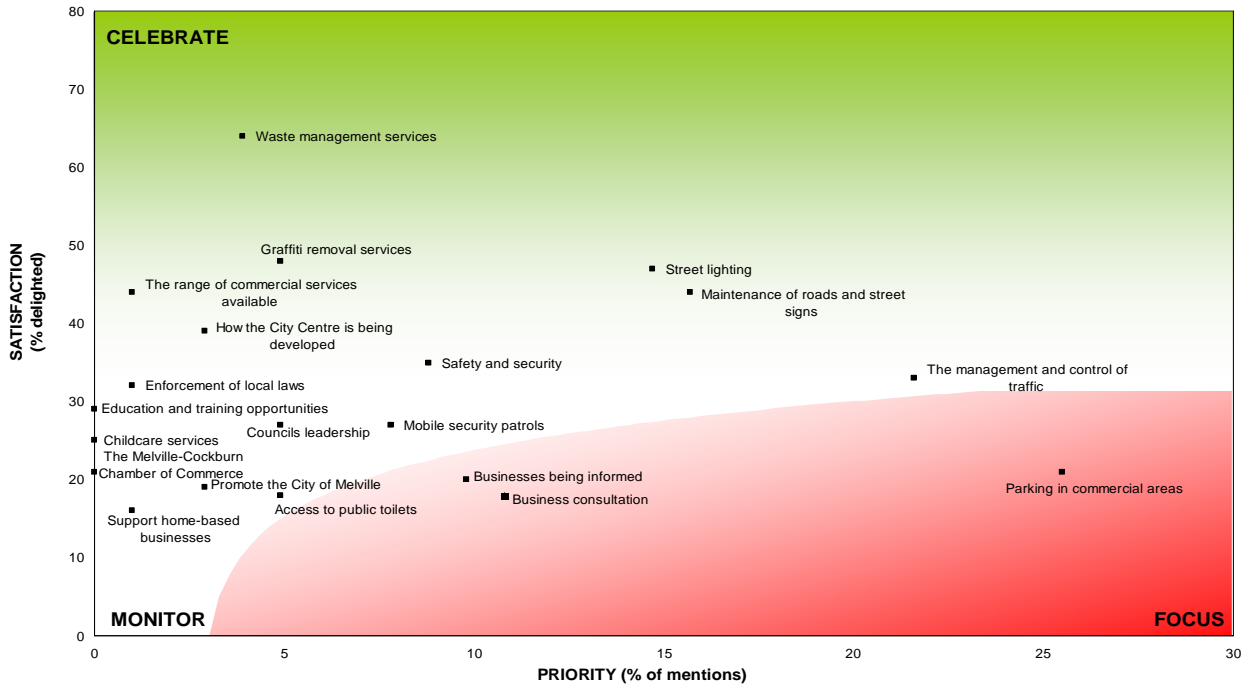
#### 3.1 Customer Research and Expectations

CoM participates in a Community Business and Perceptions Survey every two years and the results are benchmarked against 17 other CoMs in Comparative Performance Measures in Local Government Customer Satisfaction survey. This telephone survey polls a sample of residents on their level of satisfaction with CoM's services.

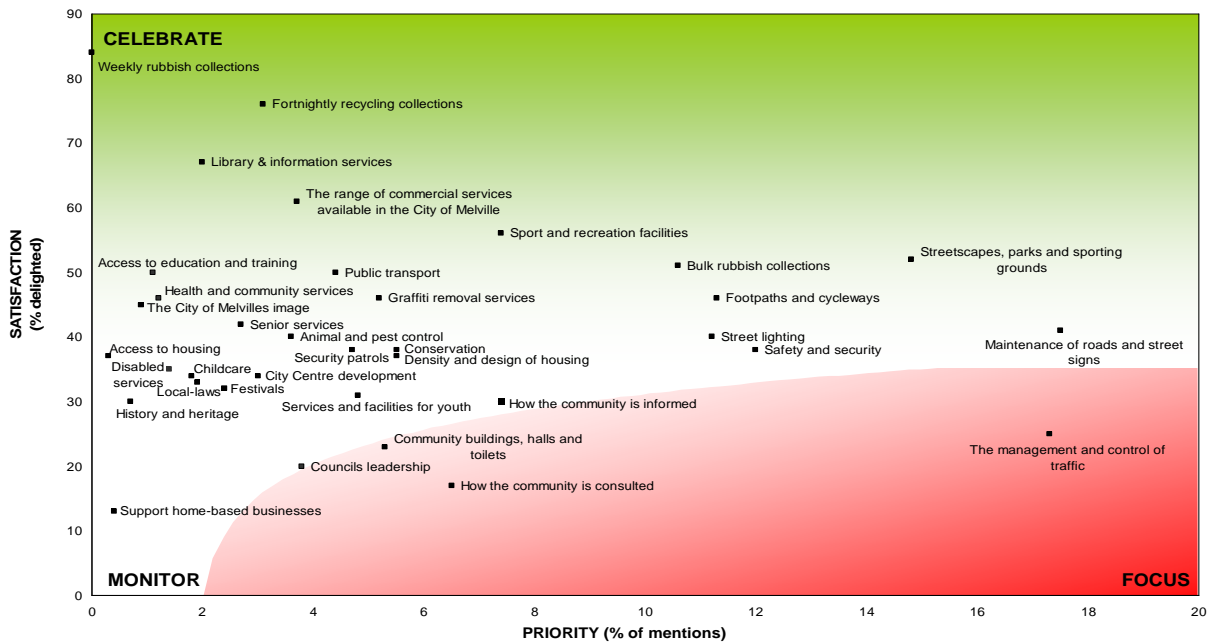
CoM uses this information in developing the Strategic Management Plan and in allocation of resources in the budget. From the most recent survey conducted in October 2007 the results are graphed in the following three diagrams. The graph at 3.1.1 under Environmental Wellbeing shows that the community is highly satisfied with environmental management, streetscapes, parks and sporting grounds.

**Table 3.1.1 Community Satisfaction Survey Levels**



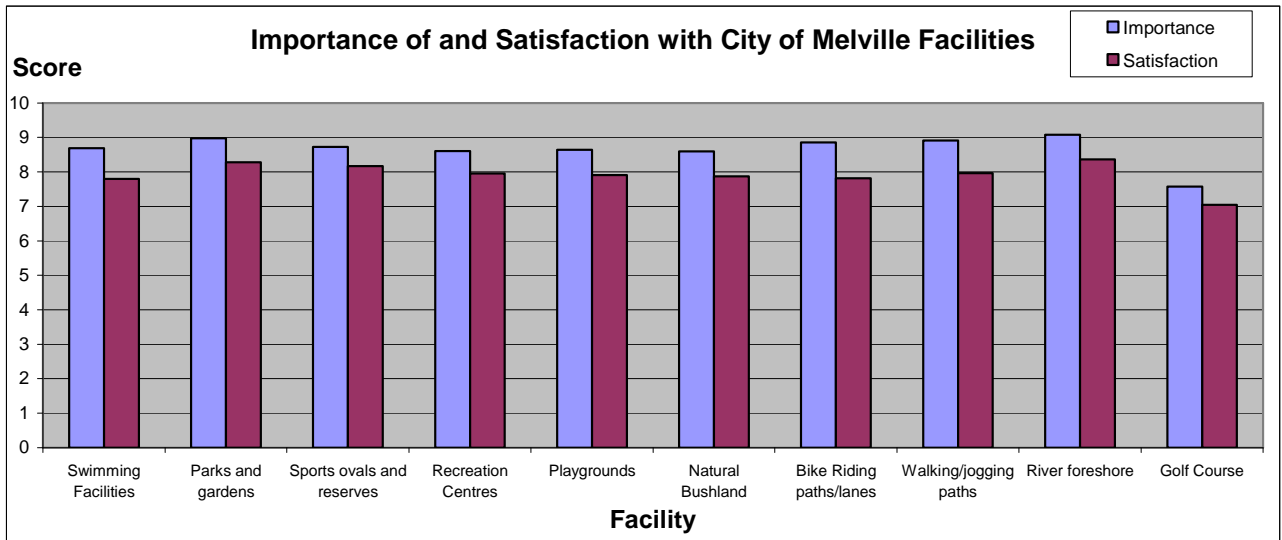


**Table 3.1.2 Community Priorities Indicator (Among Residents)**

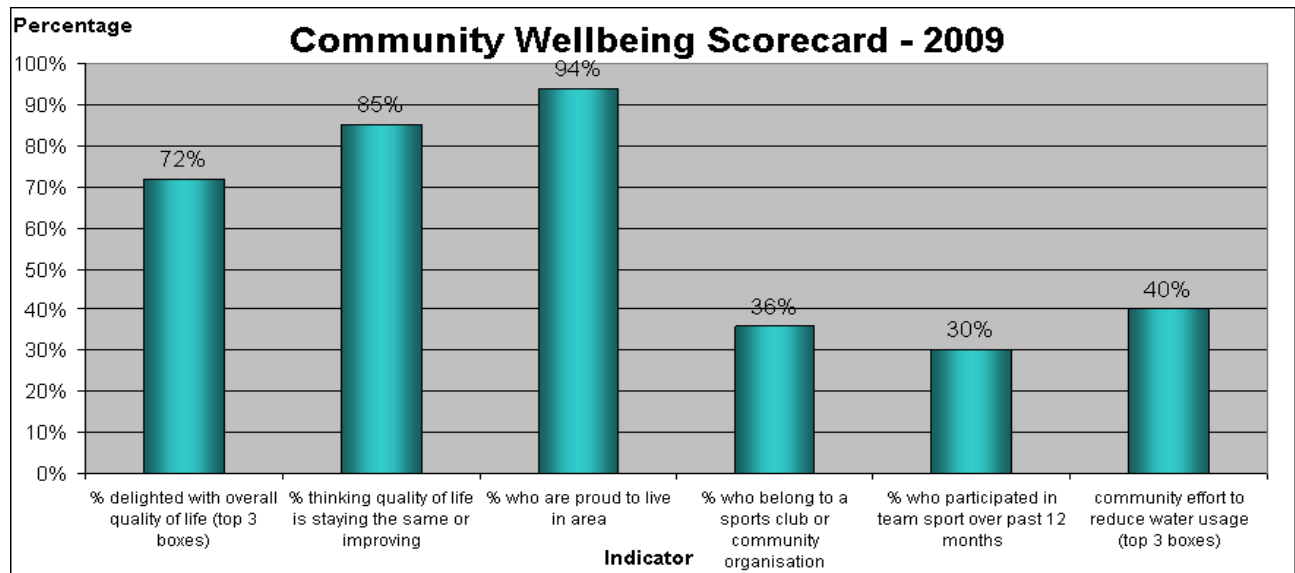


**Table 3.1.3 Community Priorities Indicator (Among Businesses)**

An Active Recreation Needs Assessment was also conducted in 2007 and indicated the following levels of importance and satisfaction to the community and satisfaction with the service.



CoM conducted its very first Community Wellbeing survey in 2009, the elements on the wellbeing scorecard 2009 with relevance to the Parks and Environment service area are shown in the figure below.



### 3.2 Legislative Requirements

CoM has to adhere to many legislative requirements including Federal and State legislation, Acts and State regulations. These include:

Legislation	Requirement
Local Government Act 1995	Sets out role, purpose, responsibilities and powers of local governments including the preparation of a long term financial plan supported by asset management plans for sustainable service delivery.
Rights in Water and Irrigation Act 1914	Licence to take water from the groundwater aquifer for the purposes of irrigation of public open space
Contaminated Sites Act 2003	Current parks are built on former tip and contaminated sites, effects quality of bore water and regulates treatment for contaminated soils
Contaminated Sites Regulations 2006	Current parks are built on former tip and contaminated sites, effects quality of bore water and regulates treatment for contaminated soils
Environmental Protection Act 1986	Require permit and flora survey prior to vegetation removal, relates to the prevention of pollution - either to land air or water. Defines two types of harm - material environmental harm or serious environmental harm.
Environment Protection Act (unauthorised discharges) Regulations 2004	States that pesticides cannot be discharged into the environment.
Agriculture and Related Resources protection (European House Borer) regulations	Regulation 3 all properties within 100m are declared as priority management zones Regulation 9 pinewood timber within priority management zone is required to be destroyed and disposed of.
Aboriginal Heritage Act 1972	Preservation of the community places and objects used by traditional owners
Aboriginal Heritage Regulations 1974	Preservation of the community places and objects used by traditional owners
Agricultural and Veterinary Chemicals Act 1994	Control of certain high toxicity herbicides
Agriculture and Related Resources Protection Act 1976	Control and prevention of certain plants
Biological Control Act 1986	Provision for the Biological control of pests
Dangerous Goods Safety Act 2004	Relates to the safe storage, handling and transport of certain herbicides
Poisons Act 1964	Regulates the possession and use of poisons

Health Act 1911	Discharging causing pollution to waterways
Wildlife Conservation Act 1950	Provides for the conservation and protection of native flora and fauna
Department of Employment & Workplace Relations - Code of Practice - Management of Hazardous Substances (NOH:1994)	Regulates the possession and use of poisons
Swan and Canning Rivers Management Act 2006 (SCRM Act 2006)	Regulates maintenance activities within proximity to the rivers
State Planning Policy 2.10 Swan Canning River System	Regulates maintenance and development projects within proximity to the rivers
Health (Pesticides) Regulations 1956	Regulates the possession and use of pesticides
Bush Fires Act 1954	Regulates the specifications of firebreaks
Road Traffic Act 1974	Laws and legislations surrounding road networks.
Main Roads Act 1930	The power to legislate the maintenance and works on public roads.
Dividing Fences Act	Local government exempt from 50/50 contribution for dividing fences abutting public open space.
Disability Services Act (1993)	An Act for the establishment of the Disability Services Commission and the Ministerial Advisory CoM on Disability, for the furtherance of principles applicable to people with disabilities, for the funding and provision of services to such people that meet certain objectives, for the resolution of complaints by such people, and for related purposes.
Disability Services Regulations (2004)	Current amendments to Disability Services Act (1993)
OSH Act 1984	The guidelines for employees and employers to undertake within the work environment
OSH Regulations 1996	The guidelines for employees and employers to undertake within the work environment

**Table 3.2: Legislative Requirements**

### 3.3 Strategic & Corporate Goals

The City's Asset Management Policy sets out a broad framework to ensure a coordinated corporate approach to asset management within the organisation.

It also provides clear direction in the provision and management of all current City of Melville assets that ensures sustainable outcomes and agreed levels of service, for present and future stakeholders. The policy is to assist with the management of assets and to deliver service that meets community expectations of; time, quality and value for money. Implementation of asset management as an organisational philosophy occurs through the Asset Management Practices Improvement Strategy.

The City (like many local government authorities) has, until recent years, managed its assets on a short term basis utilising the in-house technical knowledge retained by key staff members.

Whilst this approach served the organisation and the community in the past, the City recognises the need to take a business and organisational approach to asset management and one which involves preparing asset management plans and subsequently long term financial plan.

Essentially the corporate goal for Parks and Environment assets is to have a "whole of life cost" approach to the provision and maintenance of parks assets. CoM is committed to the implementation of advanced asset management practices to ensure that the asset service levels are met at the optimum lifecycle cost.

### 3.4 Current Levels of Service

CoM has defined service levels in two ways.

1. Community Levels of Service relate to how the community receives the service in terms of safety, quality, quantity, reliability, responsiveness, cost/efficiency and legislative compliance.
  2. Technical Levels of Service supporting the community service levels to ensure that the minimum community levels of service are met. These technical measures relate to service criteria such as:
    - Quality
    - Quantity
    - Availability
    - Safety
- |  |
|--|
| Smoothness of roads                      |
| Area of parks per resident               |
| Distance from a dwelling to a playground |
| Lost time injury frequency rate (LTIFR)  |

Levels of service were developed in conjunction with officers from administration, technical and community in order to determine community and technical levels of service. The current levels of service attained by the City are detailed in the appendices for each sub category.

### 3.5 Desired Levels of Service

At present, indications of desired levels of service are obtained from various sources including the biennial Customer Satisfaction survey, Delsurv's, residents' feedback to elected members and staff, service requests and correspondence. Additionally staff field expertise and knowledge is critical in this process.

## 4. FUTURE DEMAND

### 4.1 Demand Forecast

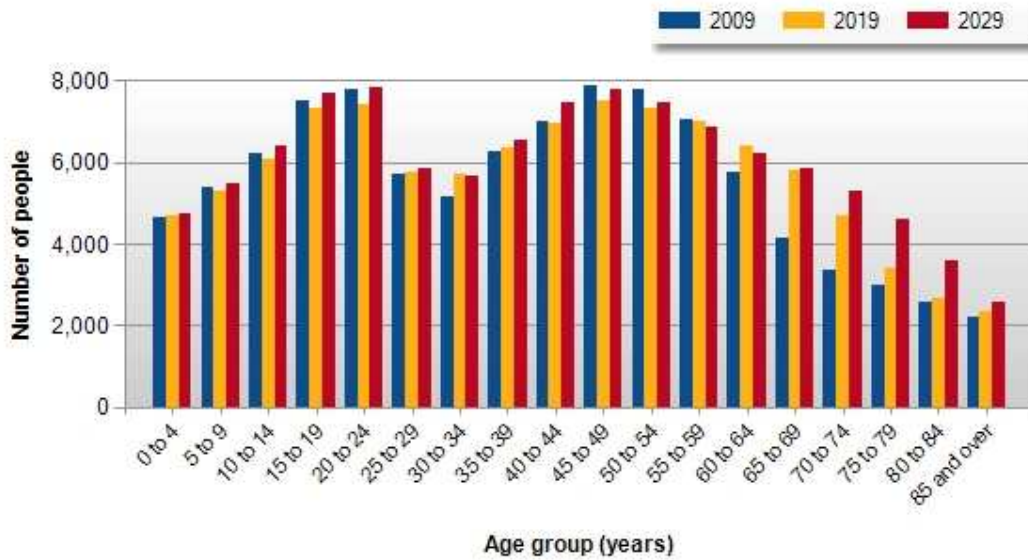
Factors affecting demand include changes in demographics, seasonal factors, vehicle ownership, consumer preferences and expectations, economic factors, agricultural practices and environmental awareness.

Demand factor trends and impacts on service delivery are summarised in Table 4.1.

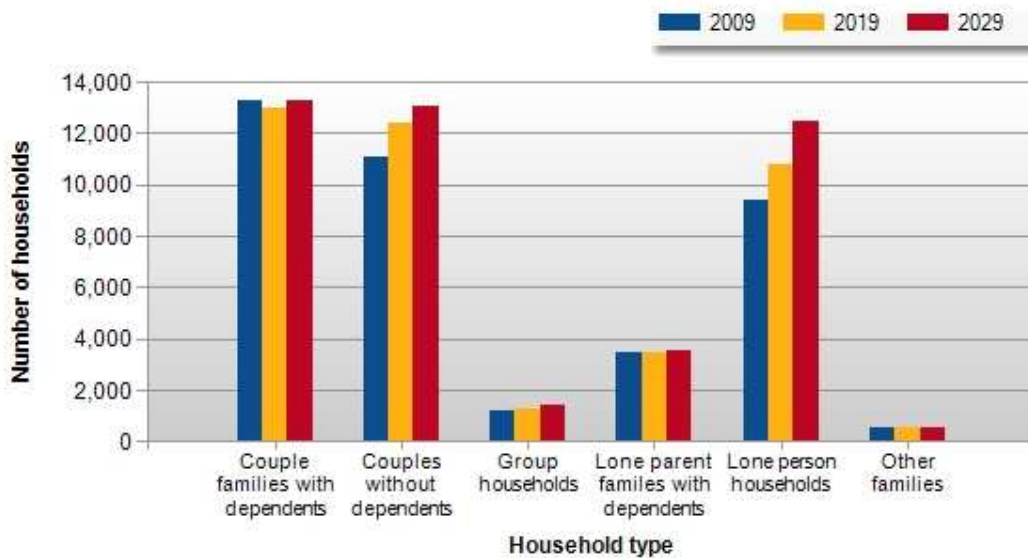
Demand factor	Present position (taken from 2006 ABS Census)	Projection 2031	Impact on services
Population	Current Population as at 30 June 2008: 99,351	Projected growth between Census in 2006 and 2031 is from 99,151 to 108,563  2031 vision – significant growth in Perth Metro population and Commercial requirements  Greater Murdoch development – Fiona Stanley Hospital precinct	Minimal impact on services
Demographics	Analysis of age structure in 2006 compared to the Perth Statistical Division shows a smaller proportion of people in the younger age groups (0 to 17) but a larger proportion of people in the older age groups (60+). 20.3% were aged 60 years and over.	Projected growth in aged population. 28,340 or 26.1% predicted to be over the age of 60 in 2031 an increase of almost 6%.  <b>NOTE:</b> an ageing population will see an increase in people becoming frailer, greater number potentially having a disability and therefore greater demand for universal access.	Minimal impact, however a requirement to increase Universal Access will incur higher costs for asset replacement

**Table 4.1: Demand Factors, Projections and Impact on Services**

City of Melville forecast age structure, (5 year age groups), 2009, 2019 and 2029



City of Melville forecast household types, 2009, 2019 and 2029

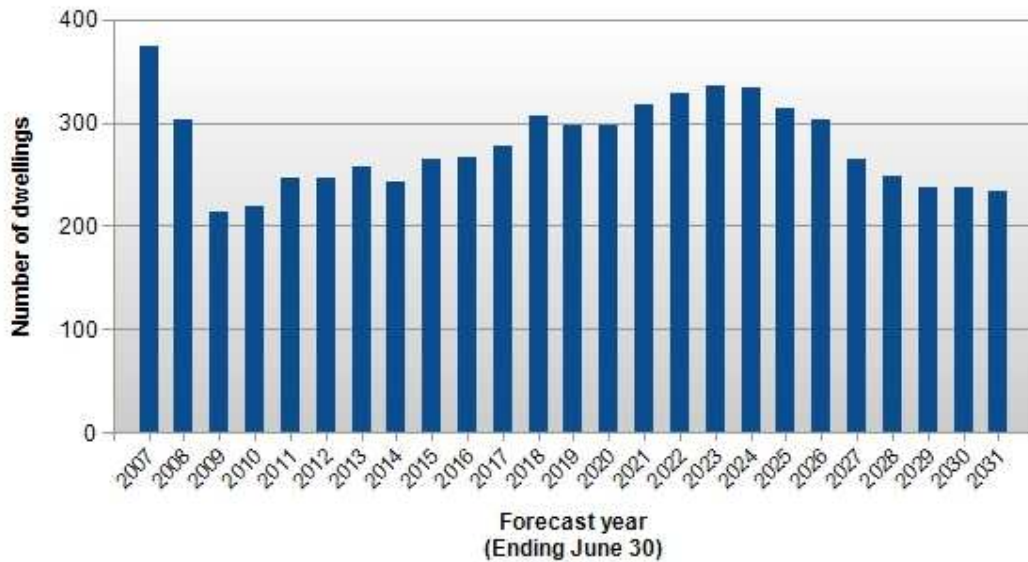


These demographics indicate there will be an increase in age brackets 15-24 and the 60+ age groups. There is an increase in couples without dependents and significant increase in lone person households. This when coupled with a significant increase in seniors aged 65 to 85 could also indicate a greater number of people will require improved access to parks and environment services due to frailty and/or disability. Universal access to facilities will incur a cost to asset provision. These forecasted age demographics in the City of Melville could result in an increased demand for outdoor furniture (e.g. park benches, picnic settings, gazebos, disabled access BBQ's and drinking fountains). The increase in 15-24 yr olds may increase demand for active recreation associated structures (goal posts, active sports turf, and senior sport). Current demand for physical activity is incurring greater demands for maintenance of turf and provision of these services therefore any further increases in demand will need to be monitored closely.

CoM is an established city with infill development occurring within residential streets. Upgrading of the existing housing stock is occurring with the majority of low density residential suburbs located on large blocks. The most recent subdivision in Melville was constructed in the early 1990's in Brentwood, Noalimba.

New medium density dwellings, in the form of units and apartments are being constructed. Possibility for mixed use areas to be developed in the future along key transport corridors and around transit orientated development (TOD's) located at Canning Bridge, Murdoch and Bull Creek train stations, and as part of the Fiona Stanley development may see greater demands on parks and environment services. Proposals form part of the Local Planning Strategy which will be available for public comment during 2010.

City of Melville, assumed new dwelling gain (per annum), 2007 to 2031



**Current Demand**

**Active and Passive Turf**

The City currently has 20 active sporting reserves and one public 9 hole golf course which cater for the following sporting activities: golf, rugby, hockey, lacrosse, netball, basketball, tennis, football and soccer. A focus on health and physical activity has seen a rise in the number of sporting groups and membership in sporting clubs over the past few years. This increase is putting pressure on turf management/maintenance of active turf for structured sports as well as on other parks and environment services. Groundwater allocations, mentioned in the irrigation section will also need to be considered in regards to increased community demand.

Passive turf/reserves is also being used by more people for unstructured physical activity such as walking etc, however this has not been measured, nor the impact identified. Revision of this plan will require further research into this.

Currently the parks annual maintenance plan and groundwater operating strategy determine the service standards for active ensuring the playing surfaces are suitable for each sport whilst enabling multi sport use throughout the season.

The City has 184 passive reserves, four of which could be considered regional passive reserves being Heathcote Reserve, Piney Lakes, Point Walter Precinct and Wireless Hill. The parks annual maintenance plan aligned with the City's groundwater operational strategy determines the service standard for these reserves from 'premier' status (Heathcote Reserve, Applecross) to 'low' status (Ross Park, Winthrop) dependant on the classification of the reserve.

## **Irrigation**

The City has 330 ha of irrigated public open space 304 ha of which is a combination of groundwater (177 parks) and artesian water (2 parks). The City of Melville irrigates 14.8 ha over four reserves with stormwater from two drainage lakes. The City has two central irrigation control systems; Rainman (City wide) and Toro (Point Walter golf course) which allows programming, monitoring and operation of the irrigation from central locations. The irrigation supervisor can schedule irrigation of reserves based on weather stations throughout the city, set rain sensors so the system will shutdown if the weather stations detect rainfall and irrigate based on evapotranspiration rates.

The City has developed a groundwater operating strategy, has a detailed asset register and scheduled replacement program. As per department of water licensing conditions all CoM bores will be metered by June 2010. A report will be submitted to the Department of Water annually detailing groundwater monthly abstraction rates.

It is critical all reviews for additional active and passive open space operate according to the ground water operating strategy. When the aquifer for City of Melville is at capacity the City will not receive additional water volumes to further expand and irrigate additional active and passive turf. The increased demand by the community for use of active turf in particular will need to be managed for both turf maintenance and water allocation.

Currently the irrigation services area is conducting condition audits to ensure the optimum performance of the irrigation system on active and passive reserves. As part of the parks hierarchy approach in response to ground water licence conditions and water budgeting per park, the majority of the irrigation applied at active reserves will be focused on the active playing surface and reduced to the surrounds.

## **Playgrounds**

The City of Melville currently has 137 playgrounds installed on Active and Passive Reserves, Public Open Space and Child Care Centres and 2 playgrounds on bushland reserves.

The City's has four premier playgrounds located at Heathcote, Piney Lakes, Wireless Hill and a new playground is currently under construction at Melville Primary School site and will incorporate a multi age appropriate playground into the design.

Heathcote Reserve has a playground with a theme based around a ship comprising a timber hull, control cabin, various climbing, sliding, and role play activities as well as other individual items including swings and slides. The demand/use of this playground is extremely high and the current replacement value is \$3,500,000. It is due for replacement in 2014.

Renovation works are occurring regularly and it is unlikely that any complete playground would need to be replaced, however community demand/use will need to be balanced with CoM budget priorities to plan for significant staged replacement costs over 2014 – 2016 to maintain standards and meet community expectations.

Piney Lakes Reserve also has regional significance recognised for being the first sensory playground to be established in the metropolitan area. It has been designed to provide a range of sensory experiences including touch, smell and sound catering especially for children who have a disability. This playground is also highly used.

Wireless Hill Reserve also provides a range of playground activities for children as well as a Liberty Swing catering for children in a wheelchair.

Playgrounds within the City of Melville undergo a compliance audit annually by an independent contractor who also conducts regular routine inspections 'in house' to ensure compliance with Australian Standards;

Currently the City of Melville is embarking on a 10 year replacement program for its playgrounds which will require a substantial commitment of funds and resources to maintain its playgrounds to the expected standard.

### **Structures/Outdoor furniture**

The City has a number of structures and outdoor furniture in its natural areas and on active and passive reserves including BBQ's, gazebos, park furniture, bollards, drink fountains, cricket practice nets, tennis courts, basketball courts, BMX tracks and more. The demand for these structures is linked to the demographics of the area and associated function of the reserve. outdoor furniture that is placed on streetscapes such as bins, benches and bus shelters have not been considered as part of this plan.

### **Road Reserves/Streetscapes**

Section 1.01 The current demand for streetscapes is associated to aesthetics and the community participating in unstructured physical activity such as dog walking, jogging etc in this environment.

Details of the value and condition of road reserves and streetscapes are minimal. For the purpose of this plan we have limited the asset register to roundabouts, verges and medians along main arterial and corridor roads. The value has been based on the landscaping elements only; trees, kerbing, outdoor furniture and lighting have not been included.

### **Trees**

This plan has considered verge trees only, as an asset register for verge trees was established 10 years ago. While a condition rating and update of the register has not occurred since, the Arboricultural team have used this register as a baseline to work from and have a high level of technical expertise to enable completion of an updated register for the purpose of this plan. For future plans decisions will be made in regards to including streetscape trees and trees within parks and natural areas as part of a comprehensive update of the current asset register and condition rating.

The City has 31,085 trees on its verges. As the City is well established it has a number of older, mature, developed trees within it. Demand for street trees is declining due to conflict with development, unauthorised pruning, poisoning and removal due to many factors including leaf litter, impediment to river views, root damage etc. The City has a number of suburbs where street trees enhance the aesthetics of the streetscape environment, particularly where underground power has been provided (e.g. Bicton, Applecross). The main species planted throughout the City include, Eucalyptus, Queensland Box, Jacaranda, *Agonis flexuosa*, London Plane, Callistemon, Casuarina, Eucalyptus ficifolia, Tipuana and Sapium. The oldest plantings were in 1930 in some of the older suburbs such as Mt Pleasant and Applecross.

An education process is required with the community so residents appreciate the benefits street trees provide to the environment instead of the social inconveniences they create (e.g. leaf litter).

### **Natural Areas**

The City of Melville maintains approximately 250 ha of natural areas and an additional 14 ha of foreshore areas. These natural areas contain diverse species including dry land and wetland species endemic to Perth. Most of the natural areas within the City face degradation issues such as the introduction of exotic plants, pests and diseases. The City's foreshore areas are highly utilised, high impact areas with unforeseen wash outs and erosion issues constantly occurring.

Natural Areas are valued and managed using a hierarchical system developed in 2002. This system determines if natural areas are a priority 1; 2 or 3.

Priority 1 areas have the best quality bushland in terms of over storey and understorey, and are likely to have green links, be listed in a bush plan and have an active Friends Group. They have low disturbance to the good bushland and low amounts of weeds. Reserves listed as priority 1

include Harry Sandon, Bull Creek, Bateman, Wireless Hill, Quenda Wetland, Blue Gum, Piney Lakes, George Welby, Peter Bosci, Robert Weir, Richard Lewis, Ron Carroll, Heathcote, Ken Hurst, Point Walter, Wal Hughes, Harry Stickland, Phillip Jane, Beasley, Dudley Hartree, Booragoon lake, Peter Ellis and Blackwall Reach.

Details regarding Level 2 and 3 natural areas can be found in the Appendix for Natural Areas.

#### 4.2 Changes in Technology

Technology changes are forecast to have little effect on the delivery of services covered by this plan. Changes related to climate change, energy consumption and water usage (bore, artesian and scheme) are subject to ongoing investigation and review. Significant impacts will be qualified in future revisions of this PEAMP.

Relevant changes in Technology include software changes, inaccessibility due to networking and backup information could result in the reduction of efficiency of a central managed irrigation system used to forecast irrigation scheduling on evapotranspiration rates.

Technology Change	Effect on Service Delivery
Central Irrigation controller software	Loss of management using central irrigation system.  Loss of evapotranspiration scheduling for active and passive reserves.
Radio licence to dial into reticulation controller using mobile phone or VNC	Loss of control of remote control function.
Archibus software Asset Registers	Loss of data
Creation of new weed control technologies, e.g. selective pesticides	Enhance and improve delivery of services
Rehabilitation and Revegetation Sciences (i.e. smoke water, direct seeding, and soil studies)	Enhance and improve delivery of services
Pathogen treatment technologies, e.g. dieback	Enhance and improve delivery of services
Foreshore management, e.g. erosion studies, improved restoration techniques	Enhance and improve delivery of services
Increased understanding of climate change effects and required management techniques	Enhance and improve delivery of services

#### 4.3 Demand Management Plan

Demand for new services will be managed through a combination of managing existing assets, upgrading of existing assets and providing new assets to meet demand and demand management. Demand management practices include non-asset solutions, insuring against risks and managing failures.

Comments in regards to each sub-category and potential future demands are made below.

Opportunities identified to date for demand management are shown in Table 4.3. Further opportunities will be developed in future revisions of this asset management plan.

### **Reserves/ Turf Active and Passive**

The Parks annual maintenance plan determines the service required to meet the demand for active and passive reserves. This document is reviewed annually to ensure it continues to provide a high level of service and continues to be the main tool used in determining the requirements of the user groups with regard to utilisation of active and passive turf.

The Health and Lifestyle Services area is responsible for controlling the booking requirements of the active and passive reserves and the allocation of particular sports to the most appropriate reserves. The Community Recreation service area conducts biannual surveys with winter and summer sports to forecast demand and facilities required by sporting clubs.

### **Irrigation**

There is an increased demand for application of irrigation to playing surfaces due to increased physical activity and a growing number of sporting groups. As mentioned earlier in this plan sporting groups are reporting increased memberships therefore the impact of higher traffic on our reserves has required a focus on improving irrigation and turf management of our active reserves. Water Allocation Strategy will require us to manage water resources by irrigating active surfaces only and not to surrounds. A focus on well being and health has also seen increased use of passive reserves for unstructured physical activity therefore increased demand for irrigated public open space for passive recreation.

### **Playgrounds**

Increased demand for outdoor exercise equipment as well as playgrounds. Increased demand for rubber softfall to replace sand as a safer option. Fencing to improve safety and shade structures over playgrounds due to UV exposure.

### **Structures/Outdoor Furniture**

Increased demand for shade protection structures. Increased demand for seating with an ageing population and universal access seating. Increased demand for BBQ's due to decreasing sizes of backyards and encouragement of increased community participation. Increased demand for universal access structures due to an ageing population.

### **Road Reserves/Streetscapes**

Requirement for increased streetscape landscaping is likely in the future due to increasing traffic on key arterial and corridor roads in conjunction with the implementation of the City's Streetscape Strategy, currently in draft. Developments such as Fiona Stanley precinct in Murdoch will require significant resources to maintain streetscape landscaping. Traffic management specifications (outlined in the Traffic Management Act) are likely to increase in the future resulting in further increases in operational funds required to manage.

Due to a drying climate, increasing cost of scheme water and associated maintenance it is likely alternatives to soft landscaping such as synthetic turf, liquid limestone, mulching or ferracrete will be used. These treatments attract a higher initial cost than soft landscaping treatments, but may result in reduced maintenance costs.

### **Trees**

Increased demand for suitable species of trees on verges due to shade and drying climate. The commencement of the street tree audit, updating the asset register and condition rating will assist with the development of a street tree planting strategy, which is essential to manage future demand.

## Natural Areas

Increased demand for restoration of bushland areas, with consistent feedback from the community about valuing of the natural areas. There is also a focus on fire load reduction.

Service Activity	Demand Management Plan
Parks Services Area Plan ➤ Completed	Review of Corporate Plan conducting SWOT analysis key actions for Parks and Environment 2009/2010 -2011/2012.
Public Open Space Strategy ➤ Under review	Classification and review of Public Open Space distributed throughout the City. Identifies shortfall and excess Public Open Space per suburb and forecasts proposals for uniformity.
Playground rationalisation strategy ➤ To be developed	Review of Playground compliance audit including current location of structures, condition, growth areas and rationalisation to accommodate service changes.
Park Hierarchy ➤ To be developed	Classification of Parks based on water requirement for activities within Active and Passive reserves
Parks Projects prioritisation matrix ➤ To be developed	Rationalisation of proposed parks capital works projects in line with objectives of corporate plan and public open space strategy.
Landscape capital works prioritisation matrix and database ➤ To be developed	Rationalisation of proposed landscape capital works projects in line with objectives of corporate plan and public open space strategy.
Parks Annual Maintenance plan ➤ Completed	Indicates all forecasted maintenance works within Parks.
Recreation Needs study ➤ Require review	Evaluation of current sporting groups, facilities required by clubs, forecast expansion over 10 year period.

**Table 4.3: Demand Management Plan Summary**

### 4.4 New Assets from Growth

As Melville is an established City there are no new assets due to population growth, subdivisions or proposed acquisition. Demand will be met by the management, renewal or upgrading of existing assets. The associated future costs will be identified and considered in developing forecasts of future operating and maintenance costs and included in future revisions of this asset management plan.

It is identified that there will be additional assets in the classes of Passive Turf, Irrigation, Playgrounds, Structures/Outdoor Furniture and Streetscapes, as a result of the development within the Fiona Stanley Precinct (Murdoch), Carawatha (Willagee) and Melville Primary School (Willagee) as well as capital works for existing active and passive reserves. The size and scale of these projects will have a significant impact on the City's resources.

Acquisition of these new assets will require CoM to commit to fund ongoing operations and maintenance costs for the future life of these additional assets. These future costs will be identified and considered in developing forecasts of future operating and maintenance costs in future revisions of this PEAMP.

## 5. LIFECYCLE MANAGEMENT PLAN

The lifecycle management plan details how CoM plans to manage and operate the assets at the agreed levels of service (defined in section 3) while optimising life cycle costs.

### 5.1 Background Data

Lifecycle Management plan is not currently adhered to formally at the City of Melville.

#### 5.1.1 Physical parameters

The assets covered by this PEAMP are shown below.

<b>Reserves/Turf (Active and Passive)</b>	330 ha comprising 210 reserves; 26 active and 184 passive
<b>Road Reserves/Streetscapes</b>	Roundabouts; verges and medians on key arterial and corridor roads
<b>Natural Areas</b>	264 ha of Natural Areas comprising of 229.73 ha (Priority 1); 14.36 ha (Priority 2) ; 12.29 ha (Priority 3) and foreshore areas 14 ha
<b>Irrigation</b>	198 sites
<b>Trees (verges)</b>	31,085 trees
<b>Structures/Outdoor Furniture</b>	Fencing; gates; bollards; park benches; picnic settings; drink fountains; gazebos; barbecues; cricket practice nets, basketball courts, netball courts, bin posts, park naming signs etc

#### Reserves - Active and Passive Turf

Reserves are subject to scheduled turf renovation. This increases the life of the asset and turf is not necessarily replaced at the end of its life. Comments in regards to increased use of reserves have been mentioned earlier.

#### Irrigation

Irrigation asset condition is conducted annually in order to develop the following financial years capital works program. A scheduled pump maintenance program is being developed in order to develop the pump replacement schedule.

#### Playgrounds

Asset life for playgrounds has been extended from 10 years to 15 years due to improved maintenance schedules and to meet planned budget resource limits. Location of playgrounds in proximity to waterways could decrease the asset life due to premature rusting. Alternatively in locations close to waterways stainless steel or aluminium structures could be erected to extend the asset life.

Heathcote is one of the City's premier playgrounds. This is a large custom timber structure that requires annual funding to undertake structural maintenance. Heathcote has a current replacement cost of \$3.5 million, and is due for replacement in 2014, however it is not intended to fully and completely replace the playground at this cost. Budget planning for staged replacement of elements could be developed otherwise additional funding will be required if the City wishes to replace the existing assets with an equivalent structure.

### **Structures/outdoor furniture**

The City has previously purchased Kleenheat BBQ plates. It has been noted that these plates only last 2 years before they warp. Estimated plate replacement cost is \$900 per plate. This increases the annual maintenance and whole of life cost of the BBQ asset. Research of a more cost effective replacement item is required.

The City is changing from timber park furniture to aluminium and recycled plastic furniture. This results in a significant cost reduction in maintenance.

### **Road Reserves/Streetscapes**

The City has previously had a maintenance budget associated with landscape capital works projects which was not endorsed for 2009/2010 budget. This forecast maintenance budget is essential in order to maintain the asset in the financial year it is created.

Temporary water meters have been installed as part of landscape capital works projects in the past; however this results in a permanent meter being installed at an additional cost of \$3,500 which is often not budgeted for. Design has incorporated this figure into the proposed irrigated capital works projects for 2010/2011.

### **Trees**

Previously street tree pruning was undertaken on a reactive basis. The City has restructured and developed an Arboricultural team who proactively prune all street trees throughout the City.

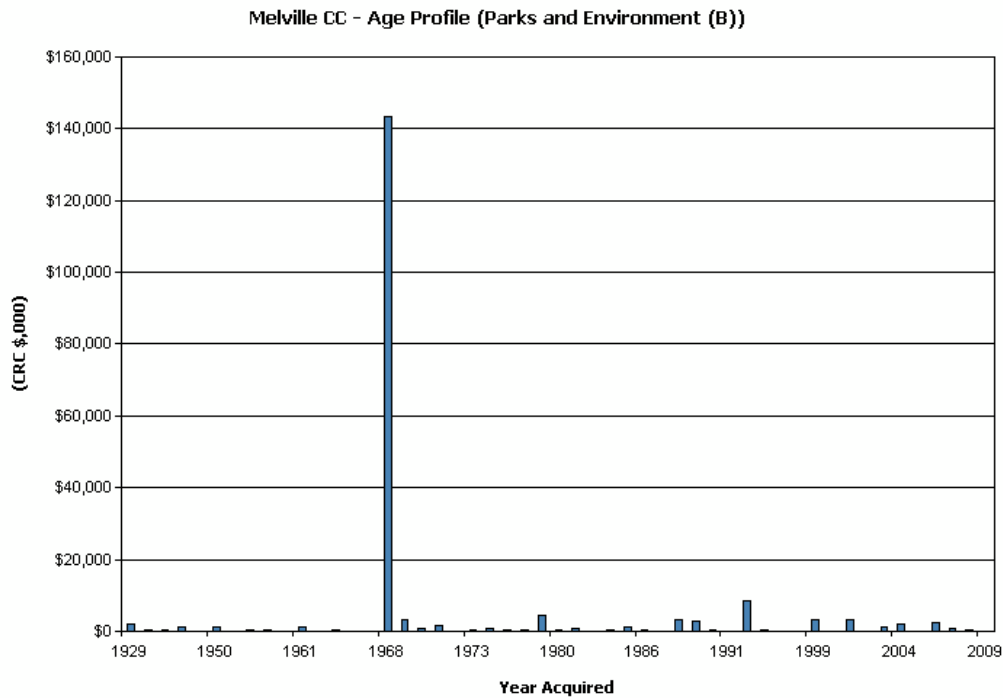
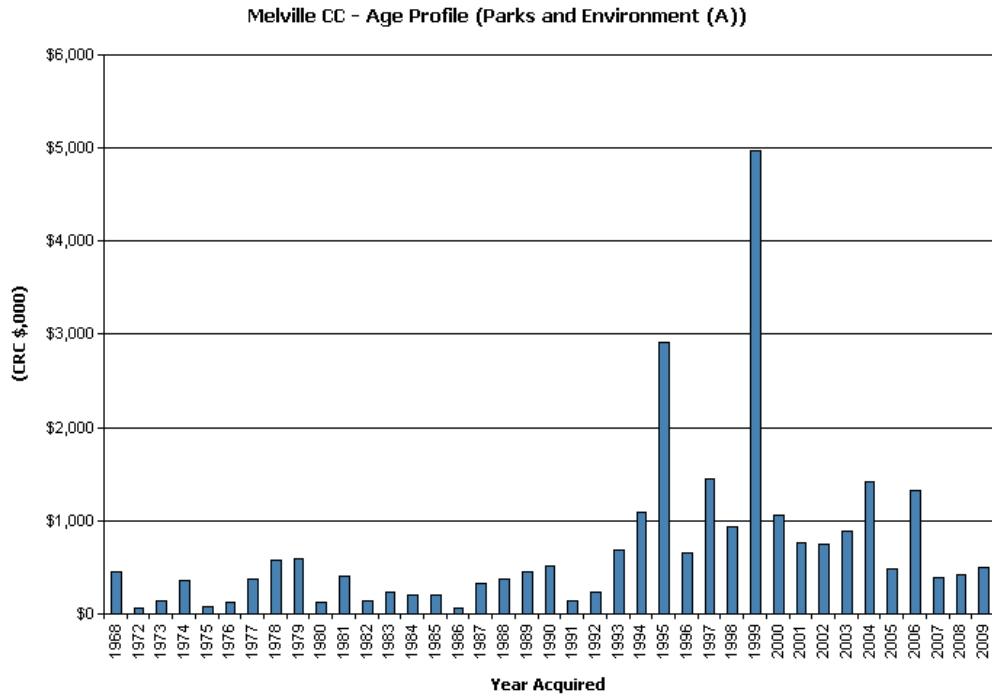
### **Natural Areas**

The City of Melville maintains approx 250 ha of natural areas and an additional 14 ha of foreshore areas. These natural areas contain diverse species including dryland and wetland species endemic to Perth. Most of the natural areas within the City face degradation issues such as the introduction of exotic plants, pests and diseases. The City's foreshore areas are highly utilised high impact areas with unforeseen wash outs and erosion issues constantly occurring.

Natural Areas are valued and managed using a hierarchical system developed in 2002. This system determines if natural areas are a priority 1, 2 or 3.

Priority 1 areas have the best quality bushland in terms of over storey and understorey, and are likely to have green links, be listed in a bush plan and have an active Friends Group. They have low disturbance to the good bushland and low amounts of weeds. Reserves listed as priority 1 include Harry Sandon, Bull Creek, Bateman, Wireless Hill, Quenda Wetland, Blue Gum, Piney Lakes, George Welby, Peter Bosci, Robert Weir, Richard Lewis, Ron Carroll, Heathcote, Ken Hurst, Point Walter, Wal Hughes, Harry Stickland, Phillip Jane, Beasley, Dudley Hartree, Booragoon lake, Peter Ellis and Blackwall Reach.

### Age Profile



The remaining life of Parks and Environment assets assumes that limited major refurbishment will occur. In practice assets, particularly non-depreciable assets such as reserves/turf, natural areas and road reserves/streetscapes, will have their useful lives extended 'indefinitely' by refurbishment or renewal of major components to meet current and changing operational and community needs.

**5.1.2 Asset capacity and performance**

CoM's services are generally provided to meet design standards where these are available. Locations where deficiencies in service performance are known are detailed in Table 5.1.2.

Location	Service Deficiency
Reserves/Turf (Active and Passive)	Quality of turf is not uniform across all reserves, particularly active turf due to the following: heavy sporting traffic; increased physical activity; growing sporting clubs; lack of maintenance windows between summer and winter sports; poor water and soil quality.
Irrigation	Two bores have collapsed during 2009/2010. Two reserve infield components had to be totally replaced due to winter sprinkler bans and assets nearing the end of their life 2009/2010. As many irrigation assets are ageing the potential for other failures before they have been identified as requiring replacement may occur in the next few years.
Playgrounds	Previously annual compliance inspections budget was inadequate and Internal untrained operators were conducting maintenance inspections. This has now been rectified.
Structures/Outdoor Furniture	BBQ cleaning tender and replacement program commenced in 2009. Formal park furniture replacement program.
Road Reserves/Streetscapes	Reactive residential verge maintenance on request.
Trees	Reactive street tree pruning program on request.
Natural Areas Planned Maintenance	Currently 20% of reserves have no maintenance performed on them.
Natural Areas Planned Maintenance	Of the 52 Natural Areas, approximately 60% are maintained below standards
Natural Areas Planned Maintenance	Targets and actions within Natural Area Management Plans are not being completed; actions for the CoM endorsed Management Plans are under resourced.
Natural Areas Planned Maintenance	Of 18km of foreshore, approximately 50% is maintained below standards
Natural Areas Reactive Maintenance	Currently 60% of foreshore restoration works is reactive maintenance.
Natural Areas Planned Renewal	Targets and actions for the CoM endorsed Foreshore Restoration Strategy have not been completed and are under resourced.

**Table 5.1.2 Known Service Performance Deficiencies**

The above service deficiencies were identified from Parks and Environment Service Area Plan, Parks Annual Budget 2009/2010, 2009/10 Environment Annual Budget and individual Management Plans for Natural Areas.

### 5.1.3 Asset condition

A condition rating is currently carried out on natural areas, playgrounds and irrigation. The condition rating for Irrigation is currently located in Archibus Asset Management system.

The playground condition rating is part of Appendix 1 F

Active and passive turf, structures, streetscapes and trees were condition rated on the basis of good, average or poor and an interpretation was conducted on revised useful life by field staff with significant expertise and knowledge of these assets. Future revisions of this plan will require a comprehensive asset condition report to be undertaken for all assets.

Playgrounds were assessed by an independent consultant in terms of compliance with Australian standards. A City of Melville Officer and the City's playground maintenance contractor undertook condition assessments by undertaking site inspection and determining residual life.

A consistent approach to Asset Condition rating across all CoM Assets has been identified as part of the improvement Plan and it is proposed that a common rating system be used as outlined below:

Condition is measured using a 1 – 5 rating system.<sup>2</sup>

- 1 **Excellent.** As new and structurally sound. No evidence of deterioration, damage or discoloration. Fully functional and fit for purpose. Excellent appearance. No work required.
- 2 **Good.** Structurally sound. Minor deterioration, discoloration and wear to surfaces. Fully functional and fit for purpose. Good appearance. Few customer concerns. Only minor work required.
- 3 **Average.** Minor cracking in structural elements. Minor deterioration, discoloration, wear or damage to surfaces. Minor evidence of weatherproof breaches, dampness or mildew. Fittings generally operational with minor breakages or defects. Functional but occasional restrictions on use. Deterioration affecting appearance. Some customer concerns. Some work required.
- 4 **Poor.** Structure functional but signs of significant cracking or distortion. Breaches of weatherproofing evident. Surfaces in need of significant repair or replacement before recoating or painting. Fixtures often inoperable or damaged. Services have limited function with frequent failures. Appearances affected by cracking, staining, overflows or breakages. Regular customer complaints. Some replacement/ rehabilitation needed within 1-2 years.
- 5 **Failed.** Structures have serious problems and the integrity of structure is questionable, serious cracking, distortion, leakages or breakages compromising operation and/or safety. Coatings badly damaged or non existent. Fittings unsafe or inoperable. Structure is generally not fit for purpose or for use by customers. Urgent replacement/ rehabilitation required.

### 5.1.4 Asset valuations

The value of assets as at 30 June 2009 covered by this PEAMP is summarised below. Depreciable Assets were last re-valued at 30 June 2009. Non-depreciable assets have been valued on methods as outlined in the Assumptions Section 8.

---

<sup>2</sup> IIMM 2006, Appendix B, p B:1-3 ('cyclic' modified to 'planned')

<b>DEPRECIABLE ASSETS (A)</b>			
	Current Replacement Cost	Depreciated Replacement Cost	Annual Depreciation Expense
Playgrounds	\$7,021,000	\$958,000	\$130,000
Irrigation	\$11,236,000	\$4,457,000	\$571,000
Structures/street furniture	\$8,610,000	\$5,070,000	\$308,000
	<b>\$26,867,000</b>	<b>\$10,485,000</b>	<b>\$1,009,000</b>

<b>NON – DEPRECIABLE ASSETS (B)</b>		
Asset	Current Replacement Cost	Average Annual Asset Cost
Natural Areas	\$126,929,000	\$1,809,000
Reserves – Turf passive and active	\$37,975,000	\$817,000
Road reserves / streetscapes	\$18,028,000	\$1,247,000
trees	\$12,434,000	\$182,000
<b>TOTAL</b>	<b>\$195,366,000</b>	<b>\$4,055,000</b>

## 5.2 Risk Management Plan

The City has a documented framework for Risk Management which has a rigorous and structured Risk Identification and assessment process. This process evaluates the Risks identified and enables the level of risk to be determined. From this the appropriate risk treatments can be determined and where required can be incorporated into the Planning for service delivery of Infrastructure assets. These Risks and the associated Treatment Plans are to be incorporated in the asset planning process via our Business Planning Procedure.

A Risk Register using the NAMS template was completed by officers and has been included in the Appendices for each sub-category, however this will be refined in line with our Business Planning Procedure once established for the organisation and a central register will be in place.

## 5.3 Routine Maintenance Plan

Routine maintenance is the regular on-going work that is necessary to keep assets operating, including instances where portions of the asset fail and need immediate repair to make the asset operational again.

### **Reserves/Turf (Active and Passive)**

The City's annual maintenance plan determines the frequency and type of maintenance for its reserves. The plan depicts maintenance such as;

Turf mowing → Active (summer weekly, winter fortnightly)  
→ Passive (every three weeks)

Turf renovation → Annually in September and December

### **Irrigation**

The City's irrigation maintenance plan determines the frequency of irrigation maintenance for its reserves. Inspections are carried out weekly (active reserves) and every three weeks (passive reserves) on the operational aspects of the irrigation system. It takes approximately 3 weeks to complete a complete cycle.

The inspections identify minor and major faults for rectification. Scheduling is critical in order to accommodate capital works programs, turf renovations, conflict with capital works and events, asset condition audit, flow meter testing and readings and winter maintenance.

### **Playgrounds**

Playgrounds are compliance audited annually. Routine maintenance inspection is undertaken six monthly. A component of the parks audit on a three weekly basis is a 'shake rattle and roll' inspection by the parks maintenance team with repairs indicated on the parks checklist. Senior Horticulturalists have tools to undertake basic repair and maintenance. All compliance inspections and repairs are documented on Recreation Safety Audit software located on the City's I.T. system.

Sand soffit is scheduled for a monthly, quarterly or six monthly filter and top up. Frequency is dependant on the use of the playground in hand with antisocial activity, proximity to trees and quantity of animal excrement.

### **Structures/Outdoor furniture**

BBQ cleaning occurs weekly or bi weekly; Shade sails are erected/dismantled twice a year as per the season; Street furniture is scheduled for annual maintenance and the condition is monitored as part of regular reserve maintenance inspections; Drinking fountains are scheduled for annual maintenance; Rubbish bin surrounds are scheduled for a monthly wash down.

### **Road Reserves/Streetscapes**

The City's streetscape maintenance plan outlines the frequency of streetscape maintenance for streetscapes, verges, public access ways, community halls and centres and roundabouts. Contract spraying, tree watering (internal and external) and minor infill planting is incorporated into the schedule. The streetscape maintenance team are responsible for the following; 23 ha key arterial and corridor verge maintenance; 67 ha key arterial and corridor roads median strip landscaping; 220 ha residential verge maintenance; 112 landscaped roundabouts; 157 Public Access Ways (PAW's) City wide; Numerous City owned buildings, car parks, verge treatments and slow points. For the purpose of this plan the focus has been roundabouts, medians and verges on arterial roads and corridor roads only.

The City also conducts median maintenance as a contractor on behalf of Main Roads.

### **Trees**

The City's street tree maintenance plan outlines the frequency of street tree maintenance for street trees. Reactive maintenance is carried out by a specific crew and scheduled planned maintenance is undertaken by crews operating in three areas across the City. The crews undertake standard tree maintenance including canopy lifting and condition assessments. The City also has a street tree power line pruning tender and an amenity pruning and chipping tender which has scheduled pruning works.

### **Natural Area**

Natural Area Routine Maintenance is carried out on a monthly cycle.

#### **5.3.1 Maintenance plan**

Maintenance includes reactive and planned maintenance work activities. For the purpose of this Core PEAMP we have not identified any cyclic maintenance.

Reactive maintenance is unplanned repair work carried out in response to service requests and management/supervisory directions.

Planned maintenance is repair work that is identified and managed through a maintenance management system (MMS). MMS activities include inspection, assessing the condition against failure/breakdown experience, prioritising, scheduling, actioning the work and reporting what was done to develop a maintenance history and improve maintenance and service delivery performance. This is where we have identified the majority of our maintenance costs and we have included labour costs into this as per reserve and budget allocations.

Cyclic maintenance is a replacement of higher value components/sub-components of assets that is undertaken on a regular cycle including repainting, building roof replacement, etc. This work generally falls below the capital/maintenance threshold and has not been identified for the purpose of this plan.

Future revisions of the plan in line with the budget process may identify specific budget amounts for the purpose of cyclic maintenance separate from planned/scheduled maintenance which is where we currently factor all maintenance costs into.

The table below outlines how we currently respond to maintenance requirements.

<b>Reserves/turf (Active and Passive)</b>	
Reactive	Pathway requests
Planned	Turf renovation program, parks maintenance plan.
<b>Irrigation</b>	
Reactive	Pathway requests
Planned	Capital works program, flow meter tests, irrigation ledger from maintenance plan
<b>Playgrounds</b>	
Reactive	Pathway requests
Planned	Compliance inspection, capital replacement program; Refurbishment of playground structures, rust proofing, removal of part of structure.
<b>Structures/outdoor furniture</b>	
Reactive	Pathway requests
Planned	Parks audit; maintenance of timber park furniture
<b>Road reserves/Streetscapes</b>	
Reactive	Pathway requests
Planned	Streetscape maintenance plan
<b>Trees</b>	
Reactive	Pathway requests
Planned	Street tree maintenance plan, contract street tree maintenance plan; chemical injection of pesticides
<b>Natural Areas</b>	
Reactive	Pathway requests
Planned	Natural Area maintenance plan, weed spraying programme, annual seedling/revegetation program.

Note: pathways is the City's customer request system

Maintenance expenditure trends are shown in Table 5.3.1

Year	Maintenance Expenditure			
	Reactive	Planned	Cyclic	Current Replacement Cost
2008/09				
ASSET SUB-CATEGORY	\$	\$	\$	
Depreciable (A)		1,021,000	0	26,867,000
Non-depreciable (B)	1,035,000	5,747,000	0	195,366,000
<b>Sub Total</b>	<b>1,035,000</b>	<b>6,768,000</b>	<b>0</b>	<b>222,233,000</b>
			0	
Irrigation		340,000	0	11,236,000
Playgrounds		168,000	0	7,021,000
Reserves/turf		3,157,000	0	37,975,000
Road Reserves/streetscapes		1,337,000	0	18,028,000
Structures/outdoor furniture		513,000	0	8,610,000
Trees	908,000	745,000	0	12,434,000
Natural Areas	127,000	508,000	0	126,929,000
<b>TOTAL</b>	<b>1,035,000</b>	<b>6,768,000</b>	<b>0</b>	<b>222,233,000</b>

**Table 5.3.1: Maintenance Expenditure Trends**

Planned maintenance work is 91.3% of total maintenance expenditure.

Maintenance expenditure levels are considered to be inadequate to meet required service levels. Currently assessment and prioritisation of planned and reactive maintenance is undertaken by CoM staff using experience and judgement.

However an Advanced PEAMP will include a comprehensive asset register and condition reports as well as levels of service based on input from the community. This will enable accurate analysis of maintenance budgets required to adequately meet required service levels.

Furthermore as part of the improvement plan an asset management system that directly links to the financial system will also improve our ability to monitor and analyse appropriate expenditure on assets.

**5.3.2 Standards and specifications**

Maintenance work is carried out in accordance with the following Standards and Specifications.

Department of Sport and Recreation 1985 Sport dimensions for playing areas
Main Roads Landscape specification

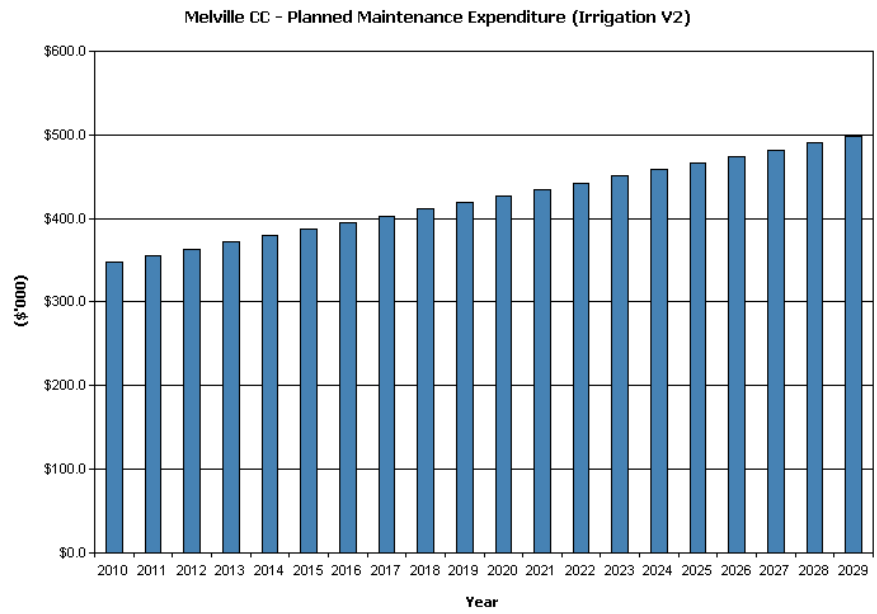
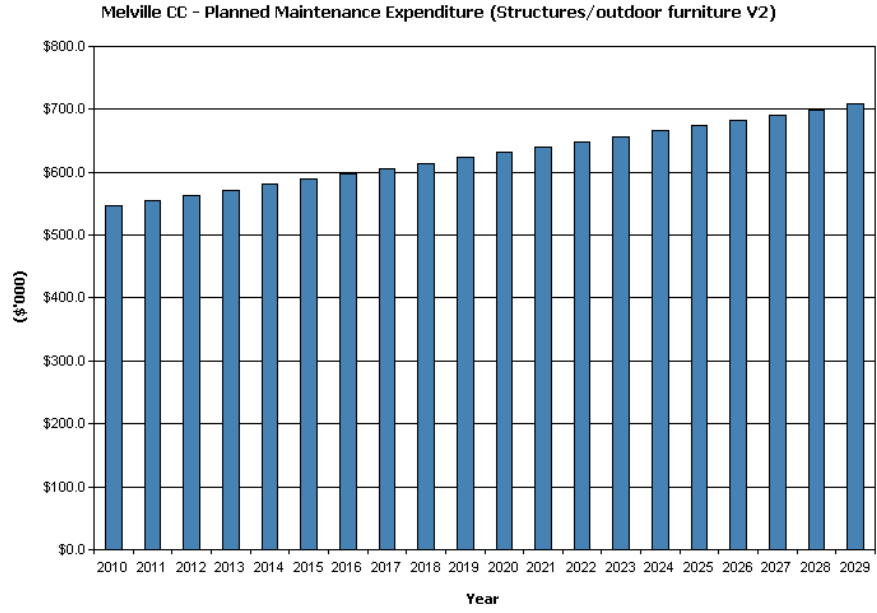
City of Melville Policy 13 PL 008 Asset Management
City of Melville Asset Management Strategy
City of Melville Disability Access and Inclusion Plan (DAIP)
City of Melville Policy 21-PL-001 Road verges
City of Melville Policy 21-PL-002 Street and commercial centre landscape standards
City of Melville Policy 21-PL-003 Verge maintenance adjacent to private property
City of Melville Local Law relating to Street Lawns and Gardens
City of Melville Policy 07 PL002 sump frontages, minor reserves, road verges
AS/NZS 1158 - 2005 Lighting for roads and public spaces
AS 4685 Parts 1 to 6 Playground Equipment
AS 4422 playground surfacing - specifications, requirements and test method
AS/NZS 4486 Playgrounds and Playground equipment
AAS 27 Asset Management Accounting Strategy
AS 2865 National Standard safe working in a confined space
AS 4000: 1997 Admin manual General conditions of Contract
Health (Garden Soil) Regulations
City of Melville Local law relating to Parks, Recreation Grounds and Public Reserves
City of Melville Local Law relating to the Point Walter Golf Course
City of Melville Policy 12 PL 001 Trees
City of Melville Policy 27-PL-004 City centre frame precinct urban design guidelines - Almondbury road and Riseley street
City of Melville Strategic Policy relating Bush and River Priority Rating for Management, G03/2010
City of Melville Firebreak Notice
AS 4373-2007 Pruning of Amenity Trees
AS4970-2009 Protection of trees on development sites
AS26983-1990 Plastic Pipes and fittings for Irrigation and rural applications
Code of Practice for Electrical Safety for Vegetation Control Work near Live Power Lines

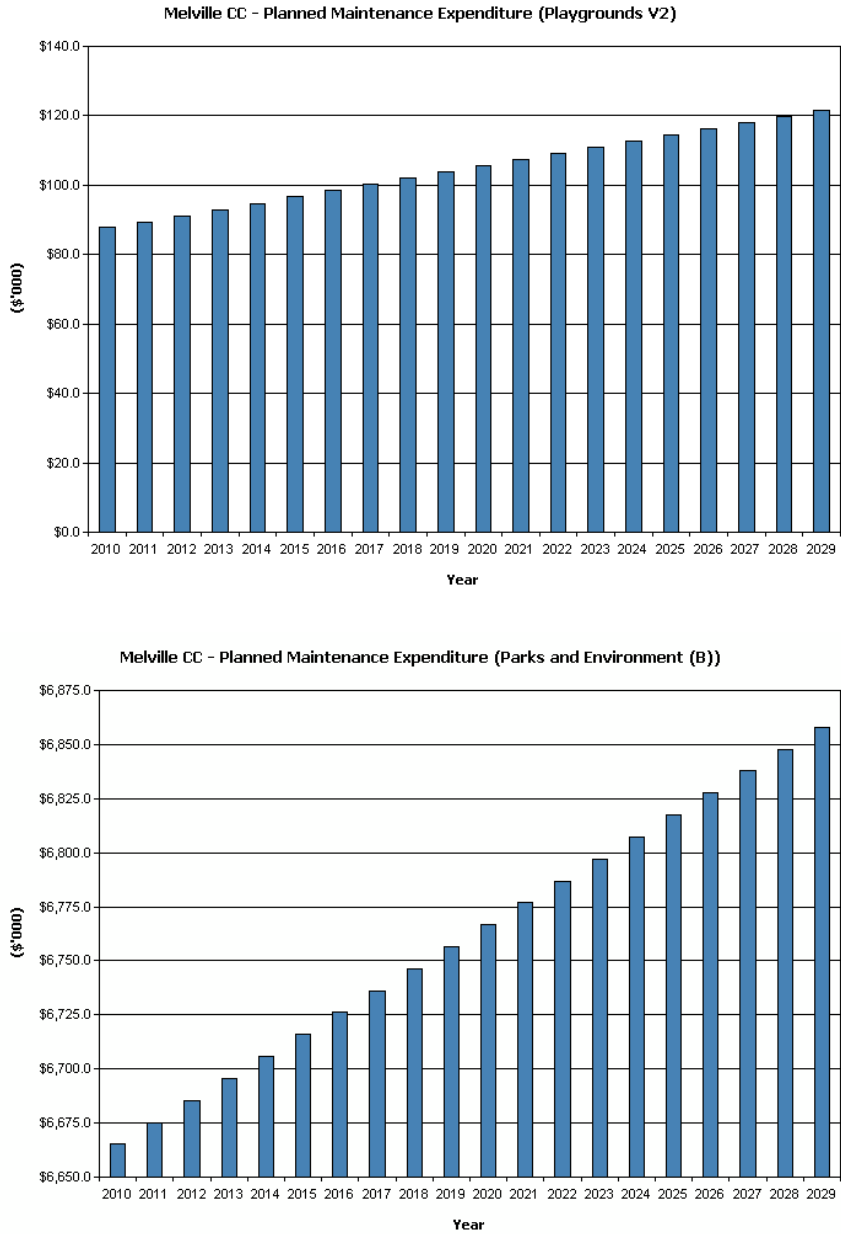
### 5.3.3 Summary of future maintenance expenditures

Significant increased maintenance costs will be required over the next twenty years for the maintenance of the Fiona Stanley precinct, Carawatha site development and Melville Primary School site development.

Future maintenance expenditure is forecast to trend in line with the value of the asset stock as shown in Figure 4.

Note that all costs are shown in 2010 dollar values.





**Figure 4: Planned Maintenance Expenditure**

Deferred maintenance, i.e. works that are identified for maintenance and unable to be funded are to be included in the risk assessment process in the infrastructure risk management plan.

Maintenance is funded from CoM's operating budget and grants where available. This is further discussed in Section 6.2.

**5.4 Renewal/Replacement Plan**

Renewal expenditure is major work which does not increase the asset's design capacity but restores, rehabilitates, replaces or renews an existing asset to its original service potential. Work over and above restoring an asset to original service potential is upgrade/expansion or new works expenditure.

#### **5.4.1 Renewal plan**

Parks projects and landscape capital works projects are currently subject to an informal ranking criterion by officers. It is important that significant projects are subject to the project management framework and that a project prioritisation framework be developed. Projects should be prioritised based on the objectives in the corporate plan and should be classified in relation to Key Result Areas (environment, social-cultural, governance and economic).

Assets requiring renewal are identified from estimates of remaining life obtained from the asset register worksheets on the 'Planned Expenditure template'. Candidate proposals are inspected to verify accuracy of remaining life estimate and to develop a preliminary renewal estimate. Verified proposals are ranked by priority and available funds are scheduled in future works programmes.

Renewal criteria should be based on technical levels of service that are related to community levels of service. Renewal criteria has not been formally developed or implemented in regards to Parks projects and landscape capital works projects.

Significant capital works expenditure as part of a renewal Plan includes Heathcote playground replacement, Wireless Hill 2020 development. As well as the Reticulation capital works program and 10 year playground replacement program, these plans are currently being developed.

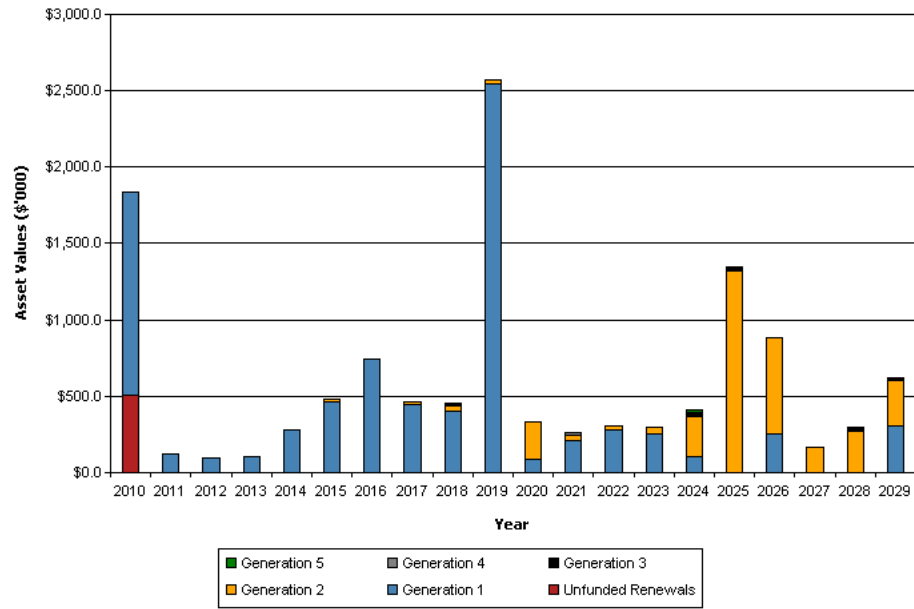
#### **5.4.2 Renewal standards**

Renewal work is carried out in accordance with the Standards and Specifications outlined in (table 5.3.2)

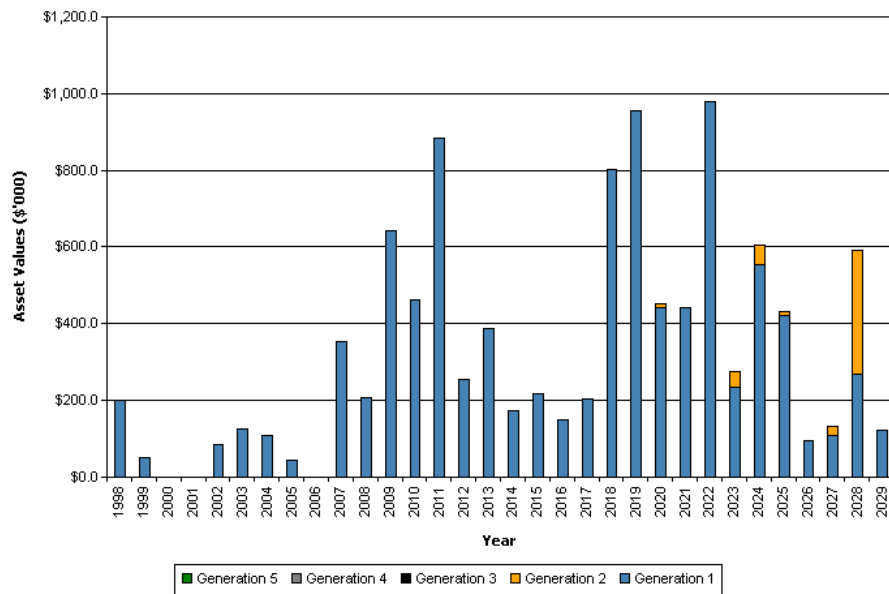
#### **5.4.3 Summary of future renewal expenditure**

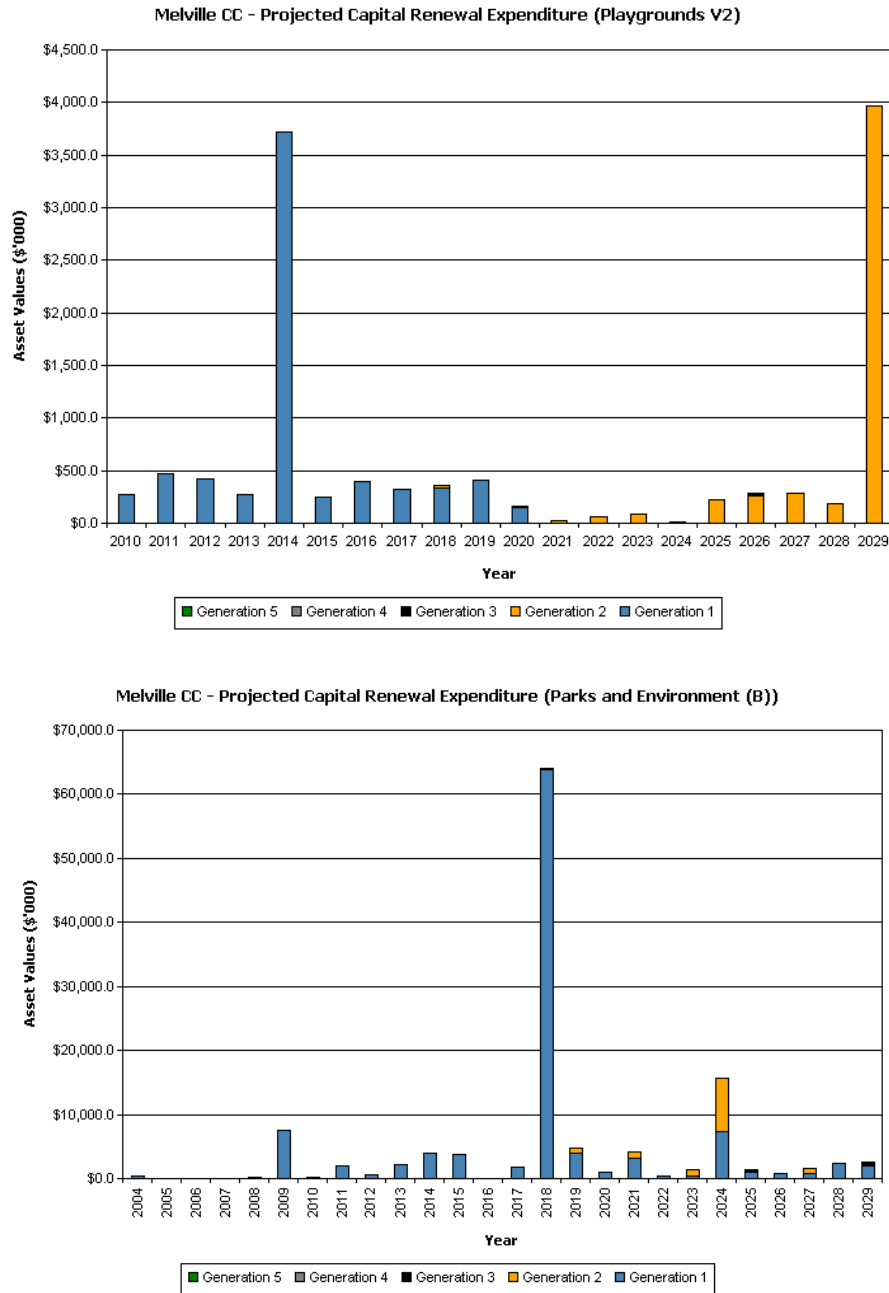
Projected future renewal expenditures are forecast to increase over time as the asset stock ages. The costs are summarised in Figure 5. Note that all costs are shown in current 2009/2010 dollar values excluding CPI and forecasts of estimated increasing costs (e.g. steel playgrounds, gazebos, fertiliser, herbicide, electricity costs).

Melville CC - Projected Capital Renewal Expenditure (Structures/outdoor furniture V2)



Melville CC - Projected Capital Renewal Expenditure (Irrigation V2)





**Figure 5: Projected Capital Renewal Expenditure**

It should be noted that \$1,800,000 has been identified for replacement of structures deemed to be at the end of their life. Closer analysis is required to determine priorities in regards to risk/safety and what could be deferred.

Deferred renewal; i.e. those assets identified for renewal and not scheduled for renewal in capital works programs are to be included in the risk assessment process in the risk management plan.

Renewals are to be funded from City's capital works program and grants where available. This is further discussed in Section 6.2.

## **5.5 Creation/Acquisition/Upgrade Plan**

New works are those works that create a new asset that did not previously exist, or works which upgrade or improve an existing asset beyond its existing capacity. They may result from growth, social or environmental needs. Assets may also be acquired at no cost to the CoM from land development. These assets from growth are outlined in Section 4.4. and include redevelopment of Melville primary School site, Carawatha Primary School site and future acquisition of assets from the Fiona Stanley precinct development.

### **5.5.1 Selection criteria**

New assets and upgrade/expansion of existing assets are identified from various sources such as CoM or community requests, proposals identified by strategic plans or partnerships with other organisations. Candidate proposals are inspected to verify need and to develop a preliminary renewal estimate. Verified proposals are ranked by priority and available funds are scheduled in future works programmes.

Currently there are no formal adopted criteria developed for new assets priority ranking. Current new assets priorities are indicated below

Parks projects are developed through the project management process

Landscape capital works are outlined in the landscape capital works program and officers determine the priority

Irrigation capital works are prioritised on an asset condition basis

Customer requests through pathway are evaluated and submitted as part of the capital or maintenance budget (streetscapes, structures, playgrounds, street tree planting)

New Assets/upgrade proposals must adhere to the Corporate Project Management Model and progress through the Project Development phase before a decision to invest is considered. The decision to invest includes the executive-led process of prioritising the worthwhile projects, and maximising what can be delivered within the long-term financial plan. The competing business cases must be prioritised to ensure that the projects with the greatest impact and the best value are selected for investment – at the best time. After prioritisation and funding has been approved the project can be scheduled in forward works programmes.

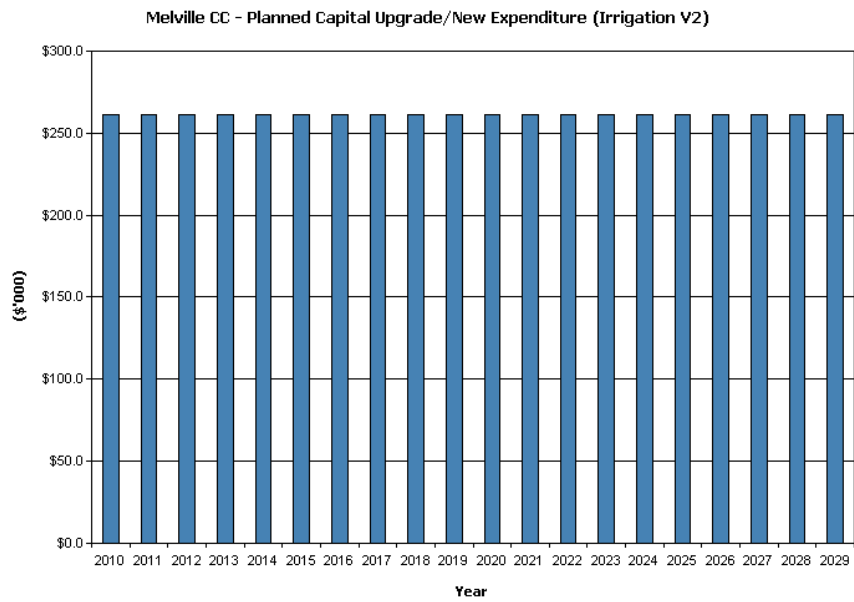
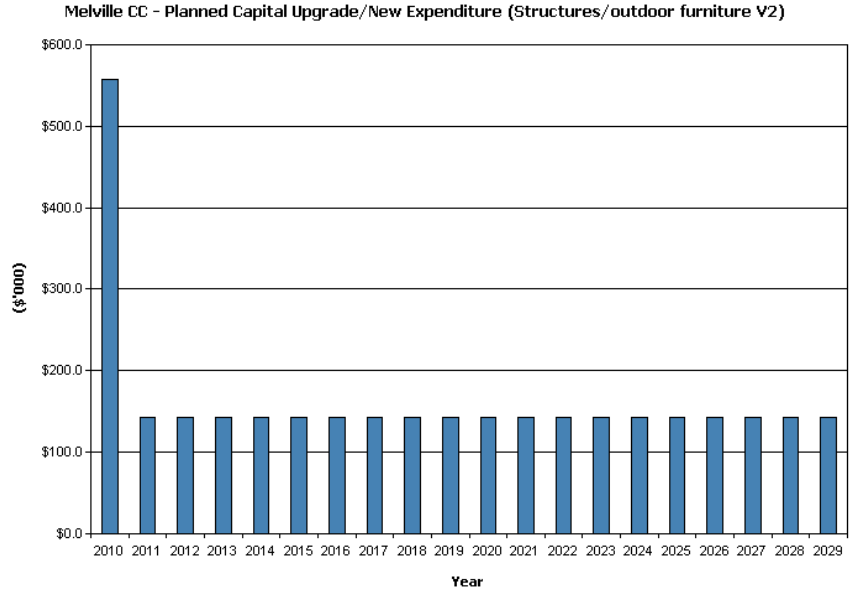
All priorities are subject to capital or operational budget endorsement. It is recommended the new asset priority ranking be developed cross divisional as well as with elected members to ensure a uniform approach is adopted.

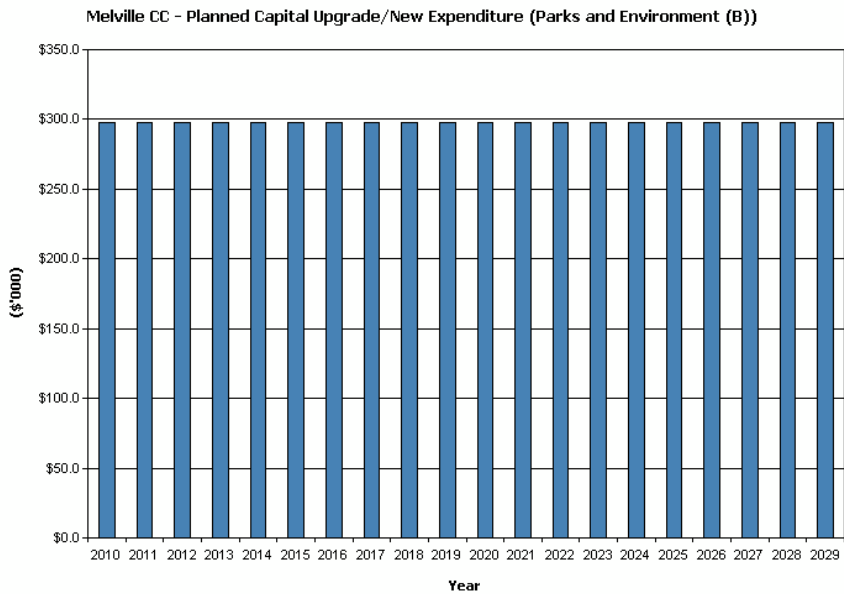
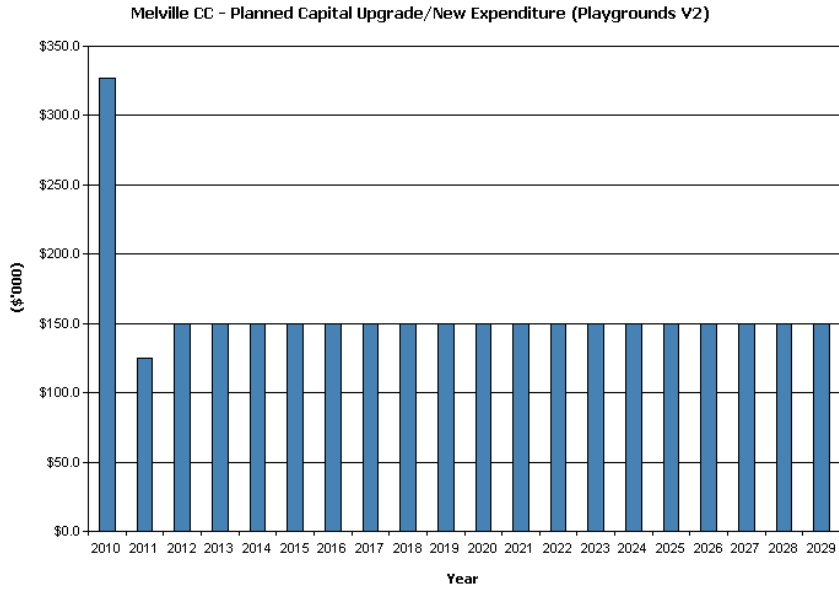
### **5.5.2 Standards and specifications**

Standards and specifications for new assets and for upgrade/expansion of existing assets are the same as those for renewal outlined in Section 5.4.2.

### **5.5.3 Summary of future upgrade/new assets expenditure**

Planned upgrade/new asset expenditures are summarised in Figure 6. All costs are shown in 2010 dollar values excluding CPI and forecasts of increasing costs.





**Figure 6: Planned Capital Upgrade/New Asset Expenditure**

New assets and services are to be funded from CoM's capital works program and grants where available. This is further discussed in Section 6.2.

**5.6 Disposal Plan**

Disposal includes any activity associated with disposal of a decommissioned asset including sale, demolition or relocation. Assets identified for possible decommissioning and disposal are shown in Table 5.6. These assets will be further reinvestigated to determine the required levels of service and see what options are available for alternate service delivery, if any.

The CoM does not have disposal plan, however there are a number of land assets that are currently under review that if disposed of will reduce the Parks and Environment operational budget. These are outlined in the Strengthening Communities report and recommendations from the facilities and community centre review.

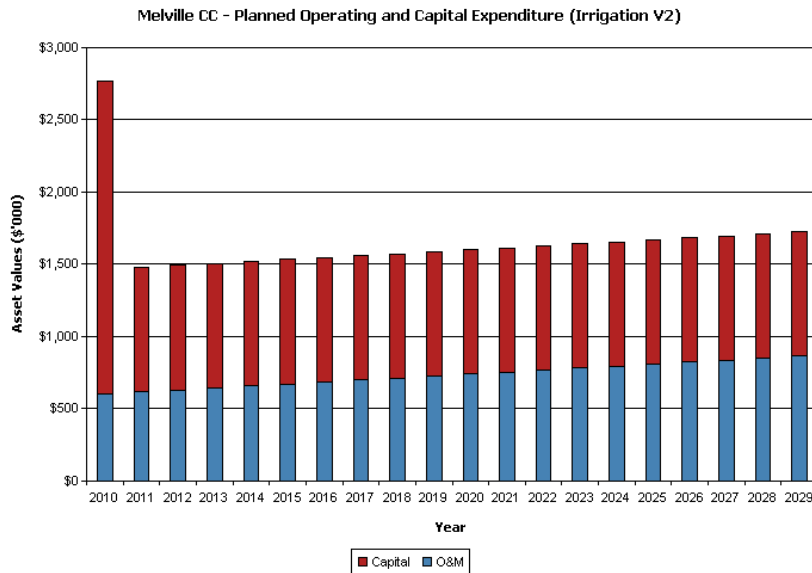
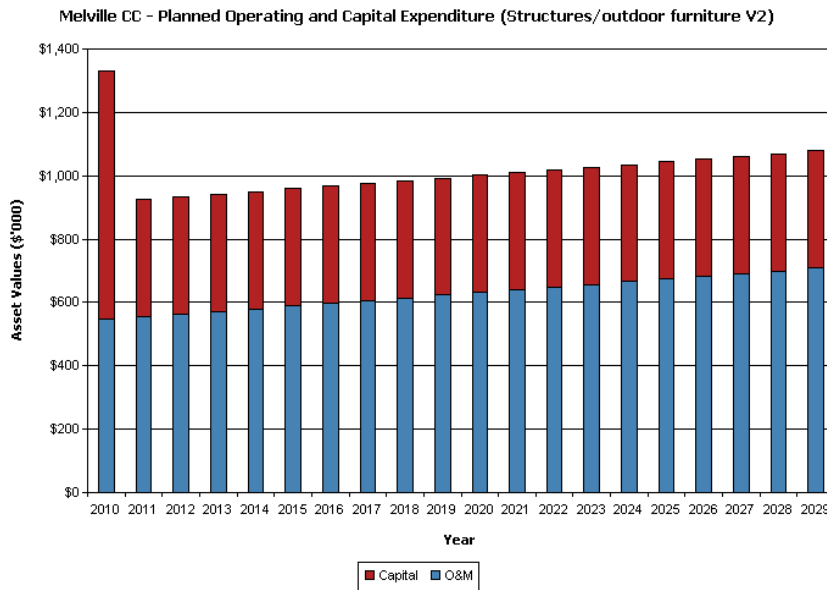
A Disposal Plan including Cash flow projections from asset disposals will be developed in future revisions of this asset management plan and should be made in conjunction with a review of the Public Open Space Strategy that is currently 5 years out of date.

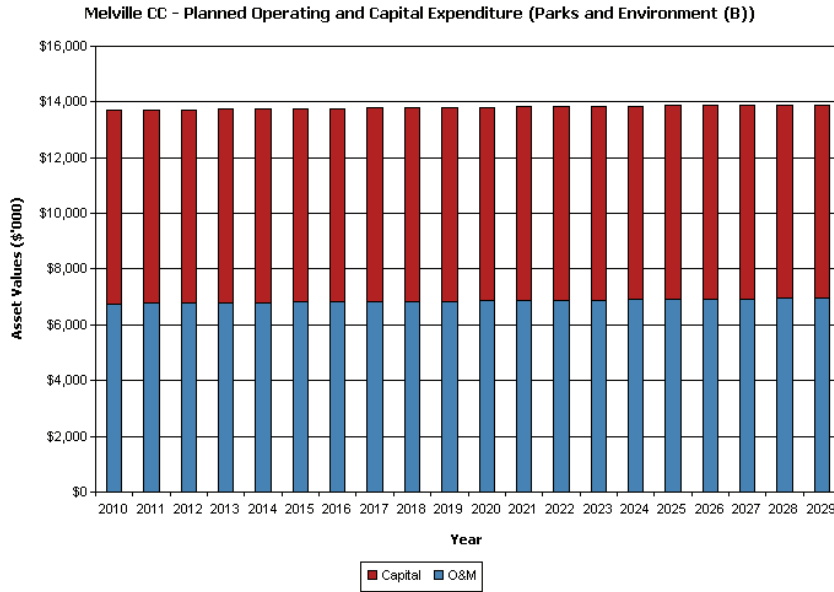
## 6. FINANCIAL SUMMARY

This section contains the financial requirements resulting from all the information presented in the previous sections of this asset management plan. The financial projections will be improved as further information becomes available on desired levels of service and current and projected future asset performance.

### 6.1 Financial Statements and Projections

The financial projections are shown in Figure 7 for planned operating (operations and maintenance) and capital expenditure (renewal and upgrade/expansion/new assets).





**Figure 7: Planned Operating and Capital Expenditure**

Note that all costs are shown in 2010 dollar values.

**6.1.1 Sustainability of service delivery**

There are two key indicators for financial sustainability that have been considered in the analysis of the services provided by this asset category, these being long term life cycle costs and medium term costs over the 10 year financial planning period.

Long term - Life Cycle Cost

Life cycle costs (or whole of life costs) are the average costs that are required to sustain the service levels over the longest asset life. Life cycle costs include maintenance and asset consumption (depreciation expense). The annual average life cycle cost for the services covered in this asset management plan is listed in the table below for depreciable assets only.

Asset	Annual Average Life Cycle cost
Irrigation	\$1,133,150
Structures/outdoor furniture	\$1,003,700
Playgrounds	\$266,650
<b>Total</b>	<b>\$2,403,500</b>

Life cycle costs can be compared to life cycle expenditure to give an indicator of sustainability in service provision. Life cycle expenditure includes maintenance plus capital renewal expenditure. Life cycle expenditure will vary depending on the timing of asset renewals. The life cycle expenditure at the start of the plan is

<b>Asset</b>	<b>Life Cycle expenditure</b>
Irrigation	\$2,247,000
Structures/outdoor furniture	\$773,000
Playgrounds	\$286,000
<b>Total</b>	<b>\$3,306,000</b>

A gap between life cycle costs and life cycle expenditure gives an indication as to whether present consumers are paying their share of the assets they are consuming each year. The purpose of this Parks and Environment asset management plan is to identify levels of service that the community needs and can afford and develop the necessary long term financial plans to provide the service in a sustainable manner.

The life cycle gap for services covered by this PEAMP is \$902,500 (\$2,403,500-\$3,306,000). The life cycle sustainability index is 137%. This figure demonstrates an over expenditure but is a result of the large expenditure on irrigation in the first year of the plan.

This may be explained by an inflated renewal budget (\$1.9 million) for irrigation asset renewal in this current year due to major infrastructure breakdowns. While future budget planning will need to consider ageing infrastructure that will require replacement particularly in the year 2019, \$1.9 million will not be required on an annual basis.

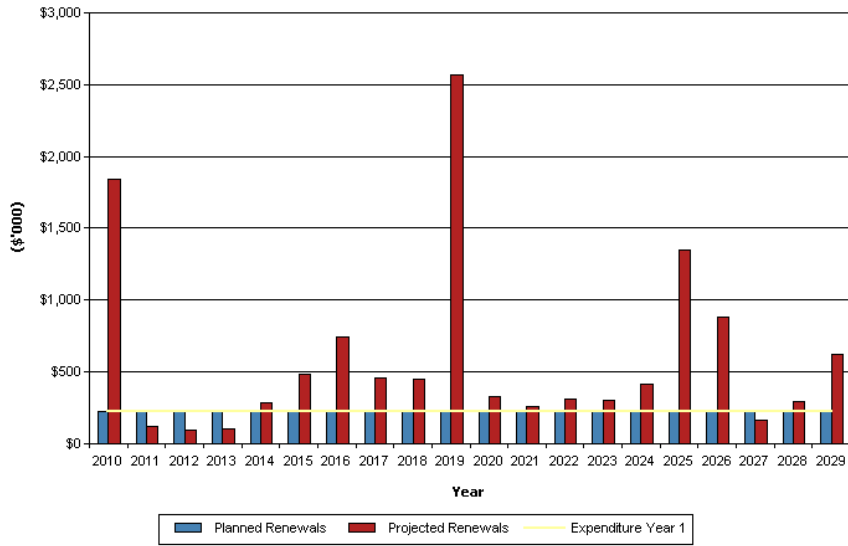
Medium term – 10 year financial planning period

This PEAMP identifies the estimated maintenance and capital expenditures required to provide an agreed level of service to the community over a 20 year period for input into a 10 year financial plan and funding plan to provide the service in a sustainable manner.

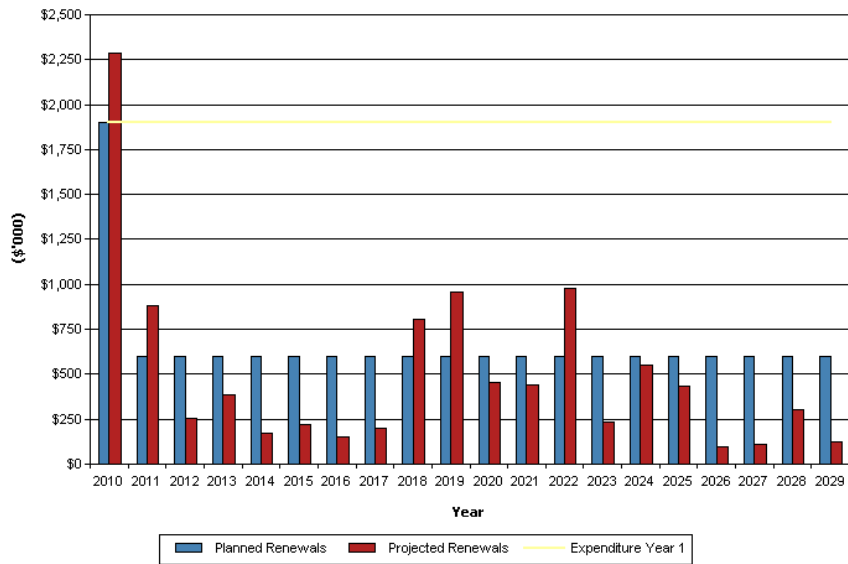
This may be compared to existing or planned expenditures in the 20 year period to identify any gap. In a core asset management plan, a gap is generally due to increasing asset renewals.

Figure 8 shows the projected asset renewals in the 20 year planning period from the asset register. The projected asset renewals are compared to planned renewal expenditure in the capital works program and capital renewal expenditure in year 1 of the planning period as shown in Figure 8. Table 6.1.1 shows the annual and cumulative funding gap between projected and planned renewals.

Melville CC - Projected & Planned Renewals and Current Renewal Expenditure (Structures/outdoor furniture V2)



Melville CC - Projected & Planned Renewals and Current Renewal Expenditure (Irrigation V2)



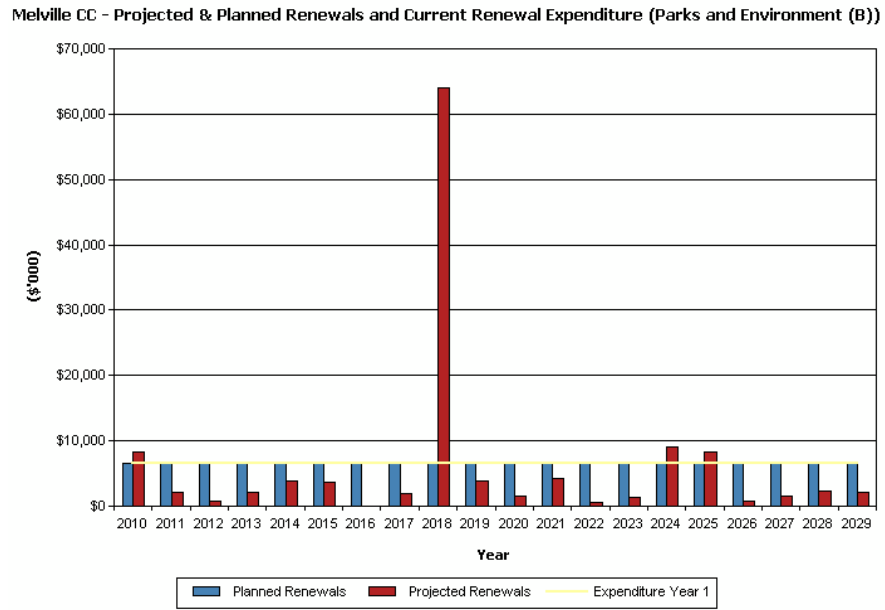
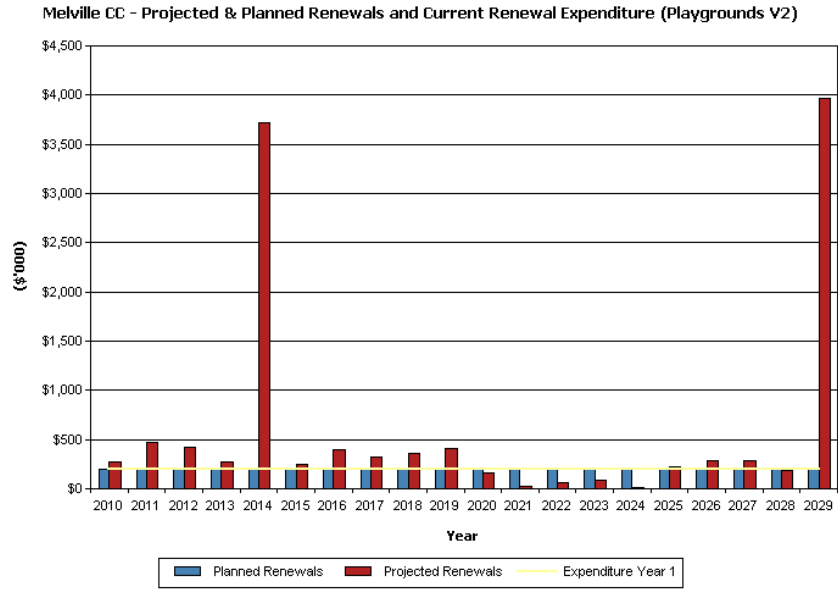


Figure 8 Projected and Planned Renewals and Current Renewal Expenditure

Melville CC >> Planned Expenditures for Long Term Financial Plan (Structures/outdoor furniture V2)

Year End Jun-30	Total Operations Expenditure (\$'000)	Total Maintenance Expenditure (\$'000)	Projected Capital Renewal Expenditure (\$'000)	Planned Capital Upgrade/New Expenditure (\$'000)	Planned Disposals (\$'000)	Planned Capital Renewal Expenditure (\$'000)	Shortfall in Renewal Expenditure (Projected - Planned) (\$'000)	Cumulative Renewal Funding Shortfall (\$'000)
2010	\$0.00	\$546.25	\$1,838.70	\$558.00	\$0.00	\$227.00	\$1,611.70	\$1,611.70
2011	\$0.00	\$554.77	\$120.25	\$143.00	\$0.00	\$227.00	-\$106.75	\$1,504.95
2012	\$0.00	\$563.29	\$92.56	\$143.00	\$0.00	\$227.00	-\$134.44	\$1,370.52
2013	\$0.00	\$571.81	\$104.58	\$143.00	\$0.00	\$227.00	-\$122.42	\$1,248.10
2014	\$0.00	\$580.33	\$282.14	\$143.00	\$0.00	\$227.00	\$55.14	\$1,303.24
2015	\$0.00	\$588.85	\$481.63	\$143.00	\$0.00	\$227.00	\$254.63	\$1,557.87
2016	\$0.00	\$597.37	\$743.98	\$143.00	\$0.00	\$227.00	\$516.98	\$2,074.85
2017	\$0.00	\$605.89	\$461.30	\$143.00	\$0.00	\$227.00	\$234.30	\$2,309.15
2018	\$0.00	\$614.41	\$451.45	\$143.00	\$0.00	\$227.00	\$224.45	\$2,533.60
2019	\$0.00	\$622.93	\$2,571.14	\$143.00	\$0.00	\$227.00	\$2,344.14	\$4,877.74
2020	\$0.00	\$631.45	\$328.77	\$143.00	\$0.00	\$227.00	\$101.77	\$4,979.51
2021	\$0.00	\$639.97	\$262.30	\$143.00	\$0.00	\$227.00	\$35.30	\$5,014.81
2022	\$0.00	\$648.49	\$309.61	\$143.00	\$0.00	\$227.00	\$82.61	\$5,097.42
2023	\$0.00	\$657.01	\$298.63	\$143.00	\$0.00	\$227.00	\$71.63	\$5,169.05
2024	\$0.00	\$665.53	\$412.22	\$143.00	\$0.00	\$227.00	\$185.22	\$5,354.27
2025	\$0.00	\$674.05	\$1,344.83	\$143.00	\$0.00	\$227.00	\$1,117.83	\$6,472.10
2026	\$0.00	\$682.57	\$882.65	\$143.00	\$0.00	\$227.00	\$655.65	\$7,127.75
2027	\$0.00	\$691.09	\$167.54	\$143.00	\$0.00	\$227.00	-\$59.46	\$7,068.29
2028	\$0.00	\$699.61	\$293.94	\$143.00	\$0.00	\$227.00	\$66.94	\$7,135.23
2029	\$0.00	\$708.13	\$618.18	\$143.00	\$0.00	\$227.00	\$391.18	\$7,526.41

Melville CC >> Planned Expenditures for Long Term Financial Plan (Irrigation V2)

Year End Jun-30	Total Operations Expenditure (\$'000)	Total Maintenance Expenditure (\$'000)	Projected Capital Renewal Expenditure (\$'000)	Planned Capital Upgrade/New Expenditure (\$'000)	Planned Disposals (\$'000)	Planned Capital Renewal Expenditure (\$'000)	Shortfall in Renewal Expenditure (Projected - Planned) (\$'000)	Cumulative Renewal Funding Shortfall (\$'000)
2010	\$255.81	\$347.90	\$2,284.29	\$261.00	\$0.00	\$1,900.00	\$384.29	\$384.29
2011	\$261.61	\$355.80	\$883.57	\$261.00	\$0.00	\$600.00	\$283.57	\$667.86
2012	\$267.42	\$363.69	\$254.49	\$261.00	\$0.00	\$600.00	-\$345.51	\$322.36
2013	\$273.23	\$371.59	\$386.40	\$261.00	\$0.00	\$600.00	-\$213.60	\$108.76
2014	\$279.04	\$379.49	\$172.27	\$261.00	\$0.00	\$600.00	-\$427.73	-\$318.97
2015	\$284.84	\$387.39	\$218.54	\$261.00	\$0.00	\$600.00	-\$381.46	-\$700.43
2016	\$290.65	\$395.28	\$150.21	\$261.00	\$0.00	\$600.00	-\$449.79	-\$1,150.23
2017	\$296.46	\$403.18	\$202.35	\$261.00	\$0.00	\$600.00	-\$397.65	-\$1,547.87
2018	\$302.27	\$411.08	\$803.38	\$261.00	\$0.00	\$600.00	\$203.38	-\$1,344.49
2019	\$308.07	\$418.98	\$956.52	\$261.00	\$0.00	\$600.00	\$356.52	-\$987.97
2020	\$313.88	\$426.88	\$452.54	\$261.00	\$0.00	\$600.00	-\$147.47	-\$1,135.44
2021	\$319.69	\$434.77	\$441.63	\$261.00	\$0.00	\$600.00	-\$158.37	-\$1,293.81
2022	\$325.49	\$442.67	\$979.94	\$261.00	\$0.00	\$600.00	\$379.94	-\$913.87
2023	\$331.30	\$450.57	\$234.31	\$261.00	\$0.00	\$600.00	-\$365.69	-\$1,279.56
2024	\$337.11	\$458.47	\$552.98	\$261.00	\$0.00	\$600.00	-\$47.02	-\$1,326.58
2025	\$342.92	\$466.37	\$431.40	\$261.00	\$0.00	\$600.00	-\$168.60	-\$1,495.19
2026	\$348.72	\$474.26	\$96.01	\$261.00	\$0.00	\$600.00	-\$503.99	-\$1,999.18
2027	\$354.53	\$482.16	\$109.44	\$261.00	\$0.00	\$600.00	-\$490.56	-\$2,489.73
2028	\$360.34	\$490.06	\$306.30	\$261.00	\$0.00	\$600.00	-\$293.70	-\$2,783.44
2029	\$366.14	\$497.96	\$122.25	\$261.00	\$0.00	\$600.00	-\$477.75	-\$3,261.19

Melville CC >> Planned Expenditures for Long Term Financial Plan (Playgrounds V2)

Year End Jun-30	Total Operations Expenditure (\$'000)	Total Maintenance Expenditure (\$'000)	Projected Capital Renewal Expenditure (\$'000)	Planned Capital Upgrade/New Expenditure (\$'000)	Planned Disposals (\$'000)	Planned Capital Renewal Expenditure (\$'000)	Shortfall in Renewal Expenditure (Projected - Planned) (\$'000)	Cumulative Renewal Funding Shortfall (\$'000)
2010	\$60.70	\$87.91	\$270.10	\$327.00	\$0.00	\$198.00	\$72.10	\$72.10
2011	\$61.73	\$89.41	\$468.00	\$125.00	\$0.00	\$198.00	\$270.00	\$342.10
2012	\$62.97	\$91.20	\$419.10	\$150.00	\$0.00	\$198.00	\$221.10	\$563.20
2013	\$64.21	\$93.00	\$271.40	\$150.00	\$0.00	\$198.00	\$73.40	\$636.60
2014	\$65.45	\$94.79	\$3,714.50	\$150.00	\$0.00	\$198.00	\$3,516.50	\$4,153.10
2015	\$66.69	\$96.59	\$251.20	\$150.00	\$0.00	\$198.00	\$53.20	\$4,206.30
2016	\$67.93	\$98.38	\$398.30	\$150.00	\$0.00	\$198.00	\$200.30	\$4,406.60
2017	\$69.17	\$100.18	\$327.50	\$150.00	\$0.00	\$198.00	\$129.50	\$4,536.10
2018	\$70.41	\$101.97	\$365.70	\$150.00	\$0.00	\$198.00	\$167.70	\$4,703.80
2019	\$71.65	\$103.76	\$414.80	\$150.00	\$0.00	\$198.00	\$216.80	\$4,920.60
2020	\$72.89	\$105.56	\$157.00	\$150.00	\$0.00	\$198.00	-\$41.00	\$4,879.60
2021	\$74.13	\$107.35	\$20.00	\$150.00	\$0.00	\$198.00	-\$178.00	\$4,701.60
2022	\$75.36	\$109.15	\$63.70	\$150.00	\$0.00	\$198.00	-\$134.30	\$4,567.30
2023	\$76.60	\$110.94	\$89.20	\$150.00	\$0.00	\$198.00	-\$108.80	\$4,458.50
2024	\$77.84	\$112.74	\$13.00	\$150.00	\$0.00	\$198.00	-\$185.00	\$4,273.50
2025	\$79.08	\$114.53	\$228.60	\$150.00	\$0.00	\$198.00	\$30.60	\$4,304.10
2026	\$80.32	\$116.33	\$282.40	\$150.00	\$0.00	\$198.00	\$84.40	\$4,388.50
2027	\$81.56	\$118.12	\$281.50	\$150.00	\$0.00	\$198.00	\$83.50	\$4,472.00
2028	\$82.80	\$119.92	\$188.60	\$150.00	\$0.00	\$198.00	-\$9.40	\$4,462.60
2029	\$84.04	\$121.71	\$3,973.10	\$150.00	\$0.00	\$198.00	\$3,775.10	\$8,237.70

**Table 6.1.1 Projected and Planned Renewals and Expenditure Gap**

However, the planned renewals best represent the projected renewal expenditure as many assets, particularly in Non-Depreciable Assets (B) will not require renewal but will have their useful lives extended ‘indefinitely’ by turf renovation, bushland restoration or tree renewal to meet current and changing operational and community needs.

The projected renewals shown in Fig 8 Parks & Environment (A) represent the proposed renewal of irrigation and structures/outdoor furniture assets as detailed in Appendix 2.

The planned renewal figure is expected to increase over the 20 year period as comprehensive asset registers and condition audits of more of the assets are completed and the medium and long term renewal plans gain more accuracy.

Providing services in a sustainable manner will require matching of projected asset renewals to meet agreed service levels with planned capital works programs and available revenue.

A gap between projected asset renewals, planned asset renewals and funding indicates that further work is required to manage required service levels and funding to eliminate any funding gap.

CoM will manage the ‘gap’ by developing this asset management plan to provide guidance on future service levels and resources required to provide these services.

CoM’s long term financial plan covers the first 10 years of the 20 year planning period. The total maintenance and capital renewal expenditure required over the 10 years is \$30,997,000 for depreciable assets (A) and \$133,650,000 for non-depreciable (B)

This is an average expenditure of \$3,099,700 for Depreciable assets (A) and \$13,365,000 for non-depreciable assets (B). Estimated maintenance and capital renewal expenditure in year 1 for Depreciable Assets (A) is \$3,307,000 and Non - depreciable assets (B) is \$12,397,000. The 10 year sustainability index for depreciable assets (A) is 106% and for non – depreciable assets (B) is 92%.

## **6.2 Funding Strategy**

Projected expenditure identified in Section 6.1 is to be funded from CoM's operating and capital budgets. The funding strategy is detailed in the CoM's 10 year long term financial plan which is currently under review for 2010 – 2020.

## **6.3 Valuation Forecasts**

Asset values are forecast to increase as additional assets are added to the asset stock from construction and acquisition by CoM and from assets constructed by land developers and others and donated to CoM. Figure 9 shows the projected replacement cost asset values over the planning period in current 2009/2010 dollar values.

Depreciation expense values are forecast in line with asset values as shown in Figure 10.

The depreciated replacement cost (current replacement cost less accumulated depreciation) will vary over the forecast period depending on the rates of addition of new assets, disposal of old assets and consumption and renewal of existing assets.

## **6.4 Key Assumptions made in Financial Forecasts**

This section details the key assumptions made in presenting the information contained in this asset management plan and in preparing forecasts of required operating and capital expenditure and asset values, depreciation expense and carrying amount estimates. It is presented to enable readers to gain an understanding of the levels of confidence in the data behind the financial forecasts.

Key assumptions made in this PEAMP are:

- Financial data has been allocated to the correct works category
- Interpretation from the guidelines are correct
- Information is based on current knowledge only. The anticipated results of current surveys or reviews or their impact on future projections has not been considered.
- Improvements which will increase the accuracy of future financial forecasts are included the Improvement Plan in section 8.2
- Detailed assumptions made in regards to specific sub-category information can be found at Appendix 3

## **7. ASSET MANAGEMENT PRACTICES**

### **7.1 Accounting/Financial Systems**

- Accounting/Financial Systems
- The current financial package is 'Finance One'
- Accountabilities for the finance system reside with the Manager Finance
- Australian Accounting Standards must be complied with.
- City of Melville Financial Sustainability – Forward Financial Planning and Funding Allocation Policy (Policy No. 13-PL-001).
- City of Melville Borrowings and Asset Financial Policy (Policy No. 13-006).
- City of Melville Accounting Policy (Policy No. 13-PL-007).
- Changes to the accounting/financial system resulting from this asset management plan are included in section 8.2 Improvement Plan

### **7.2 Asset Management Systems**

The current Asset Management software is Archibus and is used in a limited manner for Parks and Environment assets. As part of the improvement plan staff will investigate the following:

- Appropriate asset management systems and ability to Interlink with Finance one.
- Interlink of Finance one into Aurion.

A process needs to be developed to determine the responsible officers for maintaining asset registers, addition and removal of data from the asset register and requisitioning with finance to ensure asset register data values are accurate.

It is critical a suitable software package is adopted City wide to ensure data is being captured, valued and forecasted for long term financial plans. It is recommended this software communicate with Financial and Payroll software in the future so the whole of life cost can be attributed to the asset which will result in more accurate budgeting process for monitoring whole of life expenditure associated with each asset category.

### **7.3 Information Flow Requirements and Processes**

The key information flows into this asset management plan are:

- The asset register data on size, age, value, remaining life of the network;
- The unit rates for categories of work/material;
- The adopted service levels;
- Projections of various factors affecting future demand for services;
- Correlations between maintenance and renewal, including decay models;
- Data on new assets acquired by CoM.

The key information flows from this asset management plan are:

- The assumed Works Program and trends;
- The resulting budget, valuation and depreciation projections;
- The useful life analysis.

Tasks for inclusion in the Improvement Plan.

These will impact the Long Term Financial Plan, Strategic Business Plan, annual budget and departmental business plans and budgets.

The key information flows from the asset management to the financial systems are:

Work order details and costs.

### **7.4 Standards and Guidelines**

The following asset management policies, procedures and references were used in the preparation of this plan:

IPWEA, 2006, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australia, Sydney, [www.ipwea.org.au](http://www.ipwea.org.au)

IPWEA NAMS.PLUS Asset Management 2009

City of Melville Asset Management Policy (Policy No. 13-PL-008)

City of Melville Asset Management Deployment Strategy

City of Melville Corporate Plan 2008-2012

City of Melville Financial Sustainability – Forward Financial Planning and Funding Allocation Policy (Policy No. 13-PL-001)

City of Melville Borrowings and Asset Financial Policy (Policy No. 13-PL-006)

City of Melville Accounting Policy (Policy No. 13-PL-007)

City of Melville Strategic Financial Plan – The City's long term Financial Plan which outlines all aspects of the key financial strategy objectives and commitments and how future expenditure needs will be funded.

## 8. PLAN IMPROVEMENT AND MONITORING

### 8.1 Performance Measures

The effectiveness of the PEAMP can be measured in the following ways:

The degree to which the required cash flows identified in this PEAMP are incorporated into CoM's long term financial plan and Strategic Management Plan;

The degree to which 1-5 year detailed works programs, budgets, business plans and organisational structures take into account the 'global' works program trends provided by the asset management plan.

### 8.2 Improvement Plan

The asset management improvement plan generated from this asset management plan is shown in Table 8.2.

**Table 8.2 Improvement Plan**

Task No	Task	Responsibility	Resources Required	Timeline
1.	Establish an Asset Management Working Group to ensure a corporate approach to asset management	Manager Asset Management	Staff	April 2010
2.	Investigate integrating the finance and asset management systems	Manager Asset Management	Staff	July 2010
3.	Update and maintain all data in the AM system	Coordinator Facilities and Assets	Staff	Ongoing
4.	Review financial data and processes, particularly those relating to asset valuations and depreciation	Manager Finance/Manager Asset Management	Staff	December 2010
5.	Ensure the financial (Finance 1) and operational asset registers reflect the same inventory	Manager Parks and Environment	Staff	December 2010
6.	Set performance targets and implement recording processes for levels of service	Manager Parks and Environment	Staff	July 2011
7.	Quantify desired levels of service	Manager Parks and Environment	Staff	July 2011
8.	Establish a reserve hierarchy and associated LOS standards.	Manager Parks and Environment	Staff	July 2010
9.	Develop project prioritisation framework	Manager Parks and Environment	Staff	July 2010
10.	Continue to develop the Long Term Financial Plan for buildings to reflect creations, acquisitions, renewals, upgrades and disposals	AMWG	Staff	July 2010

11	Increase renewal funding for parks structures to \$603,000 per annum	Council	Staff	July 2010
12	Increase renewal funding for irrigation at \$600,000 per annum	Council	Staff	July 2010
13	Increase renewal funding for playgrounds at \$610,000	Council	Staff	July 2010

### 8.3 Monitoring and Review Procedures

This asset management plan will be reviewed prior to the formulation of capital and operational budget and amended to recognise any changes in service levels and/or resources available to provide those services as a result of the budget decision process.

#### REFERENCES

- City of Melville, 'Corporate Plan 2008 – 2012,
- City of Melville Asset Management Deployment Strategy,
- 
- City of Melville, 'Annual Budget 08/09, 09/10',
- City of Melville, 'Community Plan,
- City of Melville, Community Wellbeing Survey,
- City of Melville, 'Long Term Financial Plan,
- City of Melville, 'Policies;
  - i. 04-PL-002 Property Retention and Disposal,
  - ii. 13-PL-001 Financial Sustainability- Forward Financial Planning and Funding Allocation,
  - iii. 13-PL-006 Borrowings and Asset Financial Policy
  - iv. 13-PI-007 Accounting Policy,
  - v. 13-PL-008 Asset Management,
  - vi. 26-PL-001 Risk Management,
  - vii. 26-PL-002 Occupational Safety and Health,
  - viii. 28-PL-005 Community Concept Plan,
- City of Melville, Strategic Policy relating Bush and River Priority Rating for Management, G03/2010
- Asset Management – The City Of Melville Approach
- IPWEA, NAMS.PLUS Asset Management- A Guided Pathway

- IPWEA, 2006, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australia, Sydney, [www.ipwea.org.au](http://www.ipwea.org.au)
- Adelaide City CoM 'Urban Elements Infrastructure and Asset Management Plan' 2008
- City of Belmont, 'Asset Management Plan Version 1' 30<sup>th</sup> October 2008
- City of Canning Policy 'AF308 **COM ASSETS – VALUATION AND DEPRECIATION**' **February 2006**
- City of Marion 'Road Infrastructure Asset Management Plan' 28 April 2008
- North Sydney CoM 'Engineering Infrastructure Asset management plan' April 2007
- City of Swan Asset Management Plan
- Shoalhaven City CoM 'Asset Management Plan Parks Reserves and Playgrounds' 2005
- DVC, 2006, 'Asset Investment Guidelines', 'Glossary', Department for Victorian Communities, Local Government Victoria, Melbourne, <http://www.dvc.vic.gov.au/web20/dvclgv.nsf/allDocs/RWP1C79EC4A7225CD2FCA257170003259F6?OpenDocument>
- IPWEA, 2006, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australia, Sydney, [www.ipwea.org.au](http://www.ipwea.org.au)
- PRAMS Manual National Asset Condition Rating Grading Standards (July 2005)

## **GLOSSARY**

### **Annual service cost (ASC)**

An estimate of the cost that would be tendered, per annum, if tenders were called for the supply of a service to a performance specification for a fixed term. The Annual Service Cost includes operating, maintenance, depreciation, finance/ opportunity and disposal costs, less revenue.

### **Asset class**

Grouping of assets of a similar nature and use in an entity's operations (AASB 166.37).

### **Asset condition assessment**

The process of continuous or periodic inspection, assessment, measurement and interpretation of the resultant data to indicate the condition of a specific asset so as to determine the need for some preventative or remedial action.

### **Asset management**

The combination of management, financial, economic, engineering and other practices applied to physical assets with the objective of providing the required level of service in the most cost effective manner.

### **Assets**

Future economic benefits controlled by the entity as a result of past transactions or other past events (AAS27.12).

Property, plant and equipment including infrastructure and other assets (such as furniture and fittings) with benefits expected to last more than 12 month.

### **Average annual asset consumption (AAAC)\***

The amount of a local government's asset base consumed during a year. This may be calculated by dividing the Depreciable Amount (DA) by the Useful Life and totalled for each and every asset OR by dividing the Fair Value (Depreciated Replacement Cost) by the Remaining Life and totalled for each and every asset in an asset category or class.

### **Brownfield asset values\*\***

Asset (re)valuation values based on the cost to replace the asset including demolition and restoration costs.

### **Capital expansion expenditure**

Expenditure that extends an existing asset, at the same standard as is currently enjoyed by residents, to a new group of users. It is discretionary expenditure, which increases future operating, and maintenance costs, because it increases CoM's asset base, but may be associated with additional revenue from the new user group, eg. extending a drainage or road network, the provision of an oval or park in a new suburb for new residents.

### **Capital expenditure**

Relatively large (material) expenditure, which has benefits, expected to last for more than 12 months. Capital expenditure includes renewal, expansion and upgrade. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.

### **Capital funding**

Funding to pay for capital expenditure.

### **Capital grants**

Monies received generally tied to the specific projects for which they are granted, which are often upgrade and/or expansion or new investment proposals.

### **Capital investment expenditure**

See capital expenditure definition

**Capital new expenditure**

Expenditure which creates a new asset providing a new service to the community that did not exist beforehand. As it increases service potential it may impact revenue and will increase future operating and maintenance expenditure.

**Capital renewal expenditure**

Expenditure on an existing asset, which returns the service potential or the life of the asset up to that which it had originally. It is periodically required expenditure, relatively large (material) in value compared with the value of the components or sub-components of the asset being renewed. As it reinstates existing service potential, it has no impact on revenue, but may reduce future operating and maintenance expenditure if completed at the optimum time, eg. resurfacing or resheeting a material part of a road network, replacing a material section of a drainage network with pipes of the same capacity, resurfacing an oval. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.

**Capital upgrade expenditure**

Expenditure, 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. Upgrade expenditure is discretionary and often does not result in additional revenue unless direct user charges apply. It will increase operating and maintenance expenditure in the future because of the increase in the CoM's asset base, eg. widening the sealed area of an existing road, replacing drainage pipes with pipes of a greater capacity, enlarging a grandstand at a sporting facility. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.

**Carrying amount**

The amount at which an asset is recognised after deducting any accumulated depreciation / amortisation and accumulated impairment losses thereon.

**Class of assets**

See asset class definition

**Component**

An individual part of an asset which contributes to the composition of the whole and can be separated from or attached to an asset or a system.

**Cost of an asset**

The amount of cash or cash equivalents paid or the fair value of the consideration given to acquire an asset at the time of its acquisition or construction, plus any costs necessary to place the asset into service. This includes one-off design and project management costs.

**Current replacement cost (CRC)**

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 technologically modern equivalent new 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.

**Current replacement cost "As New" (CRC)**

The current cost of replacing the original service potential of an existing asset, with a similar modern equivalent asset, i.e. the total cost of replacing an existing asset with an as NEW or similar asset expressed in current dollar values.

**Cyclic Maintenance\*\***

Replacement of higher value components/sub-components of assets that is undertaken on a regular cycle including repainting, building roof replacement, cycle, replacement of air conditioning equipment, etc. This work generally falls below the capital/ maintenance threshold and needs to be identified in a specific maintenance budget allocation.

**Depreciable amount**

The cost of an asset, or other amount substituted for its cost, less its residual value (AASB 116.6)

**Depreciated replacement cost (DRC)**

The current replacement cost (CRC) of an asset less, where applicable, accumulated depreciation calculated on the basis of such cost to reflect the already consumed or expired future economic benefits of the asset

**Depreciation / amortisation**

The systematic allocation of the depreciable amount (service potential) of an asset over its useful life.

**Economic life**

See useful life definition.

**Expenditure**

The spending of money on goods and services. Expenditure includes recurrent and capital.

**Fair value**

The amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties, in an arms length transaction.

**Greenfield asset values \*\***

Asset (re)valuation values based on the cost to initially acquire the asset.

**Heritage asset**

An asset with historic, artistic, scientific, technological, geographical or environmental qualities that is held and maintained principally for its contribution to knowledge and culture and this purpose is central to the objectives of the entity holding it.

**Impairment Loss**

The amount by which the carrying amount of an asset exceeds its recoverable amount.

**Infrastructure assets**

Physical assets of the entity or of another entity that contribute to meeting the public's need for access to major economic and social facilities and services, eg. roads, drainage, footpaths and cycleways. These are typically large, interconnected networks or portfolios of composite assets. The components of these assets may be separately maintained, renewed or replaced individually so that the required level and standard of service from the network of assets is continuously sustained. Generally the components and hence the assets have long lives. They are fixed in place and are often have no market value.

**Investment property**

Property held to earn rentals or for capital appreciation or both, rather than for:

- (a) use in the production or supply of goods or services or for administrative purposes; or
- (b) sale in the ordinary course of business (AASB 140.5)

**Level of service**

The defined service quality for a particular service against which service performance may be measured. Service levels usually relate to quality, quantity, reliability, responsiveness, environmental, acceptability and cost).

**Life Cycle Cost \*\***

The life cycle cost (LCC) is average cost to provide the service over the longest asset life cycle. It comprises annual maintenance and asset consumption expense, represented by depreciation expense. The Life Cycle Cost does not indicate the funds required to provide the service in a particular year.

**Life Cycle Expenditure \*\***

The Life Cycle Expenditure (LCE) is the actual or planned annual maintenance and capital renewal expenditure incurred in providing the service in a particular year. Life Cycle Expenditure may be compared to Life Cycle Cost to give an initial indicator of life cycle sustainability.

**Loans / borrowings**

Loans result in funds being received which are then repaid over a period of time with interest (an additional cost). Their primary benefit is in 'spreading the burden' of capital expenditure over time. Although loans enable works to be completed sooner, they are only ultimately cost effective where the capital works funded (generally renewals) result in operating and maintenance cost savings, which are greater than the cost of the loan (interest and charges).

**Maintenance and renewal gap**

Difference between estimated budgets and projected expenditures for maintenance and renewal of assets, totalled over a defined time (eg 5, 10 and 15 years).

## **Maintenance and renewal sustainability index**

Ratio of estimated budget to projected expenditure for maintenance and renewal of assets over a defined time (eg 5, 10 and 15 years).

### **Maintenance expenditure**

Recurrent expenditure, which is periodically or regularly required as part of the anticipated schedule of works required to ensure that the asset achieves its useful life and provides the required level of service. It is expenditure, which was anticipated in determining the asset's useful life.

### **Materiality**

An item is material if its omission or misstatement could influence the economic decisions of users taken on the basis of the financial report. Materiality depends on the size and nature of the omission or misstatement judged in the surrounding circumstances.

### **Modern equivalent asset.**

A structure similar to an existing structure and having the equivalent productive capacity, which could be built using modern materials, techniques and design. Replacement cost is the basis used to estimate the cost of constructing a modern equivalent asset.

### **Non-revenue generating investments**

Investments for the provision of goods and services to sustain or improve services to the community that are not expected to generate any savings or revenue to the CoM, eg. parks and playgrounds, footpaths, roads and bridges, libraries, etc.

### **Operating expenditure**

Recurrent expenditure, which is continuously required excluding maintenance and depreciation, eg power, fuel, staff, plant equipment, on-costs and overheads.

### **Pavement management system**

A systematic process for measuring and predicting the condition of road pavements and wearing surfaces over time and recommending corrective actions.

### **Planned Maintenance\*\***

Repair work that is identified and managed through a maintenance management system (MMS). MMS activities include inspection, assessing the condition against failure/breakdown criteria/experience, prioritising scheduling, actioning the work and reporting what was done to develop a maintenance history and improve maintenance and service delivery performance.

### **PMS Score**

A measure of condition of a road segment determined from a Pavement Management System.

### **Rate of annual asset consumption\***

A measure of average annual consumption of assets (AAAC) expressed as a percentage of the depreciable amount (AAAC/DA). Depreciation may be used for AAAC.

### **Rate of annual asset renewal\***

A measure of the rate at which assets are being renewed per annum expressed as a percentage of depreciable amount (capital renewal expenditure/DA).

### **Rate of annual asset upgrade\***

A measure of the rate at which assets are being upgraded and expanded per annum expressed as a percentage of depreciable amount (capital upgrade/expansion expenditure/DA).

### **Reactive maintenance**

Unplanned repair work that carried out in response to service requests and management/supervisory directions.

### **Recoverable amount**

The higher of an asset's fair value, less costs to sell and its value in use..

**Recurrent expenditure**

Relatively small (immaterial) expenditure or that which has benefits expected to last less than 12 months. Recurrent expenditure includes operating and maintenance expenditure.

**Recurrent funding**

Funding to pay for recurrent expenditure.

**Rehabilitation**

See capital renewal expenditure definition above.

**Remaining life**

The time remaining until an asset ceases to provide the required service level or economic usefulness. Age plus remaining life is economic life.

**Renewal**

See capital renewal expenditure definition above.

**Residual value**

The net amount which an entity expects to obtain for an asset at the end of its useful life after deducting the expected costs of disposal.

**Revenue generating investments**

Investments for the provision of goods and services to sustain or improve services to the community that are expected to generate some savings or revenue to offset operating costs, eg public halls and theatres, childcare centres, sporting and recreation facilities, tourist information centres, etc.

**Risk management**

The application of a formal process to the range of possible values relating to key factors associated with a risk in order to determine the resultant ranges of outcomes and their probability of occurrence.

**Section or segment**

A self-contained part or piece of an infrastructure asset.

**Service potential**

The capacity to provide goods and services in accordance with the entity's objectives, whether those objectives are the generation of net cash inflows or the provision of goods and services of a particular volume and quantity to the beneficiaries thereof.

**Service potential remaining\***

A measure of the remaining life of assets expressed as a percentage of economic life. It is also a measure of the percentage of the asset's potential to provide services that is still available for use in providing services (DRC/DA).

**Strategic Management Plan (SA)\*\***

Documents CoM objectives for a specified period (3-5 yrs), the principle activities to achieve the objectives, the means by which that will be carried out, estimated income and expenditure, measures to assess performance and how rating policy relates to the CoM's objectives and activities.

**Sub-component**

Smaller individual parts that make up a component part.

**Useful life**

Either:

- (a) the period over which an asset is expected to be available for use by an entity, or
- (b) the number of production or similar units expected to be obtained from the asset by the entity.

It is estimated or expected time between placing the asset into service and removing it from service, or the estimated period of time over which the future economic benefits embodied in a depreciable asset, are expected to be consumed by the CoM. It is the same as the economic life.

**Value in Use**

The present value of estimated future cash flows expected to arise from the continuing use of an asset and from its disposal at the end of its useful life. It is deemed to be depreciated replacement cost (DRC) for those assets whose future economic benefits are not primarily dependent on the asset's ability to generate new cash flows, where if deprived of the asset its future economic benefits would be replaced.

Source: DVC 2006, Glossary

Note: Items shown \* modified to use DA instead of CRC  
Additional glossary items shown \*\*

## ABBREVIATIONS

<b>AAAC</b>	Average annual asset consumption
<b>AMP</b>	Asset management plan
<b>ARI</b>	Average recurrence interval
<b>BOD</b>	Biochemical (biological) oxygen demand
<b>CRC</b>	Current replacement cost
<b>CWMS</b>	Community wastewater management systems
<b>DA</b>	Depreciable amount
<b>DoH</b>	Department of Health
<b>EF</b>	Earthworks/formation
<b>IRMP</b>	Infrastructure risk management plan
<b>LCC</b>	Life Cycle cost
<b>LCE</b>	Life cycle expenditure
<b>MMS</b>	Maintenance management system
<b>PCI</b>	Pavement condition index
<b>RV</b>	Residual value
<b>SS</b>	Suspended solids
<b>vph</b>	Vehicles per hour

**APPENDICES**

**Appendix 1: Reserves/Turf**

Levels of Service

Risk Register

**Appendix 2: Road Reserves/Streetscapes**

Levels of Service

Risk Register

**Appendix 3: Natural Area**

Levels of Service

Risk Register

**Appendix 4: Trees**

Levels of Service

Risk Register

**Appendix 5: Irrigation**

Levels of Service

Risk Register

**Appendix 6: Playgrounds**

Levels of Service

Risk Register

**Appendix 7: Structures/Outdoor Furniture**

Levels of Service

Risk Register

Levels of Service (Reserves/Turf)

Key Performance Measure	Level of Service	Performance Measure Process	Performance Target	Current Performance
COMMUNITY LEVELS OF SERVICE				
Quality	<ul style="list-style-type: none"> <li>Ensure reserve available for appropriate structured, unstructured sporting, recreational and community activity all year to anticipated standard</li> <li>Quality pitch and playing surface.</li> <li>Rubbish and graffiti free and clean reserve</li> <li>Even and safe playing fields</li> <li>Green reserves that are weed free</li> </ul>	<ol style="list-style-type: none"> <li>Feedback from customers, pathways Dataworks</li> <li>Biannual survey of users</li> <li>Preseason meetings</li> <li>Point of contacts</li> <li>Annual usage surveys</li> </ol>	<ol style="list-style-type: none"> <li>Community recreation to KPI</li> <li>DelSurv target 75% biannual survey</li> <li>Summer and winter preseason meetings with key users</li> <li>1<sup>st</sup> point of contact to represent key users in the City</li> <li>Conducted by Recreation</li> <li>100% completion of requests generated within specified time frames</li> </ol>	<ol style="list-style-type: none"> <li>On Target</li> <li>NA</li> <li>Held</li> <li>Position filled</li> <li>Conducted</li> <li>NA</li> </ol>
Function	<ul style="list-style-type: none"> <li>Availability for training, games and functions</li> <li>Ensure playing surface is fit for purpose</li> <li>Sports and reserve lighting</li> <li>Ensure that the use of amenities is fit for purpose</li> </ul>	<ol style="list-style-type: none"> <li>Feedback from customers, pathways Dataworks</li> <li>Biannual survey of users</li> <li>Preseason meetings</li> <li>Booking of reserve for functions</li> <li>Annual usage survey</li> </ol>	<ol style="list-style-type: none"> <li>100% Completion of requests generated received within specific time frames Community recreation to KPI</li> <li>DelSurv target 75%</li> <li>Biannual survey</li> <li>Book of reserves to ensure no clash of events</li> <li>Conducted by Recreation</li> </ol>	<ol style="list-style-type: none"> <li>On Target</li> <li>completed Feb 2010</li> <li>On target</li> <li>Bookings officer signage at reserves temporary hire permits</li> <li>To be completed July 2010</li> </ol>
Safety	<ul style="list-style-type: none"> <li>Even and safe playing fields free of pot holes and hazards</li> <li>Free of health hazards</li> <li>Environmental and health concerns around the use of chemicals</li> </ul>	<ol style="list-style-type: none"> <li>Public liability claims and number of reported incidents and number of customer complaints received</li> <li>Scheduled reserve maintenance</li> <li>Report incidents – pathways dataworks</li> <li>JSA's Loss Time Injury / Public Liability</li> </ol>	<ol style="list-style-type: none"> <li>No reported incidents</li> <li>Inspections weekly on active surface 3 weekly surrounds</li> <li>All reported incidents are completed within 3 days</li> <li>reported within 3 days</li> </ol>	<ol style="list-style-type: none"> <li>NA</li> <li>5 weekly cycles for reserve maintenance</li> <li>On target</li> <li>On target</li> </ol>
TECHNICAL LEVELS OF SERVICE				
Condition	<ol style="list-style-type: none"> <li>Ensure the reserve available for the appropriate structured, unstructured sporting and recreational activity all year and maintained to the appropriate standard</li> <li>Ensure balance distribution across the city</li> </ol>	<ol style="list-style-type: none"> <li>Scheduled broad acre mowing for active area and reserve maintenance</li> <li>Scheduled herbicide and fertiliser programs</li> <li>Turf replacement program</li> <li>Independent audit of turf surfaces</li> <li>Bookings of reserves</li> </ol>	<ol style="list-style-type: none"> <li>Broad acre mowing weekly, 3 weekly surrounds,</li> <li>Scheduled herbicide, renovation and fertiliser programs annually</li> <li>Annual turf replacement program</li> <li>Quarterly independent audit or turf surfaces</li> </ol>	<ol style="list-style-type: none"> <li>Currently making 5 weekly cycles due to plant staff and unseasonal weather</li> <li>On target</li> <li>On target</li> <li>On target</li> </ol>

<p>Accessibility / Functionality</p>	<ul style="list-style-type: none"> <li>• Ensure balanced distribution of open space across the city</li> <li>• Ensure multi use, are fit for purpose</li> </ul>	<ol style="list-style-type: none"> <li>1. Public open space strategy</li> <li>2. Management of bookings</li> </ol>	<ol style="list-style-type: none"> <li>1. Bi annual allocation for sporting clubs. 10 year review of strategy</li> <li>2. Seasonal Ground allocation</li> <li>3. Booking officer – no clash of events</li> </ol>	<ol style="list-style-type: none"> <li>1. Seasonal allocation of reserves Currently 4 years behind</li> <li>2. On target</li> <li>3. On target</li> </ol>
<p>Safety</p>	<ul style="list-style-type: none"> <li>• Ensure provision of safe, hazard free active surface for structured and unstructured sports and recreational and community activities</li> </ul>	<ol style="list-style-type: none"> <li>1. Scheduled reserve maintenance</li> <li>2. Report incidents – pathways Dataworks.</li> <li>3. Internal feedback</li> <li>4. Take 5's/JSA's Loss Time Injury/Public Liability</li> </ol>	<ol style="list-style-type: none"> <li>1. Inspections weekly on active surface 3 weekly for surrounds zero incidents</li> <li>2. All reported incidents are completed within 3 days</li> <li>3. Report with in 3 days</li> <li>4. 100%Completion of requests within specified time frames</li> </ol>	<ol style="list-style-type: none"> <li>1. 5 weekly cycle of passive reserves</li> <li>2. On target</li> <li>3. On target</li> <li>4. On target</li> </ol>

Risk Register (Reserves/Turf)

RISK IDENTIFICATION						RISK ANALYSIS					RISK TREATMENT	
Risk No.	Asset at Risk	What can happen?	When can it occur?	Possible cause	Existing controls	Is risk credible?	Likelihood	Consequences	Risk rating	Action required	Is risk acceptable?	Treatment option(s)
1	Natural areas, in particular wetland areas and foreshore areas	Altered Hydrology, decline and death of plant species due to lowering ground water table	Anytime in the future	Changes in rainfall, excessive ground water use, catchment alterations and changes to drainage	Winter and summer reticulation bans. Hydrozoning and landscape designs altered to reduce dependence on water	Yes	Likely	Moderate	High	Prioritised action required		Perform study to confirm ground water depletion. Reduction of reticulated areas within the city. Education process for private ground water users.
2	Turf	Herbicide damage	Within 1 year	Concentration chemical application method	Tissue analysis, chemical contractor tendered, sign park, notice paper, monitor system	Yes	Likely	Minor	Medium	Planned action required	Yes	No spray list water licence effect ability to irrigate herbicides
3		Turf surface failure	Anytime now	Vandalism use/players, traffic, foot, disease, divets	Scheduled maintenance, turf renovation program, audits, grand maintenance request, preseason maintenance, bollards	Yes	Almost certain	Minor	High	Prioritised action required	Yes	Scheduled maintenance, turf renovation program, audits, grand maintenance request, presentation meeting

Levels of Service (Road Reserves/Streetscapes)

Key Performance Measure	Level of Service	Performance Measure Process	Performance Target	Current Performance
<b>COMMUNITY LEVELS OF SERVICE</b>				
Quality	<ul style="list-style-type: none"> <li>• Neat and maintained</li> <li>• Appropriate landscape selection that is aesthetically appealing</li> </ul>	<ol style="list-style-type: none"> <li>1. Maintenance schedules</li> <li>2. Customer requests and complaints pathway and Dataworks requests</li> <li>3. DelSurv</li> </ol>	<ol style="list-style-type: none"> <li>1. Meet maintenance schedule requirements</li> <li>2. 100% completion of requests received within specified time frames</li> <li>3. Bi annually DelSurv for streetscapes Monthly for capital works projects</li> </ol>	<ol style="list-style-type: none"> <li>1. Maintenance schedules currently 5 weekly cycles</li> <li>2. 100% completed</li> <li>3. On target – Quarterly capital works survey</li> </ol>
Function	<ul style="list-style-type: none"> <li>• Usability</li> </ul>	<ol style="list-style-type: none"> <li>1. Maintenance schedules</li> <li>2. Customer requests and complaints pathway and Dataworks requests</li> </ol>	<ol style="list-style-type: none"> <li>1. As per schedule 3 weekly Passive, Weekly active</li> <li>2. 100% completion of requests received within specified time frames</li> </ol>	<ol style="list-style-type: none"> <li>1. 5 weekly cycle for passive maintenance</li> <li>2. On target</li> </ol>
Safety	<ul style="list-style-type: none"> <li>• Free of hazards</li> </ul>	<ol style="list-style-type: none"> <li>1. Public liability claims, incident and accident reports</li> </ol>	<ol style="list-style-type: none"> <li>1. 0 Incidents</li> </ol>	<ol style="list-style-type: none"> <li>1. NA</li> </ol>
<b>TECHNICAL LEVELS OF SERVICE</b>				
Condition	<ul style="list-style-type: none"> <li>• Neat and maintained</li> <li>• Appropriate landscape selection that is aesthetically appealing</li> </ul>	<ol style="list-style-type: none"> <li>1. Maintenance schedules and forward works program</li> <li>2. 3<sup>rd</sup> party agreements</li> <li>3. Customer requests and complaints pathway and Dataworks requests</li> </ol>	<ol style="list-style-type: none"> <li>1. Maintenance schedule ledgers are maintained monthly</li> <li>2. Meet contractual agreements monthly</li> <li>3. 100% Completion of requests within specified time frames</li> </ol>	<ol style="list-style-type: none"> <li>1. On target</li> <li>2. Require review of contract specification</li> <li>3. 100% Completed</li> </ol>
Accessibility / Functionality	<ul style="list-style-type: none"> <li>• Ensure fit for all purpose</li> </ul>	<ol style="list-style-type: none"> <li>1. Design specification</li> <li>2. Capital works program</li> </ol>	<ol style="list-style-type: none"> <li>1. Adhere to landscape strategy</li> <li>2. NA</li> </ol>	<ol style="list-style-type: none"> <li>1. On target</li> <li>2. NA</li> </ol>
Safety	<ul style="list-style-type: none"> <li>• Ensure provision of safe, hazard free space</li> </ul>	<ol style="list-style-type: none"> <li>1. Public liability</li> <li>2. Internal feedback</li> <li>3. Scheduled maintenance</li> <li>4. Customer requests and complaints pathways and Dataworks requests</li> </ol>	<ol style="list-style-type: none"> <li>1. Zero incidents</li> <li>2. All reported incidents are completed within 3 days</li> <li>3. 3 Weekly cycles passive and weekly for active reserves</li> <li>4. 100% Completion of requests within specified time frames</li> </ol>	<ol style="list-style-type: none"> <li>1. NA</li> <li>2. On target</li> <li>3. 5 weekly cycles passive reserves</li> <li>4. 98% completed</li> </ol>

Risk Register (Road Reserves/Streetscapes)

RISK IDENTIFICATION							RISK ANALYSIS					RISK TREATMENT
Risk No.	Asset at Risk	What can happen?	When can it occur?	Possible cause	Existing controls	Is risk credible?	Likelihood	Consequences	Risk rating	Action required	Is risk acceptable?	Treatment option(s)
1	Vehicles property	Rock injury causing damage to property	Anytime now	Projectile	Rear discharge mower, visual inspection, mow in the same flow as traffic, mulching blades spray under trees as preventative maintenance, take 5 inspections	Yes	Almost certain	Minor	High	Prioritised action required		Scheduled maintenance. Increase hydrozone/ecozone
2		Infield component failure	Anytime now	Vandalism, age of asset, conflict works	Scheduled maintenance, pathway reports.	Yes	Almost certain	Minor	High	Prioritised action required		Contractor monitoring in reticulation areas. Process spare parts. Scheduled maintenance, reaction times
3	Other services	Break optic fibre, sewerage, gas, water, power (underground) lines	Anytime now	Excavation conflict with capital works	New assets are on plans, dial before you dig, contrast a qualified locator, locate, survey then input to GIS	Yes	Almost certain	Minor	High	Prioritised action required		Relocate service if needed, repair

### Levels of Service (Natural Area)

Key Performance Measure	Level of Service	Performance Measure Process	Performance Target	Current Performance
<b>COMMUNITY LEVELS OF SERVICE</b>				
Quality	Aesthetics of the bushland and surrounding areas are pleasing	1. Maintenance Schedules 2. Customer requests, pathways and Dataworks	1. Meet maintenance schedule requirements (monthly cycle) 2. 100% completion of requests received within time frames when appropriate	1. Currently running 5-6 weekly cycle through 80% of reserves 2. 100% completed
	Bushland and surrounds are kept healthy and weed free	1. Maintenance Schedules 2. Customer requests, pathways and Dataworks	1. Meet maintenance schedule requirements (monthly cycle) 2. 100% completion of requests received within time frames when appropriate	1. Currently running 5-6 weekly cycle through 80% of reserves 2. 100% completed
Function	Natural Areas provide habitat for local fauna & flora	Vegetation condition assessments of P1 bushlands	Improvement in condition assessments carried out every 5 years	Not data available
Safety	Chemical usage in reserves is minimised	Customer requests and complaints	No set target	N/A
	Natural areas fuel loading is minimised to reduce fire threat	1. Maintenance Schedules 2. Customer requests, pathways and Dataworks	1. Meet maintenance schedule requirements (monthly cycle) 2. 100% completion of requests received within time frames when appropriate	1. Currently running 5-6 weekly cycle through 80% of reserves 2. 100% completed
	Ensure that bushland and surrounding areas are hazard free	1. Public liability claims 2. Customer requests, pathways and Dataworks	1. 0 incidents 2. 100% completion of requests received within time frames when appropriate	1. N/A 2. 100% completed
<b>TECHNICAL LEVELS OF SERVICE</b>				
Condition	Provide appropriate resources to fulfil council requirements depending on priority rating	1. Maintenance Schedules 2. Customer requests, pathways and Dataworks 3. Internal Audits	1. Meet maintenance schedule requirements (monthly cycle) 2. 100% completion of requests received within time frames when appropriate	1. Currently running 5-6 weekly cycle through 80% of reserves 2. 100% completed
Safety	Provide natural areas that are free from hazards	1. Maintenance Schedules 2. Customer requests, pathways and Dataworks 3. Public liability claims	1. Meet maintenance schedule requirements (monthly cycle) 2. 100% completion of requests received within time frames when appropriate 3. 0 incidents	1. Currently running 5-6 weekly cycle through 80% of reserves 2. 100% completed 3. 0 incidents

Risk Register (Natural Area)

	Asset at Risk	What can happen?	When can it occur?	Possible cause	Existing controls	Is Risk Credible?	Likelihood	Consequences	Risk rating	Action required	Treatment option(s)
1	Natural Areas, Foreshore Areas	Vandalism, illegal clearing, tree poisoning	Anytime now	Vandals	CCS Patrols, PR Signage, threat of prosecution under state government legislation	Yes	Almost certain	Moderate	Extreme	Yes	Introduction of local laws including large \$ fines for vandalism. Increase in fines for illegal dumping, start enforcing instead of educating. Introduction of vandalism signage similar to river areas in remaining natural areas
2	Natural Areas	Introduction of <i>Phytophthora cinnamomi</i> - Dieback	Anytime now	Spread of infected soil by vehicle, pedestrian and animal movement. Introduction of contaminated soils	Selection of nurseries, mulch selection, regular inspections and treatment by contractor, Enviro Team washes down after entering known affected areas	Yes	Likely	Moderate	High	Yes	Ensure that internal staff and contractors are trained/ educated about Dieback. Introduce Mandatory cleaning of vehicles and equipment. Improved hygiene practices. External fencing of reserves to prevent dumping, internal fencing of reserves to prevent pedestrian access off of hard paths.
3	Natural Areas	Weed invasion	Anytime now	Seed spread by birds, water runoff, garden refugee dumping, wind, contaminated soils, pedestrian movement	Weed control undertaken in natural areas to limit spread, some GPT installed on drains, limited amount of fencing.	Yes	Almost certain	Moderate	Extreme	Yes	External fencing of reserves to prevent dumping of garden refuge. GPT's installed in all drains leading to natural areas including a fine filtration system. Large increase of funding towards weed control, relating to existing priority system.
5	Natural Areas	Bushfires	Anytime now	Introduction of weed species, altered vegetation structures, increased fuel loads	Firebreaks, annual grass weed control programme	Yes	Almost certain	Major	Extreme	Yes	Large increase of funding for grass and weed control program. Assessing Priority 3 reserves to determine whether advisable to keep as natural areas or develop into passive recreation. Funding allocated to develop into passive recreation if determined.
6	Natural Areas	Growth/spread of feral animals including insects, birds, and mammals, loss of native fauna	Anytime now	Animal movement between reserves, cats from nearby residential areas	Fox control program, removal of bee hives when located in P1 reserves	Yes	Almost certain	Moderate	Extreme	Yes	City wide eradication programme targeting Feral Bees, Foxes, and Rabbits. Introduction of cat exclusion zones surrounding natural areas. Culling programme targeting introduced bird species. Increase in nesting boxes and habitats for depleting fauna species.

7	Natural areas, in particular wetland areas and foreshore areas	Altered Hydrology, decline and death of plant species due to lowering ground water table	Anytime in the future	Changes in rainfall, excessive ground water use, catchment alterations and changes to drainage	Winter and summer reticulation bans. Hydrozoning and landscape designs altered to reduce dependence on water	Yes	Likely	Moderate	High	Yes	Perform study to confirm ground water depletion. Reduction of reticulated areas within the city. Education process for private ground water users.
8	Natural Areas	Removal of dead timber structures within reserves, loss of habitat	Anytime in the future	Firewood collection, presentation of N/areas, conception that dead wood is fire hazard	Removal only 10m from outside boundaries of natural areas, hollows left in place, size restrictions on removal of timber	Yes	Almost certain	Minor	High	Yes	
9	Natural areas, in particular wetland areas and foreshore areas	Pollutant contamination of soil, air and water	Anytime now	Runoff from surrounding land uses, dumping of rubbish, excessive fertiliser use	Local laws regarding dumping, some GPT's installed	Yes	Almost certain	Moderate	Extreme	Yes	External fencing of reserves to prevent dumping of garden refuge. GPT's installed in all drains leading to natural areas including a fine filtration system.
10	Natural Areas (Banksia Woodlands)	Death of Banksias from reticulation systems	Anytime in the future	Reticulation overspray, unmaintained and ill designed retic systems	Nil	Yes	Almost certain	Moderate	Extreme	Yes	Redesign and calibration of reticulation systems to spray away from natural areas
11	Foreshores	Excessive erosion causing loss of vegetation and stability	Anytime now	Recreation users on boats causing wake, loss of vegetation, storm surges	Capital foreshore works, rock stabilisation, planting, coir logging, development of Foreshore Management Plan	Yes	Almost certain	Major	Extreme	Yes	Implementation of Foreshore Management Plan as quickly as possible, will require an increase in funding for capital and revegetation works along the foreshore area.

## Levels of Service (Trees)

Key Performance Measure	Level of Service	Performance Measure Process	Performance Target	Current Performance
<b>COMMUNITY LEVELS OF SERVICE</b>				
Quality	<ul style="list-style-type: none"> <li>Suitable species</li> <li>Aesthetics</li> <li>Location</li> <li>Falling leaves</li> <li>Healthy disease free</li> </ul>	<ol style="list-style-type: none"> <li>DelSurv for new installation of trees</li> <li>Customer requests and complaints</li> <li>New planting requests</li> </ol>	<ol style="list-style-type: none"> <li>No target for DelSurv</li> <li>NA</li> <li>100% Completion of requests generated for new planting within 1year</li> </ol>	<ol style="list-style-type: none"> <li>NA</li> <li>NA</li> <li>New Street Planting Requests completed 63% within 1 year</li> </ol>
Function	<ul style="list-style-type: none"> <li>Aesthetics</li> <li>Habitat</li> </ul>	<ol style="list-style-type: none"> <li>Survey process and consultation for new planting</li> <li>Number of tree requests and complaints</li> </ol>	<ol style="list-style-type: none"> <li>No set target</li> <li>No Set target</li> </ol>	<ol style="list-style-type: none"> <li>No data available</li> <li>No data available</li> </ol>
Safety	<ul style="list-style-type: none"> <li>Fire hazard</li> <li>Storm</li> <li>Minimum distance from power lines</li> <li>Clear of road and footpaths</li> <li>No trip hazards or damage to drive ways</li> </ul>	<ol style="list-style-type: none"> <li>Quarterly reports from Alinta Gas/ Western Power/ Main roads / Telstra</li> <li>Customer and community complaints</li> </ol>	<ol style="list-style-type: none"> <li>Target of complaints is 0</li> <li>Target for complaints is 0</li> </ol>	<ol style="list-style-type: none"> <li>6 reports with 120 trees per report received from Western Power</li> <li>Tree safety related incidents 100% completed</li> </ol>
<b>TECHNICAL LEVELS OF SERVICE</b>				
Condition	<ul style="list-style-type: none"> <li>Ensure trees are disease free</li> <li>Healthy and safe and suitable for their environment</li> </ul>	<ol style="list-style-type: none"> <li>Reactive maintenance</li> <li>Visual assessment as per maintenance program</li> <li>Reactive maintenance is pathway prioritised</li> </ol>	<ol style="list-style-type: none"> <li>Reactive maintenance is 100% Completion of requests generated</li> <li>Emergency works completed within 24hrs</li> <li>250 trees planted per year</li> </ol>	<ol style="list-style-type: none"> <li>100% completed</li> <li>Emergency and planting 100% complete</li> <li>83% of Pathway request for new trees completed</li> </ol>
Accessibility / Functionality	<ul style="list-style-type: none"> <li>Ensure trees are retained and protected as per council policy and maintained as per Australian Standards</li> </ul>	<ol style="list-style-type: none"> <li>Visual assessment</li> <li>Measured against customer complaints and requests</li> </ol>	<ol style="list-style-type: none"> <li>No set target</li> <li>No set target</li> </ol>	<ol style="list-style-type: none"> <li>No Data</li> <li>No Data</li> </ol>
Safety	<ul style="list-style-type: none"> <li>Ensure that trees are safe, do not contribute to any other adjacent safety issues such as roads and footpaths, powerlines, drains</li> </ul>	<ol style="list-style-type: none"> <li>Underwire pruning program</li> <li>Double road sweep, root barrier policy</li> <li>Contract management</li> <li>Number of complaints and reported incidents received</li> <li>Number of tree related insurance claims</li> <li>Use of take 5/ pathway/ JSA's Loss Time Injury/ Public Liability / Internal Feedback</li> </ol>	<ol style="list-style-type: none"> <li>Regular underwire pruning program to be completed on a bi annual basis</li> <li>Development of root barrier policy. Road sweeping maintenance program</li> <li>Underwire tree pruning tender amenity tree pruning tender. Ensure contractors operate within tender specification.</li> <li>100% Completion of requests generated received within specific time frames</li> <li>All reported incidents completed 100%</li> <li>No reported incidents</li> </ol>	<ol style="list-style-type: none"> <li>100%completed</li> <li>NA</li> <li>Contractor is meeting tender specifications</li> <li>100% of pathway requests completed</li> <li>Public Liability claims 34</li> <li>2,600 tree related pathways 2008/2009 Take 5 completed by each team 3x daily, JSA to be developed</li> </ol>

Risk Register (Trees)

RISK IDENTIFICATION							RISK ANALYSIS					RISK TREATMENT
Risk No.	Asset at Risk	What can happen?	When can it occur?	Possible cause	Existing controls	Is risk credible?	Likelihood	Consequences	Risk rating	Action required	Is risk acceptable?	Treatment option(s)
1	Natural Areas, Foreshore Areas	Vandalism, illegal clearing, tree poisoning	Anytime now	Vandals	CCS Patrols, PR Signage, threat of prosecution under state government legislation	Yes	Almost certain	Moderate	High	Prioritised action required		Introduction of local laws including large \$ fines for vandalism. Increase in fines for illegal dumping, start enforcing instead of educating. Introduction of vandalism signage similar to river areas in remaining natural areas
2	Natural Areas	Removal of dead timber structures within reserves, loss of habitat	Anytime in the future	Firewood collection, presentation of N/areas, conception that dead wood is fire hazard	Removal only 10m from outside boundaries of natural areas, hollows left in place, size restrictions on removal of timber	Yes	Almost certain	Minor	High	Prioritised action required		
3	Tree	Structural failure	Anytime now	Lightning, wind (environmental factors), disease, vandalism, age of asset, property damage	Inspect on request via pathways, or bicultural independent audits on request, available field staff, reactive maintenance program, powerlines, pruning program, powerlines tender amenity tree pruning tender	Yes	Almost certain	Moderate	High	Prioritised action required	No	Asset inspection register, street tree audit, scheduled maintenance program
4		Unauthorised pruning/removals, poisoning	Anytime now	Vandalism	Street tree inspections by arboricultural officer send out non compliance letters, infringements, customer requests	Yes	Almost certain	Minor	High	Prioritised action required	No	Inspections, non compliance letters
5		Removals	Anytime now	Conflict with services, development, age of asset	COM tree policy, no removals, DAU street tree assessment remove/replace policy, COM crossover policy/specifications, local government act section 12	Yes	Almost certain	Minor	High	Prioritised action required		Significant tree register, street tree audit. COM policy reinforcement, DAU assessments increase

## Levels of Service (Irrigation)

Key Performance Measure	Level of Service	Performance Measure Process	Performance Target	Current Performance
<b>COMMUNITY LEVELS OF SERVICE</b>				
Quality	<ul style="list-style-type: none"> <li>Use of Australian made products</li> <li>Efficient system to irrigate</li> <li>Quality of water used</li> </ul>	<ol style="list-style-type: none"> <li>Tender specifications</li> <li>Visual and efficiency assessment</li> <li>Pathway and Dataworks complaints and suggestions received</li> <li>Testing of water quality</li> </ol>	<ol style="list-style-type: none"> <li>NA</li> <li>NA</li> <li>100% Completion of requests generated received within specific time frames</li> <li>NA</li> </ol>	<ol style="list-style-type: none"> <li>Tender specifications met</li> <li>Visual assessment Wellbeing survey 93% of residents are satisfied with the City of Melville</li> <li>100% of Pathways received actioned this year</li> <li>NA</li> </ol>
Function	<ul style="list-style-type: none"> <li>Avoid conflict and overspray</li> <li>Good working order</li> <li>Efficiency of use of water</li> <li>Time of operation</li> <li>Fit for purpose</li> </ul>	<ol style="list-style-type: none"> <li>Visual and efficiency assessments</li> <li>Complaints received</li> <li>Sprinkler regulation awareness</li> </ol>	<ol style="list-style-type: none"> <li>NA</li> <li>NA</li> <li>Operate as per water licence or sprinkler bans</li> </ol>	<ol style="list-style-type: none"> <li>NA</li> <li>NA</li> <li>Licence requirements and sprinkler ban requirements met</li> </ol>
Safety	<ul style="list-style-type: none"> <li>No trip hazard or holes</li> </ul>	<ol style="list-style-type: none"> <li>No injuries</li> <li>Public liability, complaint process</li> </ol>	<ol style="list-style-type: none"> <li>NA</li> <li>NA</li> </ol>	<ol style="list-style-type: none"> <li>NA</li> <li>NA</li> </ol>
<b>TECHNICAL LEVELS OF SERVICE</b>				
Condition	<ul style="list-style-type: none"> <li>Reliable and efficient systems placed at appropriate location provided and maintained</li> <li>Reliability</li> <li>Efficiency</li> <li>Appropriate service</li> <li>Ground water licence</li> </ul>	<ol style="list-style-type: none"> <li>Monthly reading of flow meters</li> <li>Annual Asset condition rating</li> <li>Irrigation replacement program</li> <li>Compliance ground water licence</li> <li>Adhere to groundwater strategy</li> </ol>	<ol style="list-style-type: none"> <li>Completion of Biannual audits</li> <li>Annual asset condition assessment</li> <li>Annual Capital works replacement program</li> <li>Annual report of volumes to Department of Water turnaround times</li> <li>10% under ground water allocation</li> </ol>	<ol style="list-style-type: none"> <li>On target</li> <li>On target</li> <li>Completed December 2009</li> <li>Monthly meter readings and biannual forecast and annual report to Department of Water</li> <li>Breached Pt Walter ground water licence by 100%. Amalgamate all groundwater licences and classify reserves due to water requirements.</li> </ol>
Accessibility / Functionality	<ul style="list-style-type: none"> <li>Efficient distribution of water through central irrigation system</li> </ul>	<ol style="list-style-type: none"> <li>Central irrigation system</li> <li>Irrigation maintenance audit</li> </ol>	<ol style="list-style-type: none"> <li>Weekly irrigation</li> <li>5% of all sight maintenance</li> </ol>	<ol style="list-style-type: none"> <li>On target</li> <li>On target</li> </ol>
Safety	<ul style="list-style-type: none"> <li>Ensure no trip hazards and holes</li> </ul>	<ol style="list-style-type: none"> <li>Pathway</li> <li>Use of take 5/ pathway/ JSA's Loss Time Injury</li> <li>Public Liability</li> <li>Internal feedback</li> </ol>	<ol style="list-style-type: none"> <li>Pathways set turnaround times</li> <li>0%LTI</li> <li>100% Completion of requests generated received within 3days</li> <li>All reported incidents completed 100%</li> </ol>	<ol style="list-style-type: none"> <li>On target</li> <li>12</li> <li>On target</li> <li>On target</li> </ol>

Risk Register (Irrigation)

RISK IDENTIFICATION						ANALYSIS RISK					RISK TREATMENT	
Risk No.	Asset at Risk	What can happen?	When can it occur?	Possible cause	Existing controls	Is risk credible?	Likelihood	Consequences	Risk rating	Action required	Is risk acceptable?	Treatment option(s)
1	Natural areas, in particular wetland areas and foreshore areas	Altered Hydrology, decline and death of plant species due to lowering ground water table	Anytime now	Changes in rainfall, excessive ground water use, catchment alterations and changes to drainage	Hydro zoning and landscape designs altered to reduce dependence on water;	Yes	Likely	Moderate	High	Prioritised action required		Perform study to confirm ground water depletion. Reduction of reticulated areas within the city. Education process for private ground water users.
2	Over extraction licence issues	Warning, fined, loss of licence	Within 1 year	Traffic deterioration, Extraction due to climate change environmental factors	Water budgets; scheduled maintenance; COM groundwater operating strategy; Flow testing of bore (we measure the static water levels) this can be compared across the City of a couple of years to see the trends.	Yes	Possible	Major	High	Prioritised action required	No	Water budgets monthly review water ex figures. Maintenance scheduled turf reduction water budget
3		Bore failure	Within 1 year	Life of asset deterioration	Flow test annually. Schedule replacement program	Yes	Almost certain	Minor	High	Prioritised action required	No	Maintenance scheduled 16 times per year. Flow testing each bore. Program maintenance, schedule contractor on demand. Replacement

													schedule
RISK IDENTIFICATION							RISK ANALYSIS RISK					RISK TREATMENT	
Risk No.	Asset at Risk	What can happen?	When can it occur?	Possible cause	Existing controls	Is risk credible?	Likelihood	Consequences	Risk rating	Action required	Is risk acceptable?	Treatment option(s)	
4		Pump failure	Within 1 year	Age of asset, water quality environment (and lighting), lack of maintenance	Flow tests, bore dose, bore clean	Yes	Almost certain	Minor	High	Prioritised action required	Yes	Development of pump replacement plan. Spare pump on hand with supplier/tender. Maintenance replacement schedule development maintenance and replacement	
5		Water quality	Anytime now	Age of assets, former tip site, contamination ground	Replacement program, testing;	Yes	Almost certain	Minor	High	Prioritised action required		Testing. Shanding the bore, decommission the bore - sink elsewhere, develop scheduled testing programs	
6		Infield component failure	Anytime now	Vandalism, age of asset, conflict works	Scheduled maintenance, pathway reports.	Yes	Almost certain	Minor	High	Prioritised action required		Contractor monitoring in reticulation areas. Process spare parts. Scheduled maintenance, reaction times	

7		Computer controller failure	Anytime now	Software or power failure	Server backup, remote access from multiple sites. (to check with nathan)	Yes	Almost certain	Minor					
---	--	-----------------------------	-------------	---------------------------	--	-----	----------------	-------	--	--	--	--	--

## Levels of Service (Playgrounds)

Key Performance Measure	Level of Service	Performance Measure Process	Performance Target	Current Performance
<b>COMMUNITY LEVELS OF SERVICE</b>				
Quality	<ul style="list-style-type: none"> <li>Provide variety of interesting mixed aged equipment of high quality, clean environment</li> </ul>	1. Customer service requests – complaints / consultation	1. 100% Completed within specified time frames	1. On target
Function	<ul style="list-style-type: none"> <li>Mixed age equipment, fully functional and accessible</li> </ul>	1. Customer service requests – complaints / consultation	1. Within set time frames	1. On target
Safety	<ul style="list-style-type: none"> <li>Safe, clean and free from hazard including provision of shade and fencing where appropriate</li> </ul>	1. Public liability claims, number of reported incidents or accidents	1. Zero Reported incidents	1. 3 reported from February to October 2009
<b>TECHNICAL LEVELS OF SERVICE</b>				
Condition	<ul style="list-style-type: none"> <li>Provision of appropriate playground to meet user requirements</li> </ul>	<ol style="list-style-type: none"> <li>Playground maintenance program</li> <li>Playground replacement program,</li> <li>Independent playground inspection program</li> <li>Reactive maintenance</li> <li>Customer service requests</li> </ol>	<ol style="list-style-type: none"> <li>Operational inspection conducted internally on 3 weekly cycles</li> <li>Replace 9 units /year – 10 year replacement program</li> <li>Annual compliance audit by contractor</li> <li>100%completion of reactive maintenance task</li> <li>100% completion of requests within specified time frames</li> </ol>	<ol style="list-style-type: none"> <li>On target</li> <li>6 units 2008/2009 – 12 units forecasted for 2009/2010 all units inspected September 2009</li> <li>On target</li> <li>On target</li> <li>100%completed</li> </ol>
Functionality / Accessibility	<ul style="list-style-type: none"> <li>Ensure that accessible playground equipment meet DAIP requirement are available within the COM</li> </ul>	1. DAIP plan	1. 2 Accessible playgrounds through out the city	1. 2 playgrounds for DAIP within the city on target
Safety	<ul style="list-style-type: none"> <li>Maintain the playground as per Australian Standards (AS 4685 parts 1-6 and AS4422)</li> <li>To ensure that the playgrounds are safe and free from hazards</li> <li>Provision of shade and fencing where required</li> </ul>	<ol style="list-style-type: none"> <li>Compliance audit and scheduled maintenance inspections</li> <li>Use take5 / JSA's / Loss Time Injury</li> <li>Public liability</li> <li>Pathways and Dataworks requests</li> </ol>	<ol style="list-style-type: none"> <li>Operational maintenance inspection 3 weekly internal Six monthly maintenance inspection</li> <li>Complete take 5 3xper day</li> <li>0 injuries</li> <li>100% completion of requests within specified time frames</li> </ol>	<ol style="list-style-type: none"> <li>5 weekly cycle Contractor inspections on target</li> <li>On target</li> <li>3 not resulted in claims</li> <li>On target</li> <li>Shade on 10% of playgrounds</li> </ol>

Risk Register (Playgrounds)

RISK IDENTIFICATION							RISK ANALYSIS					RISK TREATMENT
Risk No.	Asset at Risk	What can happen?	When can it occur?	Possible cause	Existing controls	Is risk credible?	Likelihood	Consequences	Risk rating	Action required	Is risk acceptable?	Treatment option(s)
1	Playgrounds	Structural failure	Within 1 year	Age of asset, rust, termites	Maintenance schedule. 16x scheduled visit, 2 audits/yr. reactive maintenance, Capital request program, extra consultants, wall thickness	Yes	Almost certain	Minor	High	Prioritised action required	Yes	Paint, refurbishment, replace, inspection program - expand on existing, preventative maintenance. Maintenance schedule replace program
2		Contaminated soft fall	Anytime now	Tree limb, roots, leaves, glass, honkey nut, syringes, vandalism	Sand sift program, rake pit 16x p.a. rubber soft fall	Yes	Almost certain	Minor	High	Prioritised action required	No	Increase depth of soft fall to reduce containments, install rubber soft fall needle register database. Soft fall cleaning frequently
3		Fire	Within 1 year	Environment, climate change, vandalism	Firebreaks as per FESA requirements, fire extinguishers on site, fire wardens	Yes	Almost certain	Minor	High	Prioritised action required		Aluminium bins, identify fire prone areas

Levels of Service (Structures/Outdoor Furniture)

Key Performance Measure	Level of Service	Performance Measure Process	Performance Target	Current Performance
<b>COMMUNITY LEVELS OF SERVICE</b>				
Quality	<ul style="list-style-type: none"> <li>• Clean accessible and comfortable</li> <li>• Aesthetically pleasing</li> </ul>	1. Pathway and Dataworks requests (new and existing maintenance)	1. 100% Completion of requests generated received within specific time frames	1. 100% of requests completed
Function	<ul style="list-style-type: none"> <li>• Fit for purpose</li> <li>• Fully functional</li> <li>• Located in appropriate areas and environments</li> <li>• Located near associated facilities</li> </ul>	1. Pathway and Dataworks requests (new and maintenance of existing)	1. 100% Completion of requests generated received within specified time frames	1. 100% of requests completed
Safety	<ul style="list-style-type: none"> <li>• Free from hazards</li> <li>• Safe to operate</li> <li>• Safe surrounds and habitat</li> <li>• Appropriate lighting</li> </ul>	1. Pathway and Dataworks requests (new and maintenance of existing)	1. 100% Completion of request generated within a specified time frames	1. 100% of requests completed
<b>TECHNICAL LEVELS OF SERVICE</b>				
Condition	<ul style="list-style-type: none"> <li>• Ensure that outdoor furniture is fit for use, clean and free of graffiti and vandalism</li> </ul>	<ol style="list-style-type: none"> <li>1. BBQ cleaning program and replacement schedule</li> <li>2. Park furniture replacement program</li> <li>3. Graffiti removal tender</li> <li>4. Visual inspection audit as per maintenance schedule</li> <li>5. Customer requests and complaints</li> </ol>	<ol style="list-style-type: none"> <li>1. BBQ is cleaned once per week and premier BBQs are cleaned twice per week BBQ replacement program – replace 13 per year</li> <li>2. Park furniture replacement program to the value of \$20,000 per annum</li> <li>3. Removal graffiti within 48 hours</li> <li>4. Undertake as part of visits to all reserves</li> <li>5. 100% Completion of requests generated received within specific time frames</li> </ol>	<ol style="list-style-type: none"> <li>1. On target</li> <li>2. Currently under budget only install new capital works</li> <li>3. On target</li> <li>4. On target</li> <li>5. 100% of requests completed</li> </ol>
Functionality	<ul style="list-style-type: none"> <li>• Ensure that outdoor furniture complies with DAIP</li> </ul>	<ol style="list-style-type: none"> <li>1. Visual inspection</li> <li>2. All new installations are to accommodate universal access where possible</li> </ol>	<ol style="list-style-type: none"> <li>1. To incorporate where possible</li> <li>2. We retrofit accessibility is to be considered. All premier parks and park redevelopment projects over \$1million are to incorporate universal access equipment</li> </ol>	<ol style="list-style-type: none"> <li>1. NA</li> <li>2. On target for premier parks. Not on target for retrofits.</li> </ol>
Safety	<ul style="list-style-type: none"> <li>• Provide safe outdoor furniture</li> </ul>	<ol style="list-style-type: none"> <li>1. Visual inspection in parks</li> <li>2. Number of customer requests and complaints</li> <li>3. All new structures are built to Australian Standards.</li> <li>4. All reported hazards are investigated and rectified where appropriate</li> <li>5. Use of take5/pathway-JSA's Loss Time Injury/ Public Liability/ Internal feedback</li> </ol>	<ol style="list-style-type: none"> <li>1. Audit all parks 16x per year</li> <li>2. Pathways requests addressed with in set timeframes</li> <li>3. Tender specification</li> <li>4. Complete within set time frames</li> <li>5. 100% Completion of requests generated received within specific time frames</li> </ol>	<ol style="list-style-type: none"> <li>1. On target</li> <li>2. 40 per annum addressed within set time frames</li> <li>3. On target</li> <li>4. On target</li> <li>5. 100% completed</li> </ol>

Risk Register (Structures/Outdoor Furniture)

RISK IDENTIFICATION						RISK ANALYSIS					RISK TREATMENT	
Risk No.	Asset at Risk	What can happen?	When can it occur?	Possible cause	Existing controls	Is risk credible?	Likelihood	Consequences	Risk rating	Action required	Is risk acceptable?	Treatment option(s)
1	Furniture	Structural failure	Anytime now	Age of assets, vandalism, termites, impact with vehicles	Replacement plan maintenance, schedule 16 x, scheduled inspections, response to pathway requests, Capital works program to incorporate requests. BBQ replacement tender, BBQ scheduled cleaning maintenance program.	Yes	Almost certain	Minor	High	Prioritised action required	Yes	Scheduled maintenance program conduct condition assessments paint, replace, preventative maintenance
2		Fire	Within 1 year	Environment, climate change, vandalism	Firebreaks as per FESA requirements, fire extinguishers on site, fire wardens	Yes	Almost certain	Minor	High	Prioritised action required		Aluminium bins, identify fire prone areas

