MAITLAND CITY COUNCIL

ANNUAL REPORT 2007/2008

TABLE OF CONTENTS

INTRODUCTION

This year's annual report contains details of what Council has achieved over the financial year to the 30th June 2008. These details are a broad overview of the outcome of the targets set in Council's Management Plan for 2007/2008.

The Local Government Act (1993) provides Council with the following charter:

The Council's Charter

- To provide directly or on behalf of other levels of government, after due consultation, adequate, equitable and appropriate services and facilities for the community and to ensure that those services and facilities are managed efficiently and effectively
- To exercise community leadership
- To exercise its functions with due regard for the cultural and linguistic diversity of its community
- To promote and to provide and plan for the needs of children
- To properly manage, develop, protect, restore, enhance and conserve the environment of the area for which it is responsible
- To have regard to the long term and cumulative effects of its decisions
- To bear in mind that it is the custodian and trustee of public assets and to effectively account for and manage the assets for which it is responsible
- To facilitate the involvement of Councillors, members of the public, users of facilities and services and Council staff in the development, improvement and co-ordination of local government
- To raise funds for local purposes by the fair imposition of rates, charges and fees, by income earned from investments and, when appropriate, by borrowings and grants
- To keep the local community and the State government (and through it, the wider community) informed about its activities
- To ensure that, in the exercise of its regulatory functions, it acts consistently and without bias, particularly where an activity of Council is affected
- To be a responsible employer

Council actively encourages open Government and welcomes constructive contributions in the running of Council. Input can be made through Council's planning processes, Council meetings and topical community forums.

Council meetings are held in the Council Chambers at High Street, Maitland on the 2nd and 4th Tuesday of each month. The meetings commence at 5.30pm. Members of the public are invited to attend these meetings, other than those sessions, which are confidential. Council has provided for a public access session at the beginning of each meeting where any member of the public can address Council on Agenda items.

GENERAL MANAGER'S MESSAGE

DAVID EVANS
GENERAL MANAGER

PETER BLACKMORE
MAYOR

Message from the Mayor and General Manager

The Annual Report 2007-2008 is the final annual report to be presented in the four year term of the current Council. As such, much of the report relates to works and projects which are the culmination of the initiatives and efforts of the Council over its four year term.

The Council term has been highlighted by unprecedented residential growth closely followed by similarly unprecedented growth in the area of general and bulky goods retail facilities, with a particular focus on the western sector of the City. This growth has delivered a new status to Maitland as the largest inland City within the State and one of the most rapidly growing populations within the State.

Regardless of the pressures that such growth can bring, the Council has continued to adhere to its well researched and well established policy framework for the expansion of Maitland, to ensure that City's growth has been orderly, appropriately timed to ensure an adequate supply and choice of location across the City and to ensure the availability of essential services. This policy framework also ensures that adequate supply and choice of land will be maintained into the future.

Three other major initiatives developed by the Council over its term and recently finalised are a 10 year Asset Management Strategy covering all the City's assets, a 10 year Financial Plan and Model which will allow the Council to regularly review and refine its projected financial position, and most importantly, a draft 10 year Community Strategic Plan which will be finalised in partnership between the Community and the newly elected Council, and used to guide the Council's activities in order to deliver a city with a strong sense of place, identify and social cohesion, an environmentally sustainable city, a well functioning city, and a well governed city.

We commend the annual report and its content to your reading and acknowledge the efforts and achievements of the outgoing Council.

STORMWATER MANAGEMENT SERVICES

CL217(1)(e)

Variation in Income

The reason for variation between the proposed charges and the actual income received in 2007/2008 is due to additional properties that were brought on during the year and hence stormwater management charges were raised.

Variation in Expenditure

In 2007/2008, the total amount of $579,823 program was expended and achieved more than the maintenance work as proposed in the 2007/2008 Management Plan. This is due to the completion of the Drainage Asset Management Plan that prescribes improved maintenance regimes with water sensitive designed devices such as pollution traps and detention basins.

With the additional income, and to stay within budget, capital works commenced, but remained unexpended. The remaining funds for capital works (replacement & modification of drainage structures) have been bought forward into 2008/2009 and will be expended in that financial year.

Other Information – 428 (2)(r)

Special Variations

Rate Variation Income & Expenditure
For the Year Ended 30 June 2008

Council received a 6.0% special rate variation in 2006/07 to assist in funding Council's increasing infrastructure renewal gap, as identified in its Long Term Asset Management Strategy, and to assist in funding identified and needed environmental programs. The additional rate revenue raised has been utilised as follows:

Works Proposed in Council's Management Plan	Revenue Raised 2007/08	Carried Over From 2006/07	Total Available 2007/08	Expenditure 2007/08	Balance 30/06/08	Comments
Bridge construction	335,269	279,907	615,176	594,917	20,259	Included works on the Melville Ford bridge, Wollombi Road bridge and the Victoria bridge. Works commenced on the Duckenfield bridge, to be completed in 2008/09 with the remaining funds.
Building refurbishment	373,682	118,035	491,717	374,088	117,629	Projects completed include the Lochinvar amenities building refurbishment, administration building upgrade, Thornton community hall refurbishment and the Tenambit oval building upgrade. Work commenced on the replacement of the asbestos roof at Council's Metford works depot, with the project to be completed in 2008/09 with the funds remaining.
Road & traffic safety	314,438	0	314,438	314,438	0	Works included the reconstruction of South Seas Drive, Ashtonfield and Taylor Avenue, Thornton.
Community & recreation	335,269	225,933	561,202	177,290	383,912	Projects included the replacement of playgrounds and shade cover and fencing improvement works. Work has commenced on the floodlight improvement program and the redevelopment of the Maitland City tennis complex, with both projects to be completed in 2008
Environmental programs	61,800	60,000	121,800	5,935	115,865	Numerous projects have been identified by the Greening Plan Reference Group and had commenced by 30 June 2008, including Hands Lagoon improvement, One Mile Creek clearing, the Urban Habitat project and the mosquito monitoring scheme. At this stage most works have been planning or "in kind" works. Major expenditures are to occur in 2008/09.
	1,420,458	683,875	2,104,333	1,466,668	637,665	

ANNUAL REPORT 2008-2009

A Sense of Place A Sustainable City A Well Functioning City A Well Governed City

MAITLAND CITY COUNCIL

MAITLAND CITY COUNCIL

TABLE OF CONTENTS

INTRODUCTION

This year's annual report contains details of what Council has achieved over the financial year to the 30th June 2009. These details are a broad overview of the outcome of the targets set in Council's Management Plan for 2008/2009.

The Local Government Act (1993) provides Council with the following charter:

The Council's Charter

- To provide directly or on behalf of other levels of government, after due consultation, adequate, equitable and appropriate services and facilities for the community and to ensure that those services and facilities are managed efficiently and effectively
- To exercise community leadership
- To exercise its functions with due regard for the cultural and linguistic diversity of its community
- To promote and to provide and plan for the needs of children
- To properly manage, develop, protect, restore, enhance and conserve the environment of the area for which it is responsible
- To have regard to the long term and cumulative effects of its decisions
- To bear in mind that it is the custodian and trustee of public assets and to effectively account for and manage the assets for which it is responsible
- To facilitate the involvement of Councillors, members of the public, users of facilities and services and Council staff in the development, improvement and co-ordination of local government
- To raise funds for local purposes by the fair imposition of rates, charges and fees, by income earned from investments and, when appropriate, by borrowings and grants
- To keep the local community and the State government (and through it, the wider community) informed about its activities
- To ensure that, in the exercise of its regulatory functions, it acts consistently and without bias, particularly where an activity of Council is affected
- To be a responsible employer

Council actively encourages open Government and welcomes constructive contributions in the running of Council. Input can be made through Council's planning processes, Council meetings and topical community forums.

Council meetings are held in the Council Chambers at High Street, Maitland on the 2nd and 4th Tuesday of each month. The meetings commence at 5.30pm. Members of the public are invited to attend these meetings, other than those sessions, which are confidential. Council has provided for a public access session at the beginning of each meeting where any member of the public can address Council on Agenda items.

MESSAGE FROM THE MAYOR AND GENERAL MANAGER

Welcome to the Council's Annual Report for the 2008/2009 financial year, and the first Annual Report of the Council elected in the September, 2008, general local government elections.

The Council's activities and achievements for the year extend across all areas of Council's responsibility, and are presented under our four key result areas as expressed in our draft Community Strategic Plan, through which we are working toward providing and maintaining:

- a sense of place, identity and social cohesion;
- an environmentally sustainable City;
- a well functioning City; and
- a well governed City

For the Council, like many organisations and indeed countries, the year has been one of great challenge financially with significantly reduced income from both falling interest rates and lower than expected levels of building and development activity. Through stringent financial controls however, the results for the financial year see Council maintaining a sound financial position.

The year however has also been one of many highlights, including the induction of the newly elected Council and in particular, the five new Councillors who joined council in the September 2008 elections. Work continued to near completion of the quite stunning Maitland Regional Gallery, revitalisation works were completed at Woodberry and Tenambit Shopping Centres, design work was completed by Council for the much needed Thornton Rail Bridge to facilitate construction by the State Government, and through the Federal Government economic recovery programs, Council designed and secured construction of major new recreation facilities for our younger members of the community in the form of the all access playground and bike facilities in Maitland Park, and the Rutherford Youth Space project.

Together with the new Council, we look forward to the next years of the current term of Council. They will no doubt be years of great challenge as the City continues to grow, and as the demands for improved and new facilities to support our growing population are addressed by the Council. As has been the case in the past, the new Council will continue to address these challenges in an informed, considered and balanced way, to ensure that Maitland retains its place as one of the premier locations in the State in which to live, work and invest.

PETER BLACKMORE
MAYOR

DAVID EVANS
GENERAL MANAGER

RATE VARIATION INCOME & EXPENDITURE FOR THE YEAR ENDED 30 JUNE 2009

Council received a 6.0% special rate variation in 2006/07 to assist in funding Council's increasing infrastructure renewal gap, as identified in its Long Term Asset Management Strategy, and to assist in funding identified and needed environmental programs. The additional rate revenue raised has been utilised as follows:

Works Proposed in Council's Management Plan	Revenue Raised 2008/09	Carried Over From 2007/08	Total Available 2008/09	Expenditure 2008/09	Balance 30/06/09
Bridge construction	345,998	20,259	366,257	366,257	0
Comments: Included works on Allandale Rd bridge, Wollombi road bridge and Duckenfield road bridge					
Building refurbishment	385,640	117,629	503,269	503,269	0
Comments: Projects completed include: entry upgrades to Maitland and East Maitland Aquatic facilities, roof replacement at Maitland City Library, completion of works removing asbestos roofing from Council's Metford works depot, air conditioning upgrade at Maitland Senior Citizens centre and additional works as part of the Maitland Regional Art Gallery upgrade					
Road & traffic safety	324,500	0	324,500	324,500	0
Comments: Works included Alexandra Avenue, Rutherford and Turton Street, Metford					
Community & Recreation	345,998	383,912	729,910	660,687	69,223
Comments: Projects included redevelopment of Maitland City tennis club, installation of Morpeth practice cricket nets, install of all weather cricket wicket at Norm Chapman Oval, Rutherford and various floodlight improvements. Work has commenced on Access road & carpark improvements at Beryl Humble sporting complex and court surface improvements at Maitland Netball park, with these projects to be completed in 2009/10					
Environmental programs	63,778	115,865	179,643	27,002	152,641
Comment: Numerous environmental projects have been identified by the Greening Plan Reference group, with some completed by 30 June 09 including African Olive control along Maitland roadsides and seedling distribution. Major expenditures are to occur in 2009/10 including the 'Caring for our Country' project					
	1,465,914	**637,665**	**2,103,579**	**1,881,715**	**221,864**

Annual Report
2009—2010

MAITLAND CITY COUNCIL

TABLE OF CONTENTS

INTRODUCTION

This year's annual report contains details of what Council has achieved over the financial year to the 30th June 2010. These details are a broad overview of the outcome of the targets set in Council's Management Plan for 2009/2010.

The Local Government Act (1993) provides Council with the following charter:

The Council's Charter

- To provide directly or on behalf of other levels of government, after due consultation, adequate, equitable and appropriate services and facilities for the community and to ensure that those services and facilities are managed efficiently and effectively
- To exercise community leadership
- To exercise its functions with due regard for the cultural and linguistic diversity of its community
- To promote and to provide and plan for the needs of children
- To properly manage, develop, protect, restore, enhance and conserve the environment of the area for which it is responsible
- To have regard to the long term and cumulative effects of its decisions
- To bear in mind that it is the custodian and trustee of public assets and to effectively account for and manage the assets for which it is responsible
- To facilitate the involvement of Councillors, members of the public, users of facilities and services and Council staff in the development, improvement and co-ordination of local government
- To raise funds for local purposes by the fair imposition of rates, charges and fees, by income earned from investments and, when appropriate, by borrowings and grants
- To keep the local community and the State government (and through it, the wider community) informed about its activities
- To ensure that, in the exercise of its regulatory functions, it acts consistently and without bias, particularly where an activity of Council is affected
- To be a responsible employer

Council actively encourages open Government and welcomes constructive contributions in the running of Council. Input can be made through Council's planning processes, Council meetings and topical community forums.

Council meetings are held in the Council Chambers at High Street, Maitland on the 2nd and 4th Tuesday of each month. The meetings commence at 5.30pm. Members of the public are invited to attend these meetings, other than those sessions, which are confidential. Council has provided for a public access session at the beginning of each meeting where any member of the public can address Council on Agenda items.

MESSAGE FROM THE MAYOR AND GENERAL MANAGER

We are pleased to present the Council's Annual Report for the financial year ending 30 June, 2010, and a year during which the Council made substantial progress on a number of projects of great significance to the future growth and direction of Maitland. Briefly, these projects included:

- Completion of a new draft city-wide local environmental plan (LEP) to take effect in 2011 and replace the 1993 LEP which currently applies across Maitland. The new 2011 LEP will bring many elements of Council's urban settlement strategy into place and provide more contemporary planning and development controls for the City.
- The completion and adoption of a 30 year Strategic Framework for the revitalisation of Central Maitland, to guide the Council's decision making in relation to new housing in the City Centre, the Mall and other public spaces, and the business, retail and education precincts of the City Centre.
- Completion of an integrated land use and transport study across the whole of Maitland, including specific attention to the City Centre, to guide the Council's decisions in relation to road needs and priorities for improved transport facilities and traffic management.
- Significant progress in the development of Maitland 2021, a strategic plan for the City and supported by Council's Asset Management Strategy, long term Financial Plan and a Resourcing Strategy, with the purpose of setting and confirming our direction for Maitland over the next 10 years.

We mention these projects specifically because of their significance to the City over the next 10 years and beyond. However, we do so in full acknowledgement of the many other achievements of the council, many of which are recorded in detail in this report.

There is little doubt that as we look to the future and more specifically the next 10 years, we see a very vibrant and prosperous City underpinned by strong and managed growth. There will of course be challenges that must be faced and resolved, particularly around the revenue base of the Council, and our ability to meet the needs of an expanding community with the increased pressure this places on the core assets of our City i.e. our roads, recreation facilities, community buildings and the many other facilities which are essential to the provision of quality services by the Council.

These challenges can be addressed however, and we look forward as a Council to continuing our strong partnership with the community as the city continues to grow.

Peter Blackmore
Mayor

David Evans
General Manager

RATE VARIATION INCOME & EXPENDITURE FOR THE YEAR ENDED 30 JUNE 2010

Council received a 6.0% special rate variation in 2006/07 to assist in funding Council's increasing infrastructure renewal gap, as identified in its Long Term Asset Management Strategy, and to assist in funding identified and needed environmental programs. The additional rate revenue raised has been utilised as follows:

Works Proposed in Council's Management Plan	Revenue Raised 2009/10	Carried Over From 2008/09	Total Available 2009/10	Expenditure 2009/10	Balance 30/06/10
Bridge construction	307,233	0	307,233	64,916	242,317
Comments: Works have commenced on a number of projects including: Long Bridge Maitland, Yarrabong Bridge Louth Park and Dagworth Bridge with completion of these works to be carried out in 2010/2011.					
Building refurbishment	339,539	0	339,539	339,539	0
Comments: Major works completed during 2009/2010 included the Town Hall Asbestos removal and roof replacement and Morpeth Courthouse roof, drainage and wall repairs.					
Road & traffic safety	478,639	0	478,639	478,639	0
Comments: Works included Paterson Road, Bolwarra and Molly Morgan Drive, East Maitland.					
Community & Recreation	291,225	69,223	360,448	337,854	22,594
Comments: Projects completed include: storage improvements and fixed asset renewals at various sportsgrounds, playground renewals and improvements to Maitland Tennis club. The carried forward funds are for the Recreation Trail Stage 1 at Walka Water works to be completed in 2010/2011.					
Environmental programs	100,585	152,641	253,226	190,266	62,960
Comment: Funds carried forward to meet on going investigation and environmental remediation of orphan contamination plume. Significant collaboration between Council, its consultants and Department of Environment, Climate Change and Water (DECCW) has been required to determine the extent of monitoring and subsequent remediation necessary to discharge Councils duty of care. The matter remains ongoing.					
	1,517,221	**221,864**	**1,739,085**	**1,411,214**	**327,871**

ASSET MANAGEMENT PLAN
AQUATIC CENTRES


21 JULY 2010

MAITLAND CITY COUNCIL

Document Control	

Document ID: 59_07_070909_nams.plus_amp template v1					
Rev No	Date	Revision Details	Author	Reviewer	Approver
0	29/01/2010	Reformatted into IPWEA NAMS	MM	CM	CJ
1	6/08/2010	Full Draft Reviewed & Edited	MM	CM	
1.01	28/02/2011		EJ		CM

TABLE OF CONTENTS

1. EXECUTIVE SUMMARY

What Council Provides

Council provides Aquatic Centres to enable safe and functional access to swimming and associated recreational facilities for the community. The two Aquatic Centres are located at Maitland and East Maitland. See Appendix B for aerial photographs.

The current replacement cost for the aquatic centre assets is **$14.8M**.

Table 1.0 Aquatic Centre Assets

Asset Category	Number of Assets
Swimming Pools	5
Concourses	2
Water Treatment Plant & Pipelines	3
Buildings	12
Ancillary Assets	29
TOTAL	**51**

What does it Cost?

There are two key indicators of cost to provide the Aquatic Centre service.

- 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 15 years covered by Council's long term financial plan.

Annual Forecast Maintenance
$135,407

Annualised Renewal/ Replacement Program
$156,996

Total Annual Cost

$292,403

The estimated cost to bring the aquatic centre assets up to satisfactory condition is **$1,190,000**.

The current written down value of the aquatic centre assets is **$10.3M** and their economic useful life is **94 years**.

See Chapters 5, 6, 7 and Appendix C for full details

Plans for the Future

Council plans to operate and maintain the Aquatic Centres to achieve the following strategic objectives.

1. Ensure the Aquatic Centres are maintained at a safe, secure, equitable and functional standard as set out in this asset management plan.
2. Ensure the Aquatic Centres are inspected regularly to the standards as set out in this asset management plan.
3. Ensure the Aquatic Centres meet the demand of future growth as set out in this asset management plan.

Measuring our Performance

Quality
Aquatic Centre assets will be maintained in a reasonably usable condition. 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 Aquatic Centre Assets are maintained adequately to provide the community, sporting groups and visitors with appropriate, safe, accessible and attractive facilities.

Aquatic Centre asset attributes will be maintained at a safe level and associated signage and equipment be provided as needed to ensure public safety and accessibility. We need to ensure key functional objectives are met:

- Future Demand.

Safety
We inspect the Aquatic Centres 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 asset management plan are:

- Continue Formal Routine Inspections.
- Action community and user requests regarding Aquatic Centre maintenance and improvements.
- Community Survey of satisfaction of Aquatic Centre service levels.
- Review demand growth areas.

2. INTRODUCTION

2.1 Background

This asset management plan seeks to: demonstrate responsive management of assets and associated services, comply with regulatory requirements, and communicate the level of funding necessary to provide the required levels of service.

The asset management plan is to be read with the following associated planning documents:

Maitland 2021 Community Strategic Plan 2011

Maitland Delivery Program 2011

Asset Management Policy 2011

Asset Management Strategy 2011

This asset management plan covers the infrastructure assets listed below in Table 2.1.0 together with their replacement values. Refer to Appendix C for further details.

Table 2.1.0 Assets and Replacement Values

Asset Category	Number of Assets	Replacement Value ($M)
Swimming Pools	5	5.7
Concourses	2	0.3
Water Treatment Plant & Pipelines	3	2.4
Buildings	12	5.6
Ancillary Assets	Shade Structures/Picnic Shelters/ Children's Playgrounds/Landscaping/ Lighting /Perimeter Fences - 29	**0.8**
TOTAL	**51**	**$14.8M**

Key stakeholders in the preparation and implementation of this asset management plan are listed below in Table 2.1.1:

Table 2.1.1 Key Stakeholders

Community, Recreational Groups & Visitors	User Safety, Work requests & Satisfaction
Kiosk Lessees	User Safety, Work requests & Satisfaction
Council Community & Recreation Services	Provision of Operational Staff & Management Services
Council Assets & Infrastructure Planning	Planning, Design and Infrastructure Management
Council City Works & Services	Provision of Maintenance Services

2.2 Goals and Objectives of Asset Management

The Council exists to provide services to its community. Some of these services are provided by infrastructure assets. Council has acquired infrastructure assets by construction via council staff or contractors to meet increased levels of service.

Council'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 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.
- Sustainable use of physical resources.
- Continuous improvement in asset management practices.[1]

2.3 Plan Framework

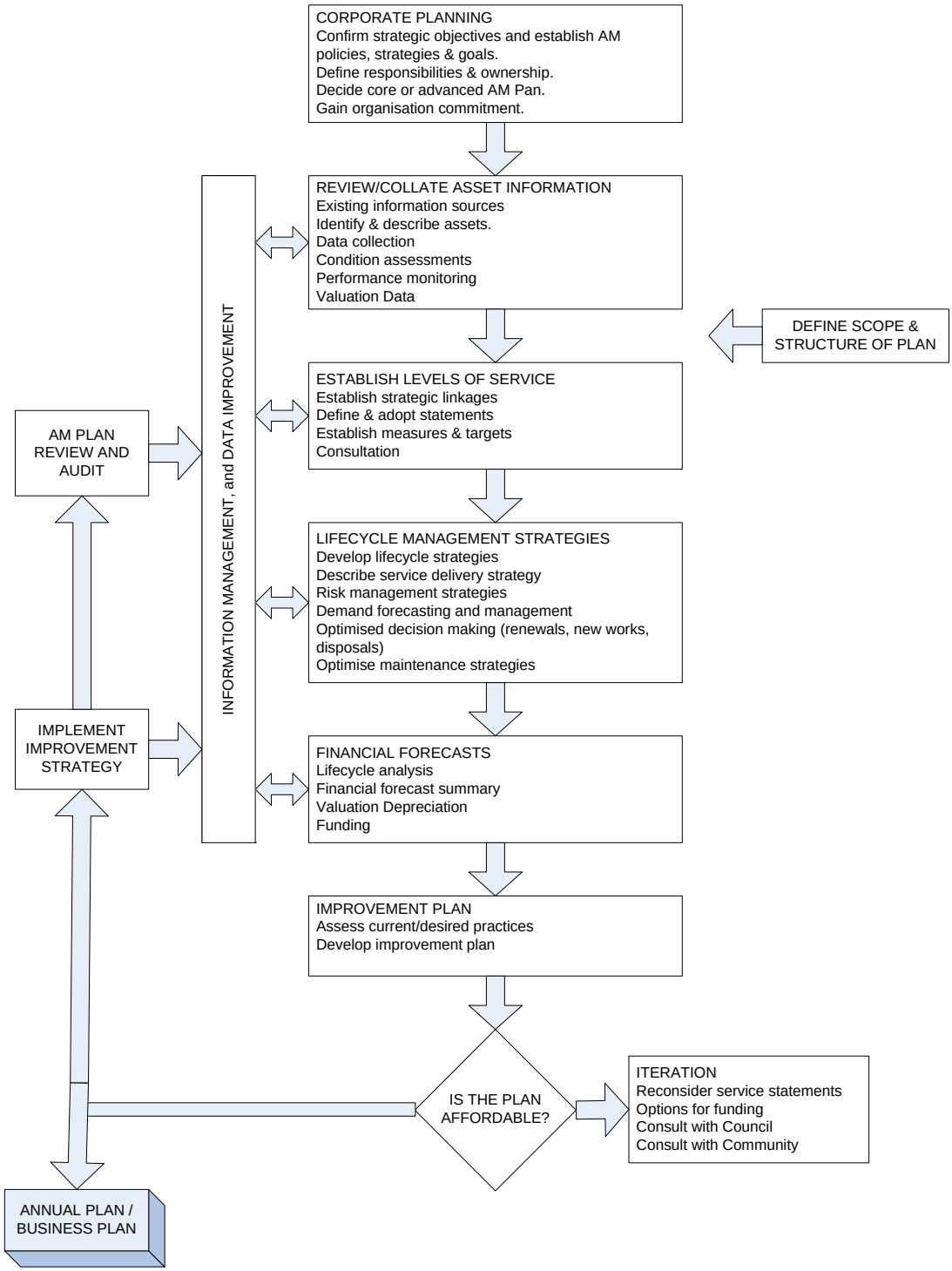
Key elements of the plan are:

- Levels of service – specifies the services and levels of service to be provided by council.
- Future demand – how this will impact on future service delivery and how this is to be met.
- Life cycle management – how Council 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 Council's objectives.
- Asset management improvement plan.

A road map for preparing this asset management plan is shown below in Fig 2.3.0.

[1] IIMM 2006 Sec 1.1.3, p 1.3

Fig 2.3.0 ***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 for the aquatic centres 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

Council has recently conducted a Community Survey (2009). This and future surveys will be investigated for future updates of the asset management plan. Comparison with the 2006 survey has customer opinion declining only slightly.

There are always some requests for service in this area. There exists a back log of works that need addressing. This may have contributed to the very small drop in customer satisfaction.

3.2 Legislative Requirements

Council has to meet legislative requirements including Australian and State legislation and State regulations. These include:

Table 3.2.0 Legislative Requirements

Legislation	Requirement
NSW Local Government Act	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
NSW Department of Local Government Water Safety Guidelines	Set out: facility operational standards & equipment, life saving practices, law enforcement powers
NSW Public Health Act & Regulations	Stipulates public health risks: prevention, mitigation & eradication plus closure of public swimming pools; also disinfection, cleanliness, inspection & testing requirements
NSW Health Department Guidelines	Set out: comprehensive water quality and water turnover rate guidelines plus health & disease risks; also disinfection, cleanliness, inspection & testing guidelines
National Occupational Health & Safety Regulations & Guidelines	Stipulates: OHS skills, training and licensing; safe usage of plant & equipment, workplace injury & disease prevention, storage and handling of dangerous goods & hazardous substances; noise management

3.3 Current Levels of Service

Council has defined service levels in two ways:

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.

Technical or Operational Measures of Performance are developed to ensure that minimum community levels of service are met. These technical or operational measures relate to and rationalise service criteria such as:

Table 3.3.0 Service Criteria

Service Criteria	Technical measures may relate to
Safety	Number of injury accidents
Availability	Mobility access and general opening times
Water Quality	Frequency & results of tests and compliance requirements

4. FUTURE DEMAND & OPTIONS

4.1 Demand Forecast

Factors affecting demand include population change, changes in demographics, seasonal factors, economic factors, customer preferences and expectations and competition from newer more contemporary facilities.

Demand factor trends and impacts on service delivery are summarised below in Table 4.1.0.

Table 4.1.0 Demand Factors and Projections

Demand Factor	2005/2006	2006/2007	11 Year Ave 1996/07	3 Year Ave 2004/07	Projection
LGA Population		61,880 (2006Census)			96,000 (2026)
Visitations – Maitland Pool	73,480	68,467	96,000	79,000	97,500
Visitations – East Maitland Pool	49,614	47,287	55,000	51,000	63,000

The long-term trend has been declining visitations for both centres, but particularly at Maitland Aquatic Centre. However, the overall visitation rate is 2.1 per head of population (based on 2006 Census data), which is at industry averages when compared to similar areas with similar populations and aquatic infrastructure.

It is assumed that the Maitland community will want aquatic facilities for the life of this plan. However, potential growth in visitation numbers will be limited by the lack of year-round heated indoor facilities. Consequently, tabled proportional projection rates are based solely upon the industry average rate stated above.

4.2 Changes in Technology

Technology changes are forecast to affect the delivery of services covered by this plan as shown in Table 4.2.0 below.

Table 4.2.0 Changes in Technology and Forecast effect on Service Delivery

Technology Change	Effect on Service Delivery
Pool Heating	New, more efficient or cheaper heating technology and techniques to replace or augment the existing solar heating systems, potentially enabling year-round centre operation
Material/Repair Methods	New materials and methods to deliver cheaper, more efficient and more effective asset repair and renewal solutions
Water Quality Management	Fully automated and more accurate chemical treatment and testing technology to facilitate better control of water quality, reduce chemical usage, improve data collection and reduce wear on plant infrastructure and subsequent maintenance costs

4.3 Demand Management

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

4.4 New Assets from Growth

It is not anticipated that new assets from growth will be acquired within the next 10 years. However, in the longer term, Council will need to consider how it will provide new and improved aquatic assets to meet community expectations.

4.5 Future Options

During the next 10 years, Council will need to consider how it will provide new and improved aquatic assets to meet community expectations. A range of options will need to be considered including:

- Retain Existing Aquatic Centres.
- Acquire Alternative Aquatic Centres.
- Acquire Additional Aquatic Centres.
- Dispose of Existing Aquatic Centres.

4.5.1 Retain Existing Aquatic Centres

This option essentially involves two possible scenarios: maintain existing assets & levels of service or improve existing assets & levels of service. The first scenario is the one that is followed in this Asset Management Plan. It involves retaining both Maitland and East Maitland Aquatic Centres in their current locations and at a reasonable level of service.

The second scenario is the one that is considered in the SGL Group Strategy & Options Paper June 2008. This strategy involves developing Maitland Aquatic Centre as the principal municipal/district aquatic facility & East Maitland Aquatic Centre as a local aquatic facility. Maitland Aquatic Centre would be progressively redeveloped as an indoor aquatic & leisure centre with comprehensive modern facilities.

4.5.2 Acquire Alternative Aquatic Centres

This option enables Council to establish new aquatic facilities in other locations that would satisfy future needs of the community. This is particularly evident with the locations of new residential areas on the fringes of established urban areas e.g. Rutherford North, Aberglasslyn, Thornton North & Gillieston Heights.

This option would also provide a strategic path to wind down and decommission one or both of the existing Aquatic Centres over a 10 to 20 year period. The overall economic burden would ultimately involve the purchase or reallocation of Council land in these new areas and similar infrastructure costs to developing new aquatic facilities on the existing sites.

4.5.3 Acquire Additional Aquatic Centres

A new site in Rutherford has already been proposed which would service residents living in the growing western part of the local government area (LGA). Similarly, a new site in the growing eastern part of the LGA could be desirable.

The overall economic burden would ultimately involve the purchase or reallocation of Council land in these new areas and similar infrastructure costs to developing new aquatic facilities on the existing sites.

4.5.4 Dispose of Existing Aquatic Centres

This option involves the concept of Council electing not to provide any aquatic facilities for the community. In effect this allows private enterprise or neighbouring councils to develop more or improved aquatic centres. To a large extent this is already happening with Port Stephens & Cessnock Councils building new leisure centres in recent years and attracting Maitland LGA residents. Plus local private aquatic centres already exist at East Maitland and Thornton.

This option would require a strategy to wind down and decommission both of the existing Aquatic Centres over say a 10 to 20 year period. The overall economic effect would be to relieve Council of the ongoing financial burden and also the need to either upgrade or relocate the existing aquatic facilities.

5. LIFECYCLE MANAGEMENT

Lifecycle management details how Council plans to control and operate the assets at the agreed levels of service whilst optimising whole of life costs. Levels of service are defined in Section 3.

5.1 Background Data

5.1.1 Physical Parameters

The assets covered by this asset management plan and their age are detailed below in Table 5.1.1.0 and shown on aerial photographs in Appendix C.

Table 5.1.1.0 Asset Descriptions and Age

Asset Location	Asset Description	Number of Assets	Age of Assets (Years)
Maitland Aquatic Centre	Swimming Pools – Olympic, Learners & Toddlers	3	25
	Concourse	1	25
	Water Treatment Plant & Pipelines	1	25 (90%), 70 (10%)
	Buildings – Plant Room & Amenities/Offices/Kiosk	2	25
	Building - Grandstand	1	13
	Building - Pavilion	1	16
	Ancillary Assets - Shade Structures (5) /Picnic Shelters (5) /Childrens Playground /Landscaping / Lighting /Perimeter Fence	14	Varies – maximum 25
East Maitland Aquatic Centre	Swimming Pools – Olympic & Toddlers	2	33
	Concourse	1	33
	Water Treatment Plant & Pipelines	2	33
	Buildings – Plant Rooms & Amenities/Offices/Kiosk	3	33
	Building - Grandstand	1	25
	Building – Pavilions	2	25
	Buildings – Storage Sheds	2	25
	Ancillary Assets - Shade Structures (3) /Picnic Shelters (8) /Childrens Playground /Landscaping / Lighting /Perimeter Fence	15	Varies – maximum 33
	TOTAL	**51**	

Maitland Aquatic Centre

The existing swimming pools, ancillary assets and most of the buildings and plant infrastructure were constructed in 1985. These structures replaced the original infrastructure which was constructed when the Centre first opened in 1940. The pavilion was constructed in 1994 and the grandstand in 1997. Solar heating was installed in 2004. The liquid chlorination and tank storage system was replaced with a dry chlorination system in 2007. Amenities and Offices were substantially improved and upgraded in 2007. The only original infrastructure still in use at the Centre is: two of the four sand filter cells and adjoining dewater pit & holding tank

The existing toddlers pool is currently being replaced with a modern water playground, which is due for completion in December 2010. The toddlers and learners pools are covered by shade structures, as will the new water playground.

East Maitland Aquatic Centre

The Centre was constructed and opened in 1977. The grandstand, pavilions and steel storage shed were constructed in the 1980's. A new accessible amenities and storage area was added to the existing amenities/offices/kiosk building in 2008. Solar heating was installed in 2004. The liquid chlorination and tank storage systems were replaced with dry chlorination systems in 2007. The existing toddlers pool plant room was upgraded in 2010.

5.1.2 Asset Capacity and Performance

Council's services are generally provided to meet design standards where these are available. Whilst Table 5.1.2 below lists aquatic infrastructure with known service deficiencies, these assets are managed appropriately such that they are safe for all pool users.

Table 5.1.2.0 Known Service Performance Deficiencies

Asset Description	Service Deficiency
All Swimming Pools	Outdoor facilities limit opening season to only seven warmer months each year, reduce usage in adverse weather conditions and increase artificial heating cost options
Maitland Olympic Pool	Wall cracks compromise overall structural integrity, water loss through leaking joints, deck pebblecrete cracking and spalling, wet deck gutter and return channel dimensions restrict ability to increase water turnover rates
Maitland Learners Pool	Deck pebblecrete cracking and spalling, fibreglaze lining nearing end of service life
Maitland Toddlers Pool	Subsidence compromises overall structural integrity and water quality, raised centre water feature and deck perimeter compromise child safety
East Maitland Olympic Pool	Deep end floor slab cracks compromise structural integrity, water loss through leaking joints, under-sized raised deck gutter and return channel dimensions restrict ability to increase water turnover rates, lacks accessible facility for mobility impaired users
East Maitland Toddlers Pool	Surface tiling nearing end of service life, raised deck perimeter compromises child safety
All Water Treatment Plant & Pipelines	Nearing end of service life, insufficient hydraulic capacities restrict ability to increase water turnover rates to recommended levels
All Concourses	Nearing end of service life, structural cracking and joint movement potentially compromise user safety
Amenities & Kiosks	Dated facilities restrict and detract from usage
Grandstands	Lack accessible areas for mobility impaired users
Shade Structures	Replace deteriorated sails to provide required shade for users

The above service deficiencies were identified from the experience of Council operational, maintenance and management staff, various technical & consultant condition assessment reports and community feedback.

5.1.3 Asset Condition

Condition is measured using a 1 – 5 rating system.[2]

Rating	Description of Condition
5	Only planned maintenance required.
4	Minor maintenance required plus planned maintenance.
3	Significant maintenance required.
2	Significant renewal/upgrade required.
1	Unserviceable.

[2] IIMM 2006, Appendix B, p B:1-3 ('cyclic' modified to 'planned')

Overall, the asset condition of the aquatic facilities in Maitland is 3, being of average condition with significant maintenance required. This being the average means that there are some areas of the aquatic facilities with conditions rating from 1 through to 5. Overall, 80% of the aquatic facilities have a rating of 3 to 5, and 20% of the network has a rating of 1 to 2. The target standard for the aquatic facilities is to keep them at this standard.

Table 5.1.3.0 Condition of Asset

ASSET	CURRENT WRITTEN DOWN VALUE	CURRENT REPLACEMENT VALUE
Aquatic Centres	$10,300,000	$14,802,000

Estimate of works required to bring Aquatic assets up to satisfactory standard (based on Aquatic upgrade and replacement survey)	$1,190,000
Estimate of annual expense of maintaining aquatic assets to that standard (consisting of maintenance and renewal works)	$292,403

To bring the aquatic centre assets up to satisfactory condition would be to replace, repair or upgrade those assets rated two or below. An estimated cost to bring these aquatic centre assets up to satisfactory condition is $1,190,000 and is set out below in Table 5.1.3.1.

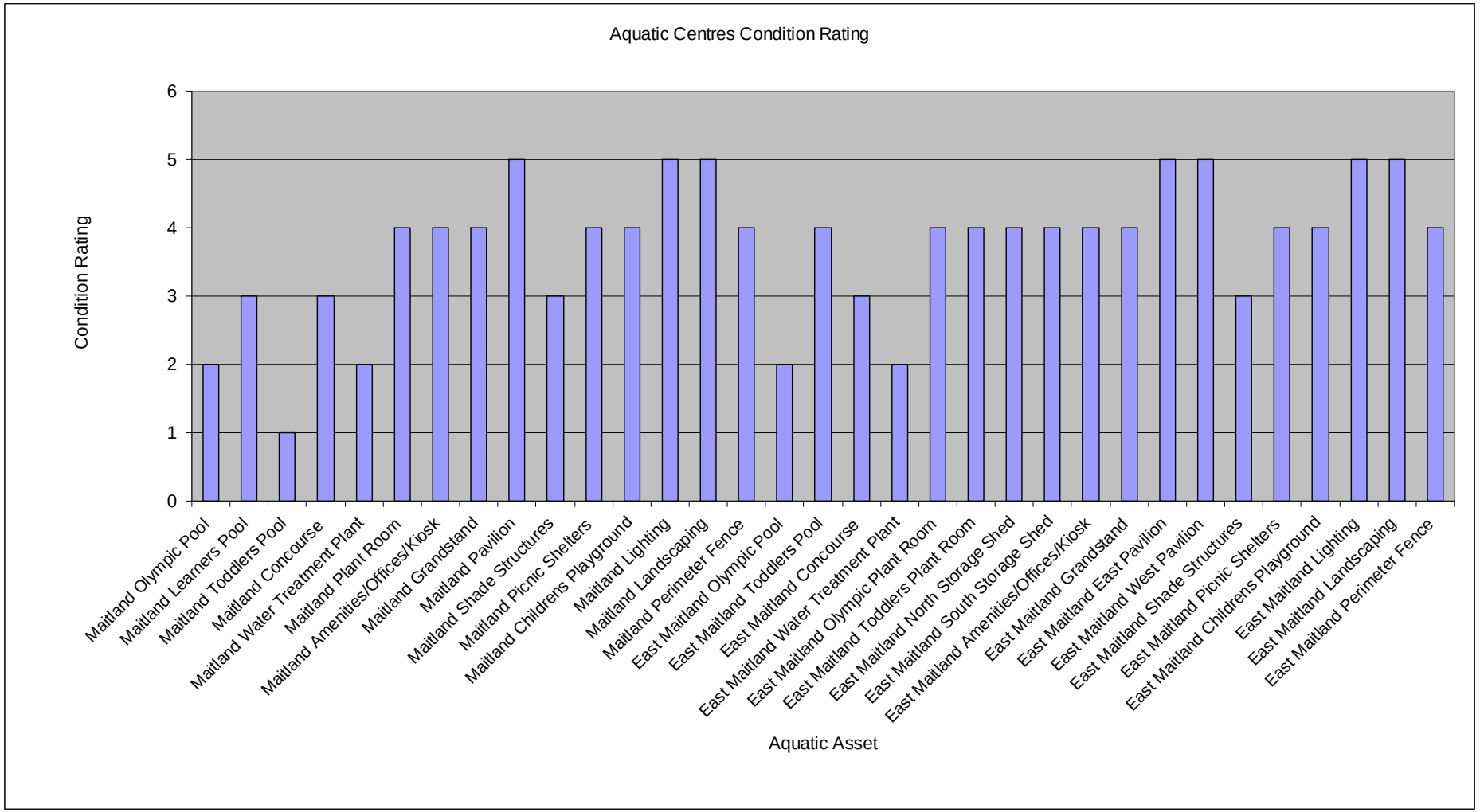
These deficiencies also appear as projects within Council's Capital Works Program and Appendix C.

Table 5.1.3.1 Cost to Bring Deficient Assets to Satisfactory Condition

Location	Service Deficiency	Cost to Bring to Satisfactory Condition
Maitland Aquatic Centre	New Water Playground to Replace Existing Toddlers Pool (480K), Olympic Pool Major Structural Repairs (300K), Learners Pool Reline Shell & Tile Deck (60K), Concourse Repairs (30K), Shade Sail Replacement & Kiosk Upgrade (30K), Grandstand Accessibility Upgrade (10K), Amenities & Other Infrastructure Upgrades (30K)	$940,000
East Maitland Aquatic Centre	Olympic Pool Structural Floor Repairs & Accessible Ramp Upgrade (150K), Concourse Repairs (30K), Shade Sail Replacement & Kiosk Upgrade (30K), Grandstand Accessibility Upgrade (10K), Amenities & Other Infrastructure Upgrades (30K)	$250,000

The condition profile of Council's assets is shown overleaf in Figure 5.1.3.0.

Fig 5.1.3.0 Asset Condition Profile



5.1.4 Asset Valuations

The value of assets at June 2010 covered by this asset management plan is summarised below. Assets are valued using unit rates from either similar past works undertaken by Council or from estimates quoted in the consultant condition assessment reports. Future replacement of these assets will involve demolition of existing aquatic infrastructure.

Current Replacement Cost (cost of replacing current aquatic assets)	$14.8M
Depreciable Amount	$4.5M
Depreciated Replacement Cost (Current Written Down Value)	$10.3M
Annual Depreciation Expense	$156,996
Amount to bring up to satisfactory condition	$1.19M

Cause and Effect Method of Assumption

The premise is – if the aquatic structures stock is well maintained and the elements are renewed in a timely manner then the whole aquatic centre should conceivably last 200 years. There are many examples of buildings and structures in excess of 100 years in our local area and have been well maintained and are still safely used by the community. However, aquatic plant and pipeline stock will have a much shorter lifespan because of continuous operation in aggressive chemical environments which cause excessive wear and sometimes catastrophic failures.

The calculation of useful life can be achieved by summing the element renewal costs and the ultimate replacement cost which will account for the true consumption of the asset.

This is a sound financial representation of asset deterioration. The renewal program - located in Appendix D - sets out the probable element renewal and likely replacement for the next 75 years.

Annual Economic Cost (Depreciation) = Annualised Element Renewal + Annualised Replacement

= $ 156,996

This translates to an Economic Life (or useful life for accounting purposes)

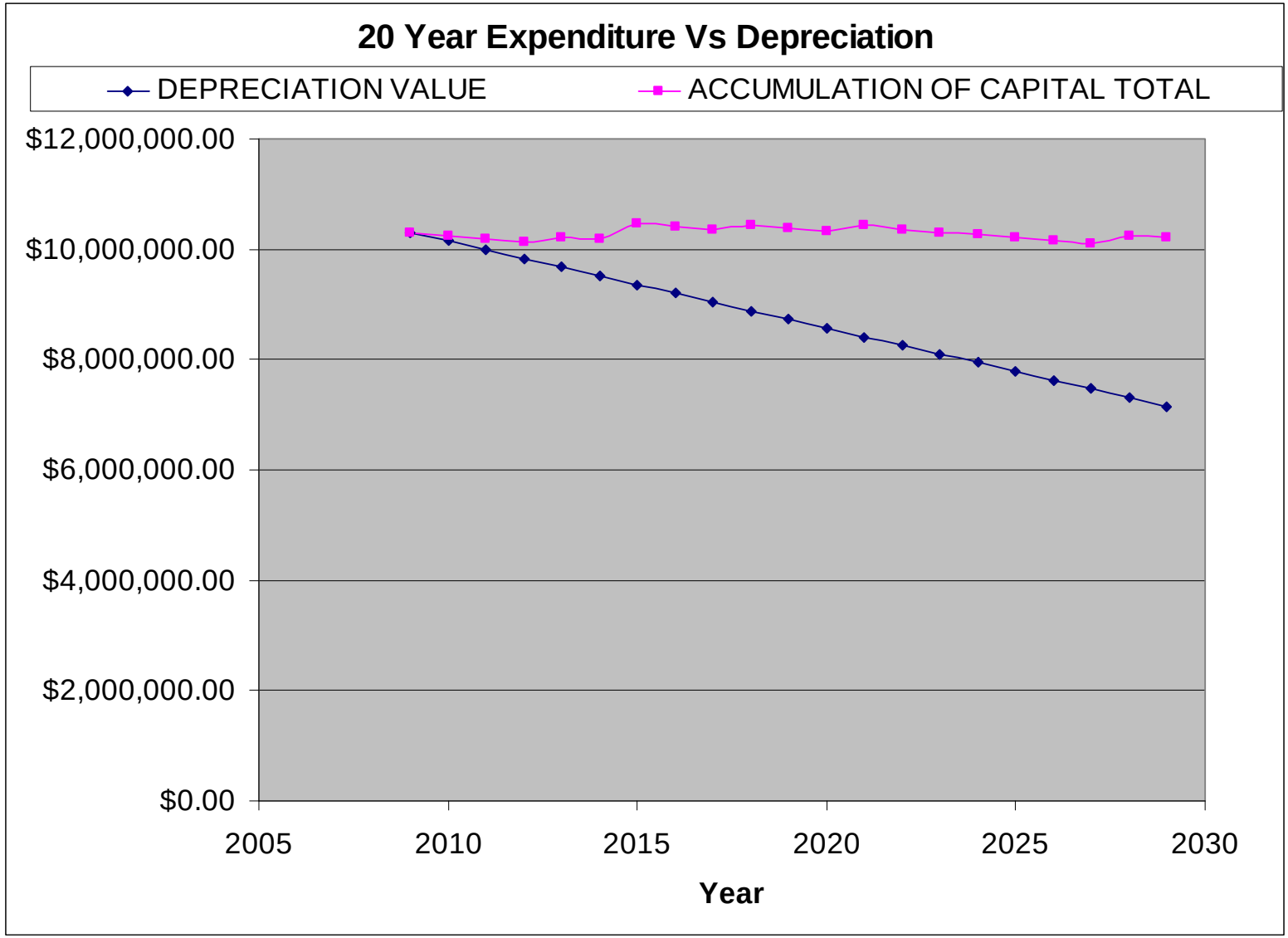
= $14.8M / $156,996

= 94 years

This information provides a well considered format for use in Depreciating accounting and the ten (10) year financial plan.

Fig 5.1.4.0 below shows the depreciation of the asset stock versus the forecasted expenditure expected on the stock over a 20 year period based upon a useful life of 94 years.

Fig 5.1.4.0 Expenditure & Depreciation



As indicated from the graph above, the current expenditure from an annualised point of view is higher than the forecast depreciation

5.2 Risk Management

The assessment of risks associated with service delivery from aquatic infrastructure assets is managed by Council's Assets & Infrastructure Planning Department. Operational risks particularly those associated with public safety are managed directly by Council pool staff. The risk assessment process identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, develops a risk rating, evaluates the risk and develops a risk treatment plan for non-acceptable risks.

5.3 Routine Maintenance

Routine maintenance is the regular 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.

5.3.1 Maintenance

Maintenance includes reactive, planned and cyclic maintenance work activities.

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 the Annual Plant Maintenance Program (PMP) and Bi-annual Building Maintenance Inspection Program (BMIP). PMP inspections are undertaken by Civil Works & Services (CW&S) in consultation with Assets & Infrastructure Planning (A&IP) and recorded on checklists for all plant assets. BMIP inspections are undertaken by A&IP and spreadsheets with photographic records are produced for all other assets. PMP and BMIP inspections are undertaken by Council officers with experience in plant or building maintenance respectively and involve giving each asset element a condition rating and priority rating.

If further assessment or specialised testing is required then A&IP will engage, or authorise CW&S to engage, a consultant to undertake this additional work.

Cyclic maintenance is replacement of higher value components of assets that is undertaken on a regular cycle including repainting and equipment replacement. This work generally falls below the capital waors threshold.

Maintenance expenditure trends are shown below in Table 5.3.1.0.

Table 5.3.1.0 Maintenance Expenditure Trends

Year	Maintenance Expenditure	
	Reactive	Planned
2007/08	$31,264	$140,846
2008/09	$41,712	$85,295
2009/10	$33,990	$101,417

Planned maintenance work is on average 75% of total maintenance expenditure.

Maintenance expenditure levels have been recently higher than planned forecast expenses due a decision by Council to improve the standard of aquatic stock and redress previous periods of under expenditure. Future revision of this asset management plan will include linking required maintenance expenditures with required service levels.

5.3.2 Standards and Specifications

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

- Building Code of Australia
- Australian Standards
- Manufacturer's requirements for proprietary products

5.3.3 Summary of Future Maintenance Expenditures

Future maintenance expenditure is forecast and detailed below in Table 5.3.3.0. Note that all costs are shown in current 2009/10 dollar values.

Table 5.3.3.0 Planned Maintenance Expenditure

Maintenance Activity	Frequency (years)	Annual Cost $ 2009/10
Building Maintenance Inspection Program	2	$1,000
Annual Plant Maintenance Inspection	1	$1,500
Fire Protection Equipment Inspection	6 months	$200
Security Services	Continual	$3,500
General Maintenance	1	$95,000
TOTAL		**$101,200**

This reflects a total planned maintenance budget of $101,200 per annum for both Aquatic Centres and an estimated reactionary maintenance budget of $34,000.

Deferred maintenance, ie 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 Council's operating budget and grants where available. This is further discussed in Section 6.2.

5.4 Element 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

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 and scheduled in future works programmes. The priority ranking criteria is detailed below in

Table 5.4.1.0.

Table 5.4.1.0 Renewal Priority Ranking Criteria

Criteria	Weighting
Fit for purpose - traffic volumes	25%
Safety	50%
Maintenance requirements	25 %
Total	**100%**

5.4.2 Renewal Standards

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

- Building Code of Australia
- Australian Standards
- Project-specific Technical Specifications

5.4.3 Summary of Future Renewal Expenditure

Projected future renewal expenditures are forecast for each renewal activity are shown in Table 5.4.3.0 below. Note that all costs are shown in current 2009/10 dollar values.

Fig 5.4.3.0 Projected Capital Renewal Expenditure

Renewal Activity	Frequency (years)
Substructure	50
Superstructure	50
Fittings - Fitout	20
Services	30

This will require a total renewal/replacement budget of **$156,996 per annum.**

The 75 year Aquatic Centre Renewal Plan is included in Appendix D

Deferred renewal, ie 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 Council's capital works program and grants where available. This is further discussed in Section 6.2.

5.5 Creation/Acquisition/Upgrade/Replacement 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 Council from land development. These assets from growth are considered in Section 4.4.

Projected future replacement expenditures forecast for each replacement activity are shown in Table 5.5.0 below.

Fig 5.5.0 Projected Capital Replacement Expenditure

Asset Description	Refurbishment Cycle (Years)	Unit Rate
Swimming Pool Structure	40	$300,000
Concourse	15	$30,000
Water Treatment Plant & Pipelines	30	$100,000
Ancillary Assets	5	$7,000

5.5.1 Selection Criteria

New assets and upgrade/expansion of existing assets are identified from various sources such as councillor 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 and scheduled in future works programmes. The priority ranking criteria is detailed in Table 5.5.1.0 below.

Table 5.5.1.0 New Assets Priority Ranking Criteria

Criteria	Weighting
Development Requirements/Contributions	50%
Age	25%
Condition	25%

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 shown in Section 5.4.2.

5.5.3 Summary of Future Upgrade/New Asset Expenditure

Planned upgrade/new asset expenditures are summarised in Fig 5.5.3.0. The planned upgrade/new capital works program is shown in Appendix D. All costs are shown in current 2009/10 dollar values and only detail the cost replacement of the current configuration of bridge.

Fig 5.5.3.0 Planned Capital Upgrade/New Asset Expenditure

Project	Description	Allocation
Building Capital Works		
2010 - 2011		
Maitland Pool	Infrastructure Upgrades - Kiosk Refurbishment	$20,000
East Maitland Pool	Infrastructure Upgrades - Kiosk Refurbishment	$20,000
2011 - 2012		
East Maitland Pool	Olympic Pool Repairs - Deep End Floor Slab & Lateral Joints	$100,000
2012 - 2013		
Maitland Pool	Replace Shade Sails & Various Infrastructure Upgrades	$50,000
East Maitland Pool	Replace Shade Sails & Various Infrastructure Upgrades	$70,000
	THREE YEAR TOTAL	**$260,000**

New assets and services are to be funded from Council'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.

It is not anticipated that any aquatic assets will be disposed of within the next 10 years. However, longer term options are discussed in Section 4.5.

Where cash flow projections from asset disposals are not available, these will be developed in future revisions of this asset management plan.

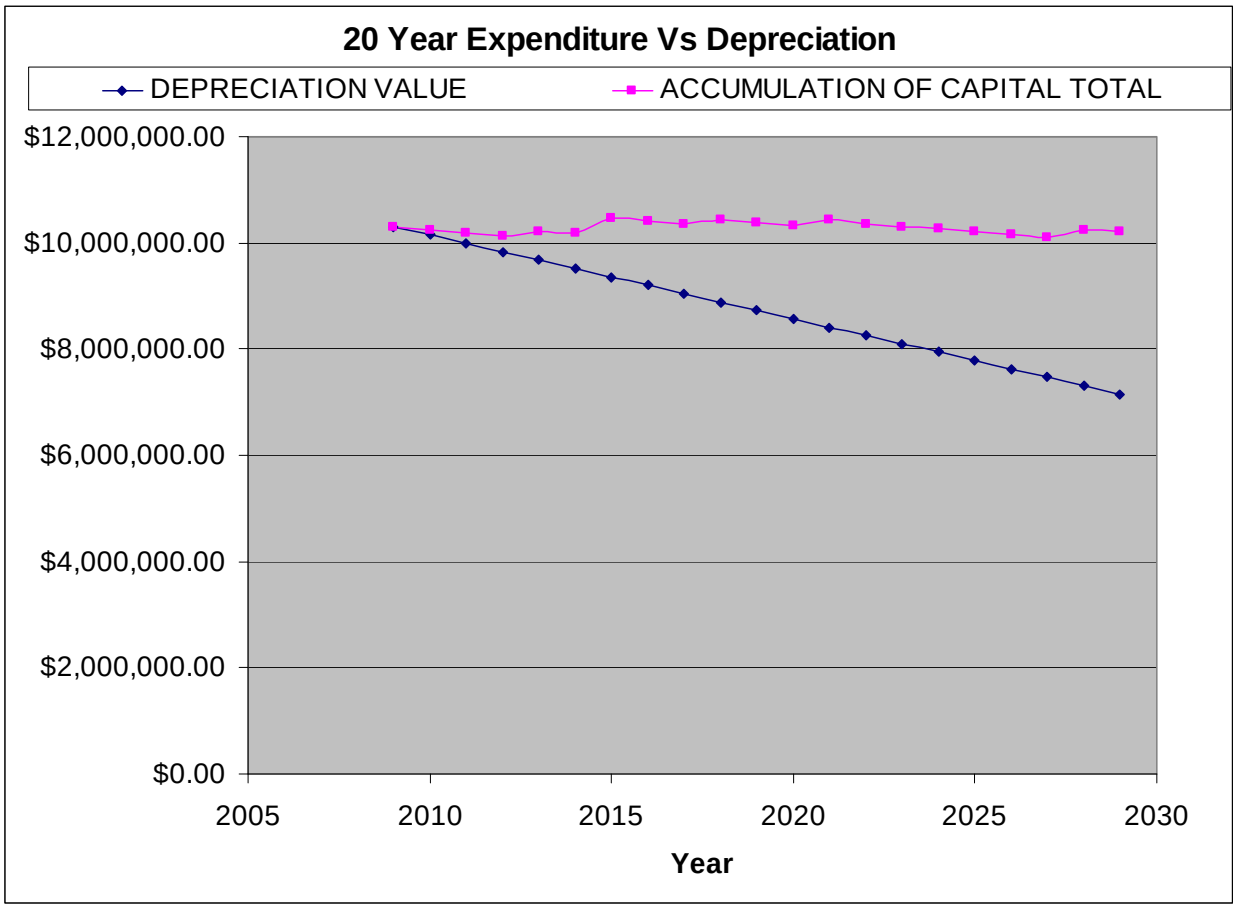
6. FINANCIAL SUMMARY

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 Fig 6.1.0 for planned operating (operations and maintenance) and capital expenditure (renewal and upgrade/expansion/new assets).

Fig 6.1.0 Planned Operating and Capital Expenditure



Note that all costs are shown in current 2009/10 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 15 year financial planning period.

Medium term – 15 year financial planning period

This asset management plan identifies the estimated maintenance and capital expenditures required to provide an agreed level of service to the community over a 15 year period for input into a 15 year financial plan and funding plan to provide the service in a sustainable manner. See Table 6.1.1.0 for a detailed financial outlook (without annual CPI).

Table 6.1.1.0 Projected Budget 15years without CPI

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Capital/Renewal	$99,550	$99,550	$99,550	$249,550	$136,550	$436,550	$99,550	$99,550	$224,925	$106,550	$106,550	$252,897	$99,550	$99,550	$106,550
Maintenance	$135,407	$135,407	$135,407	$135,407	$135,407	$135,407	$135,407	$135,407	$135,407	$135,407	$135,407	$135,407	$135,407	$135,407	$135,407
TOTAL	$234,957	$234,957	$234,957	$384,957	$271,957	$571,957	$234,957	$234,957	$360,332	$241,957	$241,957	$388,304	$234,957	$234,957	$241,957

6.2 Key Assumptions 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.

7. PLAN IMPROVEMENT AND MONITORING

7.1 Performance Measures

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

- The degree to which the required cashflows identified in this asset management plan are incorporated into council'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;

7.2 Improvement Plan

The asset management improvement plan generated from this asset management plan is shown in Table 7.2.

Table 7.2 Improvement Plan

Task No	Task	Responsibility	Resources Required	Timeline
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

7.3 Monitoring and Review Procedures

This asset management plan will be reviewed during annual budget preparation 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.

The Plan has a life of 4 years and is due for revision and updating within 2 years of each Council election.

REFERENCES

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

APPENDICES

Appendix A Abbreviations and Glossary of Terms

Appendix B Aerial Photographs

Appendix C Projected 75 year Capital Renewal Works

Appendix D Asset Descriptions and Replacement Values

Appendix E SGL Group Strategy and Option Paper June 2008

Appendix A Abbreviations and Glossary of Terms

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 discretional expenditure, which increases future operating, and maintenance costs, because it increases council'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 discretional 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 council'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.

GPT
A GPT is a Gross Pollutant Trap. These devices collect gross pollutants such as bottles, cigarette butts, and other rubbish washed into the drainage system preventing it from ending up in waterways.

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 Expenditure 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 is 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 Council, 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 Council 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 Council'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 council. 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.

Water Sensitive Urban Design (WSUD)
A new comprehensive approach to management of stormwater. WSUD aims to build on traditional objective of local flood protection by having multiple outcomes:

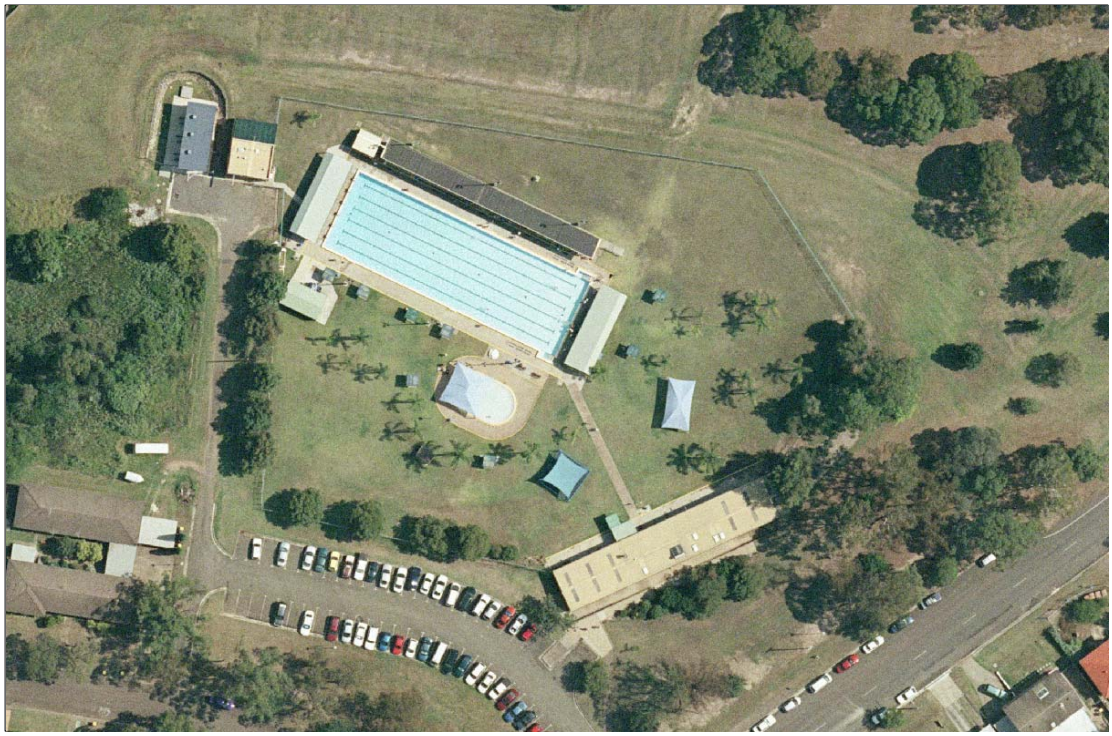
- Improved water quality management
- Protecting ecosystems
- Providing liveable and attractive communities.

Source: DVC 2006, Glossary
Note: Items shown * modified to use DA instead of CRC
Additional glossary items shown **

Appendix B Aquatic Centres – Aerial Photographs

Maitland Aquatic Centre

East Maitland Aquatic Centre



Appendix C Projected 75 year Capital Renewal Works

Appendix D Asset Descriptions and Replacement Values

Asset category	Number of Assets	Quantity/Basis	Rate Estimate	Replacement Value
Maitland Olympic Pool	1	50m x 21m	Becca 2008 + 10%	$2,750,000
Maitland Learners Pool	1	17m x 7.5m	Becca 2008 + 10%	$550,000
Maitland Toddlers Pool	1	8m diameter	Becca 2008 + 10%	$110,000
East Maitland Olympic Pool	1	50m x 16m	80% Maitland Olympic Pool	$2,200,000
East Maitland Toddlers Pool	1	11m x 7m Oval	Maitland Toddlers	$110,000
Concourses	2	1,750 + 1,100 sqm	$100	$285,000
Maitland Water Treatment Plant	1	Item	Becca 2008 + 10%	$1,100,000
East Maitland Water Treatment Plant	2	Item	Becca 2008 + 10%	$1,320,000
Maitland Plant Room	1	2008 MCC Finance	$402,000 + 10%	$440,000
East Maitland Plant Rooms	2	2008 MCC Finance	($175,000 + $50,000) +	$250,000
East Maitland Storerooms	2	Recent MCC Equivalent	$50,000 each	$100,000
Amenities/Offices/Kiosk Buildings	2	2008 MCC Finance	($1,485,000 + $825,000) +	$2,540,000
Grandstands	2	1998 MCC Finance	$412,000 each + 80%	$1,500,000
Pavilions	3	1994 MCC Finance	$250,000	$750,000
Shade Structures	8	450 + 150 sqm	$150	$90,000
Picnic Shelters	13	Recent MCC Equivalent	$5,000	$65,000
Childrens Playgrounds	2	Recent MCC Equivalent	$50,000	$100,000
Lighting	2	1994 MCC Finance	$150,000	$300,000
Landscaping	2	1994 MCC Finance	$100,000	$200,000
Perimeter Fences	2	220m + 300m	$80	$42,000
TOTAL	**51**			**$14,802,000**

Appendix E SGL Group Strategy and Options Paper June 2008

Document Control	

Document ID: 59_07_070909_nams.plus_amp template v11

Rev No	Date	Revision Details	Author	Reviewer	Approver
3	29/01/2010	Reformatted into IPWEA NAMS	MV	EJ	CMc
3.01	31/05/2010	Content Revised	EJ	CMc	CJ
3.02	28/02/2011		EJ		

TABLE OF CONTENTS

1. EXECUTIVE SUMMARY

What Council Provides

Council provides a Bridge and Major Culvert network on the local road network to enable safe and comfortable use for the community.

Asset category	Number of Assets
Timber Bridges	3
Steel Bridge	1
Reinforced Concrete Bridges	14
Major Culvert – Box Culverts	17
Major Culvert – Pipe Culverts	9
TOTAL	**44**

What does it Cost?

There are two key indicators of cost to provide the Bridge and Major Culvert service.

- 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 15 years covered by Council's long term financial plan.

Annual Forecast Maintenance $ 85 000

Annualised Renewal Program $185 000

Annualised Replacement Program $129 000

Total Annual Cost $399 000

Depreciation (over 82year life) $314 600

See Chapters 5, 6, 7 and Appendix B for full details

Plans for the Future

Council plans to operate and maintain the Bridge and Major Culvert network to achieve the following strategic objectives.

1. Ensure the Bridge and Major Culvert network is maintained at a safe and functional standard.
2. Ensure the Bridge and Major Culvert network is load tested an up to date with the current road loading standards as set out in this asset management plan.
3. Ensure the Bridge and Major Culvert network meets the demand of future growth as set out in this asset management plan.

Measuring our Performance

Quality

Bridge and Major culvert assets will be maintained in a reasonably usable condition. 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 an appropriate Bridge and Major Culvert network is maintained in partnership with other levels of government and stakeholders, to provide an adequate and safe road network.

Bridge and Major Culvert asset attributes will be maintained at a safe level and associated signage and equipment be provided as needed to ensure public safety. We need to ensure key functional objectives are met:

- Future Demand
- Future Road Loading Standards

Safety

We inspect all Bridge and Major Culverts 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 asset management plan are:

- Continue Formal Routine Inspections
- Test bridges with possible critical loads
- Community Survey of satisfaction of bridge service levels
- Review demand growth areas

2. INTRODUCTION

2.1 Background

This asset management plan is to demonstrate responsive management of assets (and services provided from assets), compliance with regulatory requirements, and to communicate funding required to provide the required levels of service.

The asset management plan is to be read with the following associated planning documents:

- Bridge Major Culvert Risk Management Plan 2009
- Maitland 2021 Community Strategic Plan 2011
- Delivery Program 2011
- Asset Management Strategy 2011
- Asset Management Policy 2011

This asset management plan covers the infrastructure assets listed in Table 2.1 below:

Table 2.1. Assets covered by this Plan

Asset category	Number of Assets	Replacement Value ($M)
Timber Bridges	3	$1.87M
Steel Bridge	1	$1.05M
Reinforced Concrete Bridges	14	$16.48M
Major Culvert – Box Culverts	17	$9.19M
Major Culvert – Pipe Culverts	9	$3.23M
TOTAL	**44**	**$31.83M**

Bridges that are identified in this management plan consist of abutments, superstructure, substructure and travel surface. The Major Culverts that are identified in this management plan are a number of pipe or box culverts laid adjacent so that the headwall spans greater than 6m. This is the classification that is used for culverts by the RTA.

Key stakeholders in the preparation and implementation of this asset management plan are:

Community	User Safety, Work requests & Satisfaction
Assets & Infrastructure Planning	Planning / Design and Control
City Works & Services	Provision of Services
Developers	Compliance and Contribution

2.2 Goals and Objectives of Asset Management

The Council exists to provide services to its community. Some of these services are provided by infrastructure assets. Council has acquired infrastructure assets by 'purchase', by contract, construction by council staff and by donation of assets constructed by developers and others to meet increased levels of service.

Council'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 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,
- Sustainable use of physical resources,
- Continuous improvement in asset management practices.[1]

2.3 Plan Framework

Key elements of the plan are

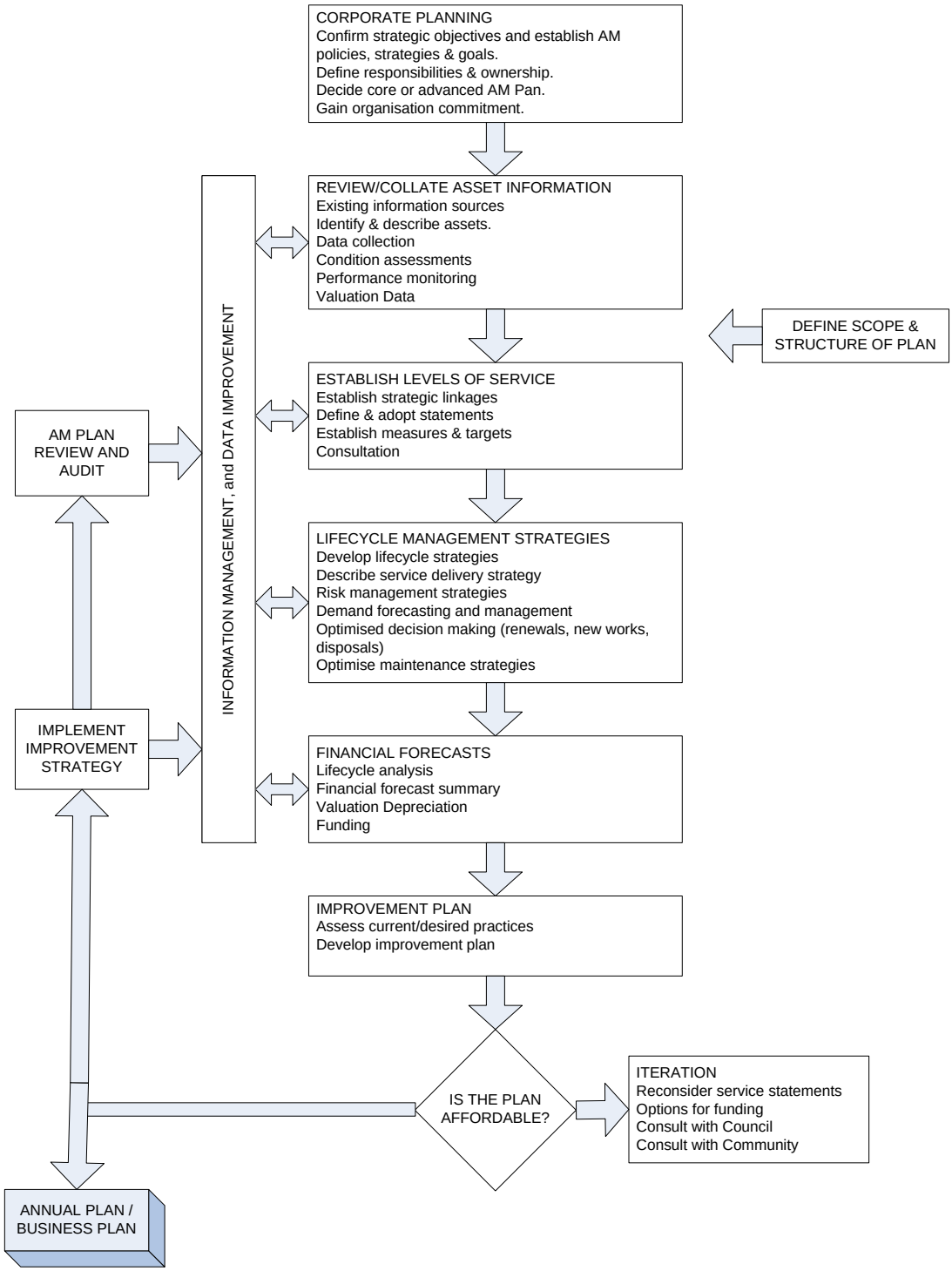
- Levels of service – specifies the services and levels of service to be provided by council.
- Future demand – how this will impact on future service delivery and how this is to be met.
- Life cycle management – how Council will manage its existing and future assets to provide the required services
- 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 Council's objectives.
- Asset management improvement plan

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

[1] IIMM 2006 Sec 1.1.3, p 1.3

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 an 'advanced' asset management plan for the bridge assets and as a 'core' asset management for the major culvert assets, 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

Council has not carried out any research on customer expectations. This will be investigated for future updates of the asset management plan

3.2 Legislative Requirements

Council has to meet many legislative requirements including Australian and State legislation and State regulations. These include:

Table 3.2. Legislative Requirements

Legislation	Requirement
Local Government Act	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.
Roads Act	Identifies responsibilities of all interested parties.
Protection of the Environment Operations Act 1997 No 156	Ensure the protection of the environment through Design and Construction practices.
Fisheries Management Act	Allow the passage of fish in waterways.

3.3 Current Levels of Service

Council has defined service levels in two terms.

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.

In addition to the community comments which help provide road network objectives there are other measured of road network health which are used to determine the actual level of service.

Rationalising the community service levels are operational or technical measures of performance developed to ensure that the minimum community levels of service are met. These technical measures relate to service criteria such as:

Table 3.3(a). Service Criteria

Service Criteria	Technical measures may relate to
Quality	Smoothness of surface or ride
Availability	Road Closure due to Bridge servicing or repair
Safety	Number of injury accidents

4. FUTURE DEMAND

4.1 Demand Forecast

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

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

Table 4.1. Demand Factors and Projections

Demand factor	Present position	Projection
Population	2001 Census - 53,803	2026 – 96,000
Demographics		
Commercial	71.76%	
Industrial	26.47%	
Rural	1.77%	

The split of Industrial / Commercial and Rural along with the future increases to load limits of roads will increase the risk of larger load limits of local road networks.

4.2 Changes in Technology

Technology changes are forecast to affect the delivery of services covered by this plan in the following areas.

Table 4.2. Changes in Technology and Forecast effect on Service Delivery

Technology Change	Effect on Service Delivery
Larger Loading Limits on Roads	Will need to evaluate the capacity of all bridges given the new load limit
More Accurate testing available	As testing methods improve Council has to opportunity to gather more accurate information relating to the condition of each bridge

The maximum load limit of the roads has changed significantly over time. See Table 4.2.1 for the increased mass limits over time.

Table 4.2.1. Changes in Gross Vehicle Mass (Pearson 1994)

Year	Gross Mass (tonnes)
1970 – 76	33 – 35
1976 – 86	36 – 38
1986 – Present	42.5
Future	45.5

4.3 Demand Management

Demand for new services will be managed through a combination of 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.

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.

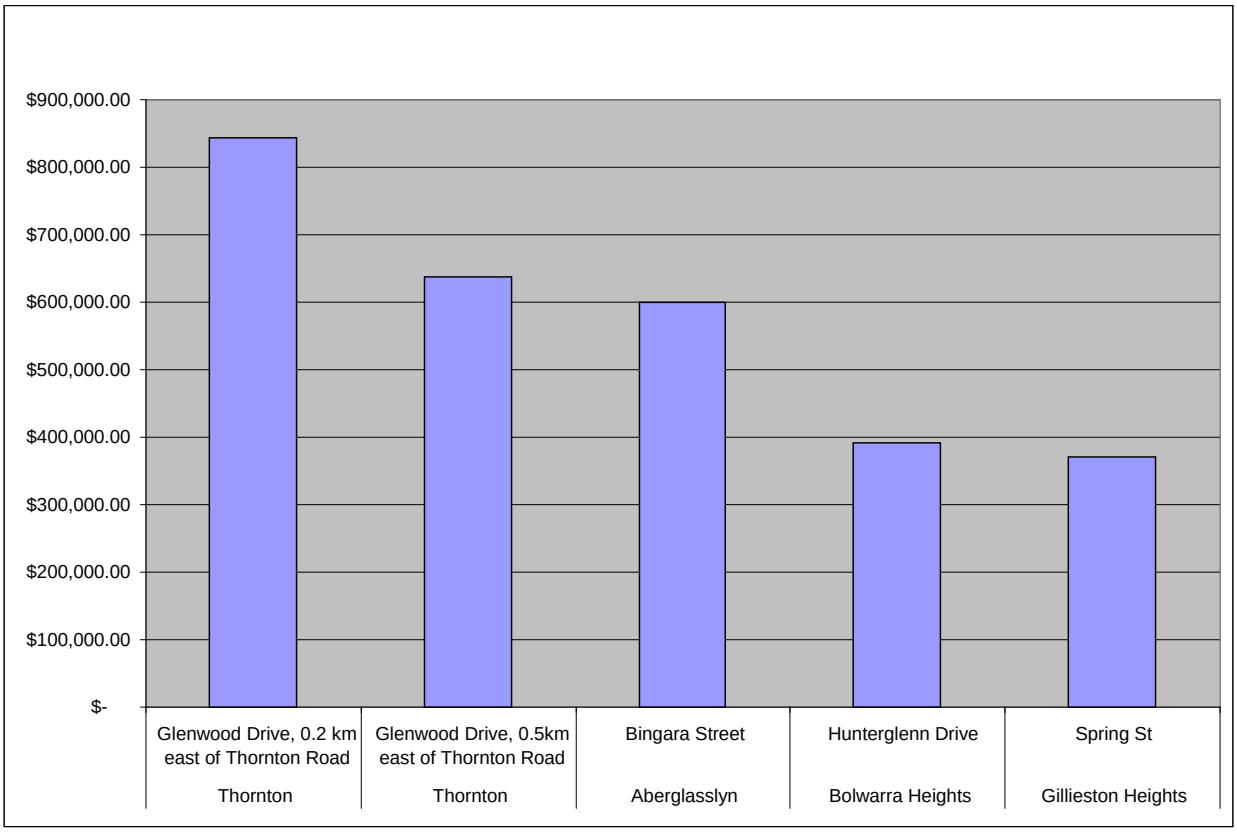
Table 4.3. Demand Management Plan Summary

Service Activity	Demand Management Plan
Testing	Test bridges on effected routes eg. Collector Roads and others were loads are critical
Regular Formal Inspections	In accordance with ARRB Bridge Manual, see details in Section 5.3

4.4 New Assets from Growth

The new assets required to meet growth will be acquired from land developments and construction by Council. The new asset values are summarised in Fig 1.

Fig 1. New Assets from Growth since 2000



Acquiring these new assets will commit Council to fund ongoing operations and maintenance costs for the period that the service provided from the assets is required. These future costs are identified and considered in developing forecasts of future operating and maintenance costs.

The cost of construction in recent years has increased dramatically. Costs of labour, steel and machinery has all increased in the order of 8-12% in the last three years. Whilst construction of bridges is more efficient with precast reinforced concrete members etc the cost of bridge replacement is has also increased with the improved environmental requirements for construction above waterways. These changes have all lead to an increase in bridge renewal and replacement costs.

5. LIFECYCLE MANAGEMENT

The lifecycle management details how Council 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

5.1.1 Physical parameters

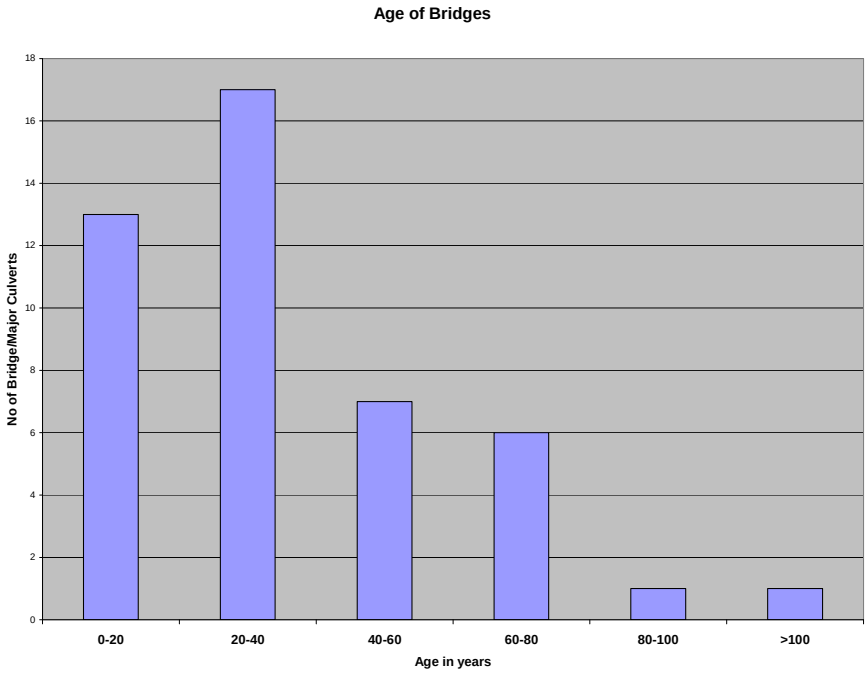
The assets covered by this asset management plan are shown below.

Asset category	Number of Assets
Timber Bridges	3
Steel Bridge	1
Reinforced Concrete Bridges	14
Major Culvert – Box Culverts	17
Major Culvert – Pipe Culverts	9
TOTAL	**44**

Council has untaken a timber bridge replacement program. Five (5) timber bridges have been replaced by reinforced concrete bridges and one box culvert.

The age profile of Council's assets is shown below.

Fig 2 Asset Age Profile



5.1.2 Asset capacity and performance

Council's services are generally provided to meet design standards where these are available. Whilst the below table lists bridges with known service deficiencies please note that these bridges are still managed such that they are safe to all road users.

Locations where deficiencies in service performance are known are detailed in Table 5.1.2.

Table 5.1.2. Known Service Performance Deficiencies

Location	Service Deficiency
Trappaud Road Bridge	Single Lane Bridge, Timber Construction, Growing Demand area, 9 tonne load limit
Yarrabong Bridge	Single Lane Bridge, Growing Demand area
Melville Ford Bridge	Single Lane Bridge, Low Level, Timber Construction, Large alternate route, 5 tonne load limit
Victoria Bridge , High St East Maitland	20 tonne load limit, 1896 construction, narrow lanes and cyclepaths, historically classified
Dagworth Road	Single Lane bridge, Timber Construction, 9 tonne load limit

The above service deficiencies were identified from our asset register and development investigation areas.

5.1.3 Asset condition

Condition is measured using a 1 – 5 rating system.[2]

Rating	Description of Condition
5	Only planned maintenance required.
4	Minor maintenance required plus planned maintenance.
3	Significant maintenance required.
2	Significant renewal/upgrade required.
1	Unserviceable.

Overall, the asset condition of the Bridge network in Maitland is 4, being of good condition with minor and planned maintenance required. This being the average means that there are bridges with conditions rating from 1 through to 5. Overall, 70% of the bridge and major culvert network has a rating of 3 to 5, and 30% of the network has a rating of 1 to 2. The target standard for the bridge network is to have 85% at 3-5 and 15% at 1-2.

[2] IIMM 2006, Appendix B, p B:1-3 ('cyclic' modified to 'planned')

Table 5.1.3 Condition of Asset

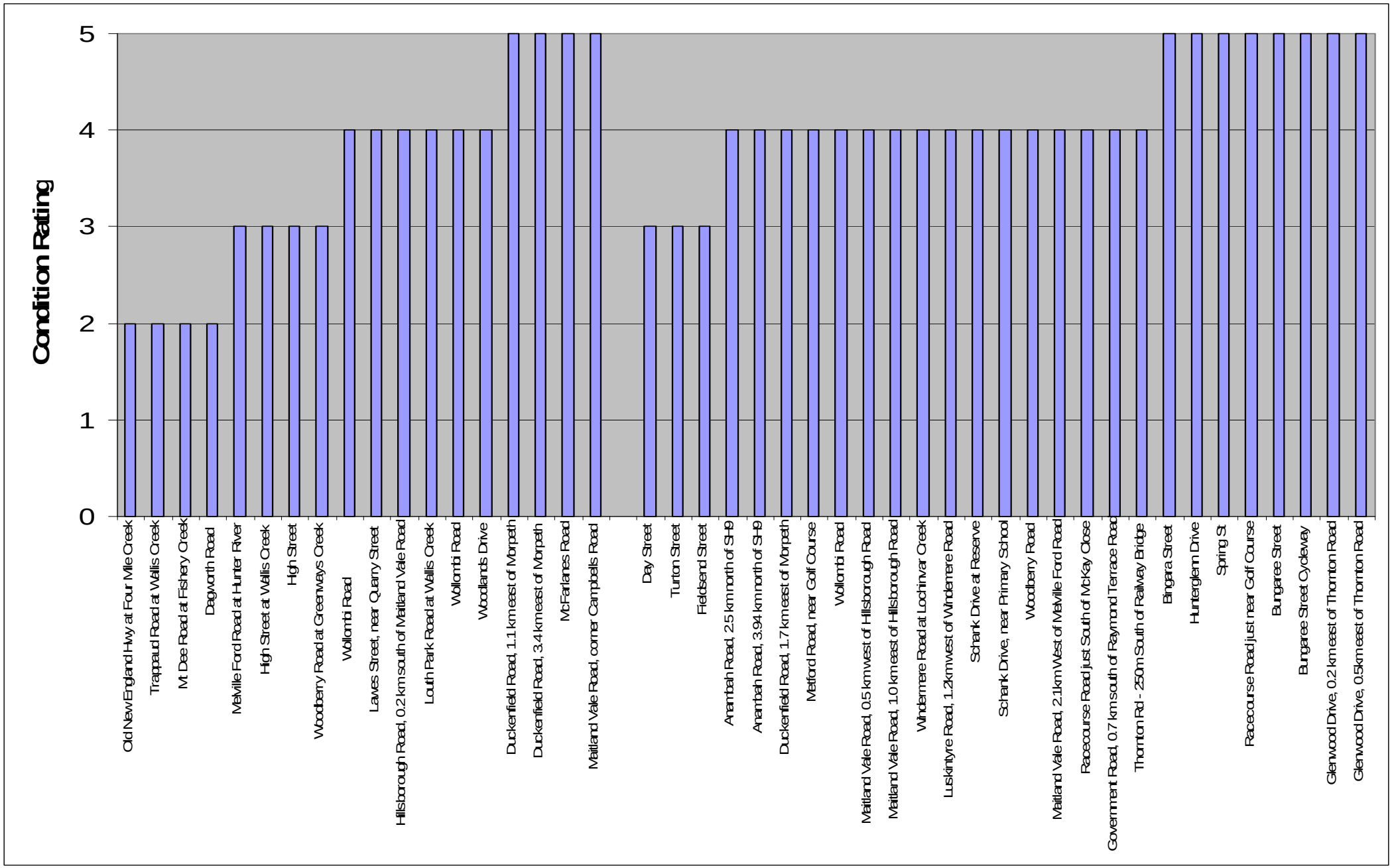
ASSET	CURRENT WRITTEN DOWN VALUE	CURRENT REPLACEMENT VALUE
Bridges	$10,600,000	$25,800,000

Estimate of works required to bring bridge Asset up to satisfactory standard (Based on bridge upgrade and replacement survey)	$1,100,000
Estimate of annual expense of maintaining bridge assets to that standard (consisting of maintenance and renewal works)	$270,000

To bring the bridge stock up to satisfactory condition would be to simply replace or decommission those bridges rated two or below. An estimated cost to bring bridges up to satisfactory condition is $1,100,000 (Excluding Trappaud Road Bridge) and is set out below:

1. Replace Trappaud Road Bridge $900,000 Programmed
2. Refurbish Mt Dee Bridge $200,000
3. Refurbish Melville Ford Bridge $300,000
4. Yarrabong Duplication $600,000

The condition profile of Council's assets is shown in Figure 3.


Condition Rating
0
1
2
3
4
5
Old New England Hwy at Four Mile Creek
Trappaud Road at Wallis Creek
Mt Dee Road at Fishery Creek
Dagworth Road
Melville Ford Road at Hunter River
High Street at Wallis Creek
High Street
Woodberry Road at Greenways Creek
Wollombi Road
Laves Street, near Quarry Street
Hillsborough Road, 0.2 km south of Maitland Vale Road
Louth Park Road at Wallis Creek
Wollombi Road
Woodlands Drive
Duckenfield Road, 1.1 km east of Monpath
Duckenfield Road, 3.4 km east of Monpath
McFarlanes Road
Maitland Vale Road, corner Campbells Road
Day Street
Turton Street
Fieldsend Street
Anambah Road, 2.5 km north of SH9
Anambah Road, 3.94 km north of SH9
Duckenfield Road, 1.7 km east of Monpath
Metford Road, near Golf Course
Wollombi Road
Maitland Vale Road, 0.5 km west of Hillsborough Road
Maitland Vale Road, 1.0 km east of Hillsborough Road
Windermere Road at Lochinvar Creek
Luskintyre Road, 1.2km west of Windermere Road
Schark Drive at Reserve
Schark Drive, near Primary School
Woodberry Road
Maitland Vale Road, 2.1km West of Melville Ford Road
Racecourse Road just South of McKay Close
Government Road, 0.7 km south of Raymond Terrace Road
Thornton Rd - 250m South of Railway Bridge
Bingara Street
Hunterglenn Drive
Spring St
Racecourse Road just near Golf Course
Bungaree Street
Bungaree Street Cycleway
Glenwood Drive, 0.2 km east of Thornton Road
Glenwood Drive, 0.5km east of Thornton Road

5.1.4 Asset valuations

The value of assets as at June 2009 covered by this asset management plan is summarised below. Assets were last re-valued at $25.8 Million. Assets are valued rates used to calculate the unit rates were from examples and future replacement of these assets will involve demolition of existing bridge/major culvert. The cost of bridge replacement based on previous works was $3000 a square meter of deck, and major culverts were $2000 a square meter of deck, both of these estimated include design and site preparation works but as costs continue to rise this estimates might be considered low.

Current Replacement Cost (cost of replacing current bridge/culvert assets)	- $31.8M
Depreciable Amount (amount lost due to depreciation over 82yrs)	- $15.2M
Depreciated Replacement Cost (depreciated cost of replacing the assets)	- $5.3M
Annual Depreciation Expense	- $78,000
Amount to bring up to satisfactory condition	- $1.1M

Cause and Effect Method of Assumption

The premise is – if the bridge stock is well maintained and the elements are renewed in a timely manner then the whole of bridge structure should conceivably achieve 200years. (There are many examples of bridges in excess of 100years in our local area, these bridges have been maintained and are still safely used by the community).

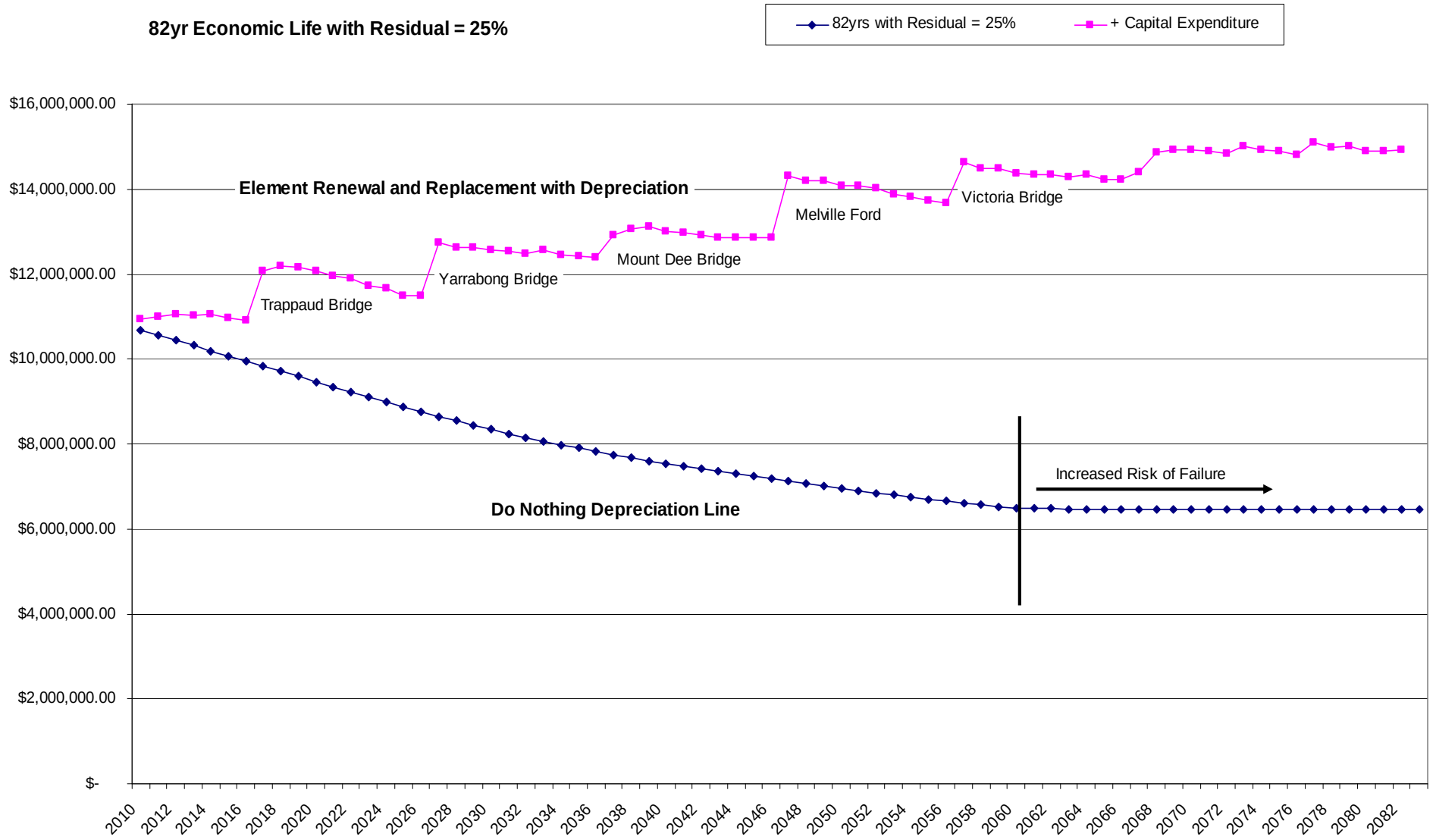
The calculation of useful life can be achieved by summing the element renewal costs and the ultimate replacement cost which will account for the true consumption of the asset.

This is a sound financial representation of asset deterioration. The renewal program located in Appendix B sets out the probable element renewal and likely bridge replacement for the next 75years.

Now apply a residual value of 25% based on current understanding of that once the bridge stock reaches 82years old it has totally depreciated but it still serviceable and has a value.

This information provides a well considered format for use in Depreciating accounting and the ten (10) year financial plan.

The graph below shows the depreciation of the asset stock at a useful life of 82years with the forecasted expenditure expected on the stock.


82yr Economic Life with Residual = 25%
82yrs with Residual = 25%
+ Capital Expenditure
$16,000,000.00
$14,000,000.00
$12,000,000.00
$10,000,000.00
$8,000,000.00
$6,000,000.00
$4,000,000.00
$2,000,000.00
$-
Element Renewal and Replacement with Depreciation
Trappaud Bridge
Yarrabong Bridge
Mount Dee Bridge
Melville Ford
Victoria Bridge
Do Nothing Depreciation Line
Increased Risk of Failure
2010
2012
2014
2016
2018
2020
2022
2024
2026
2028
2030
2032
2034
2036
2038
2040
2042
2044
2046
2048
2050
2052
2054
2056
2058
2060
2062
2064
2066
2068
2070
2072
2074
2076
2078
2080
2082

As indicated from the graph above, the current expenditure from and annualised point of view is higher than the forecast depreciation

5.2 Risk Management Plan

An assessment of risks[3] associated with service delivery from infrastructure assets has identified critical risks to Council. The risk assessment process identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, develops a risk rating, evaluates the risk and develops a risk treatment plan for non-acceptable risks.

See Councils Bridge and Major Culvert Infrastructure Risk Management Plan for risk assessment in Appendix A.

5.3 Routine Maintenance

Routine maintenance is the regular 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.

5.3.1 Maintenance

Maintenance includes reactive, planned and cyclic maintenance work activities.

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 the **Level 1 ARRB Local Roads Bridge Manual**, inspections that are to be carried out on an Annual basis and after each flood event or in the event of an accident/overload. This inspection is recorded on the checklists provided for each bridge and a photographic record is taken.

If the inspecting officer requires further investigation of the bridge resulting from the level 1 inspection, then a **Level 2 inspection** accordance with ARRB Manual is undertaken. These inspections involve giving each bridge member a rating based on a condition assessment. This condition assessment is to be undertaken by a Council officer with significant experience in bridges and bridge repair.

If further information is required then an **ARRB Level 3 inspection** is undertaken. Council will require a specialist bridge engineering consultant to be engaged to undertaken this assessment.

Cyclic maintenance is replacement of higher value components/sub-components of assets that is undertaken on a regular cycle including repainting, element replacement, etc. This work generally falls below the capital/maintenance threshold.

Maintenance expenditure trends are shown in Table 5.3.1

[3] MCC Bridge and Major Culvert Infrastructure Risk Management Plan

Table 5.3.1. Maintenance Expenditure Trends

Year	Maintenance Expenditure	
	Reactive	**Planned**
2005/06	$11 563	$25 000
2006/07	$23 366	$25 000
2007/08	$9 313	$25 000

Planned maintenance work is 65% of total maintenance expenditure.

Maintenance expenditure levels have been recently lower than planned forecast expenses due to the timber bridge replacement program but were still considered to be adequate to meet required service levels. Future revision of this asset management plan will include linking required maintenance expenditures with required service levels.

Assessment and prioritisation of reactive maintenance is undertaken at Regular Maintenance Delivery Program meetings are held between Assets and Infrastructure Planning and City Works and Services divisions within Council. The aim of the meeting is to synchronise priorities, such that the maintenance program is managed within the levels of service and resources available. To ensure the effectiveness of this program, it is essential that these meetings are formally conducted and actioned appropriately.

5.3.2 Standards and specifications

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

- ARRB Local Roads Bridge Management Manual, Guidelines to good Practice, April 2000
- RTA Guidelines
- IPWEA BRIDGEguide
- Austroads – Guidelines for Bridge Management, Structural Information 2004
- Relevant Australian Standards for Construction ie, Timber, Reinforced Concrete, Steel

5.3.3 Summary of future maintenance expenditures

Future maintenance expenditure is forecast and detailed below in Table 5.3.3. The figures for the inspection cost estimates were obtained from IPWEA BRIDGEguide July 2009. Note that all costs are shown in current 2010/11 dollar values.

Table 5.3.3. Planned Maintenance Expenditure for each Asset

Maintenance Activity	Frequency (years)	Annual Cost $ 09/10
Level 1 Inspection	1	$250
Level 2 Inspection	3	$250
Level 3 Inspection	6	$250
Scupper Cleaning	6 months	$250
Deck Cleaning	6 months	$250
Vegetation Removal	1	$300
Minor Scour Rehabilitation	1	$200
Handrail/Guardrail Maintenance	1	$100
Watercourse Maintenance	1	$100

This will give a cost of $1950 per year for each Bridge and Major Culvert. This will require a total maintenance budget of **$85 800 per annum.**

The costs for maintenance according to the IPWEA BRIDGEguide should average out about $1000 each capped at $5000 for any one bridge in a year. Maitland City Council has adopted an average maintenance per bridge of $1200 given the rural nature of most bridges and major culverts and the likely vegetation to be controlled at each site.

Deferred maintenance, ie 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 Council's operating budget and grants where available. This is further discussed in Section 6.2.

5.4 Bridge Element 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

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 and scheduled in future works programmes. The priority ranking criteria is detailed in Table 5.4.1.

Table 5.4.1 Renewal Priority Ranking Criteria

Criteria	Weighting
Fit for purpose - traffic volumes	25%
Safety	50%
Maintenance requirements	25 %
Total	**100%**

5.4.2 Renewal standards

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

- ARRB Local Roads Bridge Management Manual, Guidelines to good Practice, April 2000
- RTA Guidelines
- IPWEA BRIDGEguide
- Austroads – Guidelines for Bridge Management, Structural Information 2004
- Relevant Australian Standards for Construction ie, Timber, Reinforced Concrete, Steel

5.4.3 Summary of future renewal expenditure

Projected future renewal expenditures are forecast for each renewal activity. Note that all costs are shown in current 2009/10 dollar values.

The projected capital renewal program is shown in Appendix B.

Fig 5.4.3 Projected Capital Renewal Expenditure

Renewal Activity Bridges	Frequency (years)	Renewal Activity Culverts	Frequency (years)
Paint	10	Guardrail Replacement	25
Guardrail Replacement	20	Scour Protection	20
Scour Protection	25	Concrete Repair	30
Deck Pavement Rehabilitation	20		
Bearing/Expansion Joint Replacement	40		
Girder/Structural Element Replacement	50		
Spalled Concrete Repair	30		

This will give an average cost of $7 000 per year for each Bridge and $2 500 per year for each Major Culvert. This will require a total renewal budget of **$185 000 per annum.**

A detailed list of the 75 year bridge plan is in Appendix B

Deferred renewal, ie 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 Council's capital works program and grants where available. This is further discussed in Section 6.2.

5.5 Creation/Acquisition/Upgrade/Replacement 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 Council from land development. These assets from growth are considered in Section 4.4.

5.5.1 Selection criteria

New assets and upgrade/expansion of existing assets are identified from various sources such as councillor 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 and scheduled in future works programmes. The priority ranking criteria is detailed below.

Table 5.5.1 New Assets Priority Ranking Criteria

Criteria	Weighting
Development Requirements/Contributions	50%
Age	25%
Condition	25%

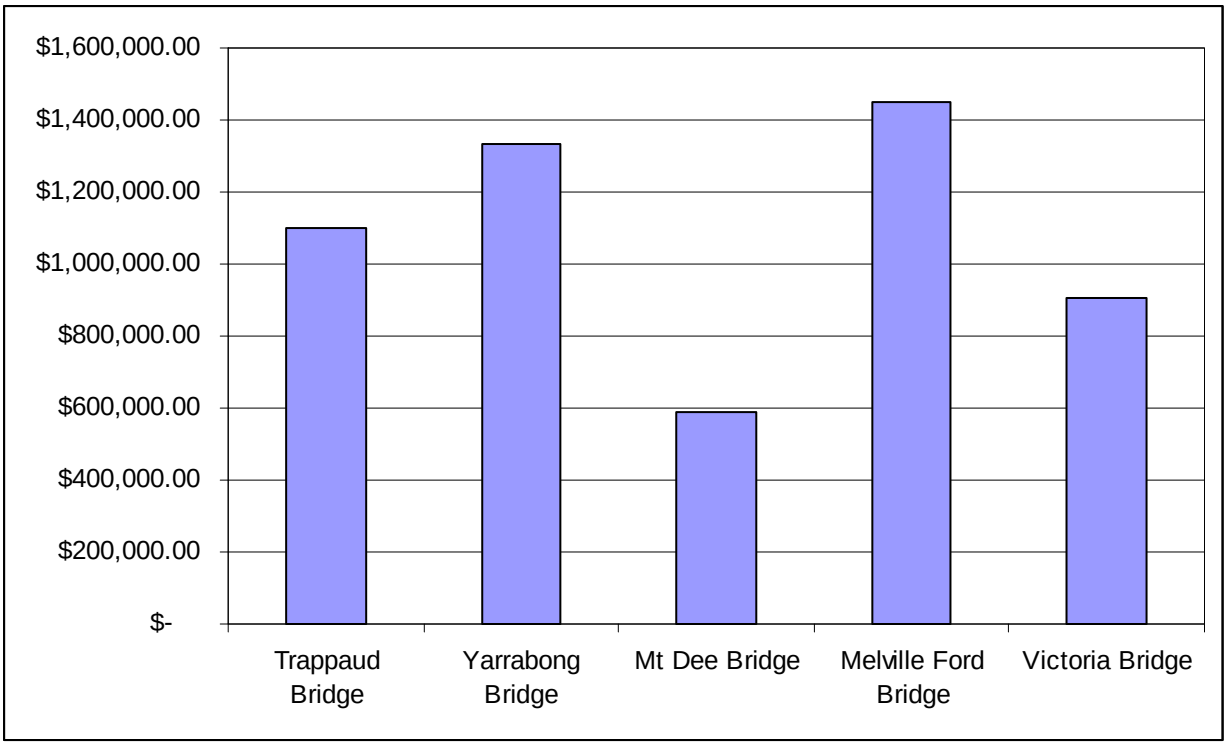
5.5.2 Standards and specifications

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

5.5.3 Summary of future upgrade/new assets expenditure

Planned upgrade/new asset expenditures are summarised in Fig 6. The planned upgrade/new capital works program is shown in Appendix B. All costs are shown in current 2009/10 dollar values and only detail the cost replacement of the current configuration of bridge.

Fig 6. Planned Capital Upgrade/New Asset Expenditure



New assets and services are to be funded from Council'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.

Table 5.6 Assets identified for Disposal

Asset	Reason for Disposal	Timing	Cash flow from disposal
Four Mile Creek Bridge	Road not in use	5-10yrs	Nil

Where cash flow projections from asset disposals are not available, these will be developed in future revisions of this asset management plan.

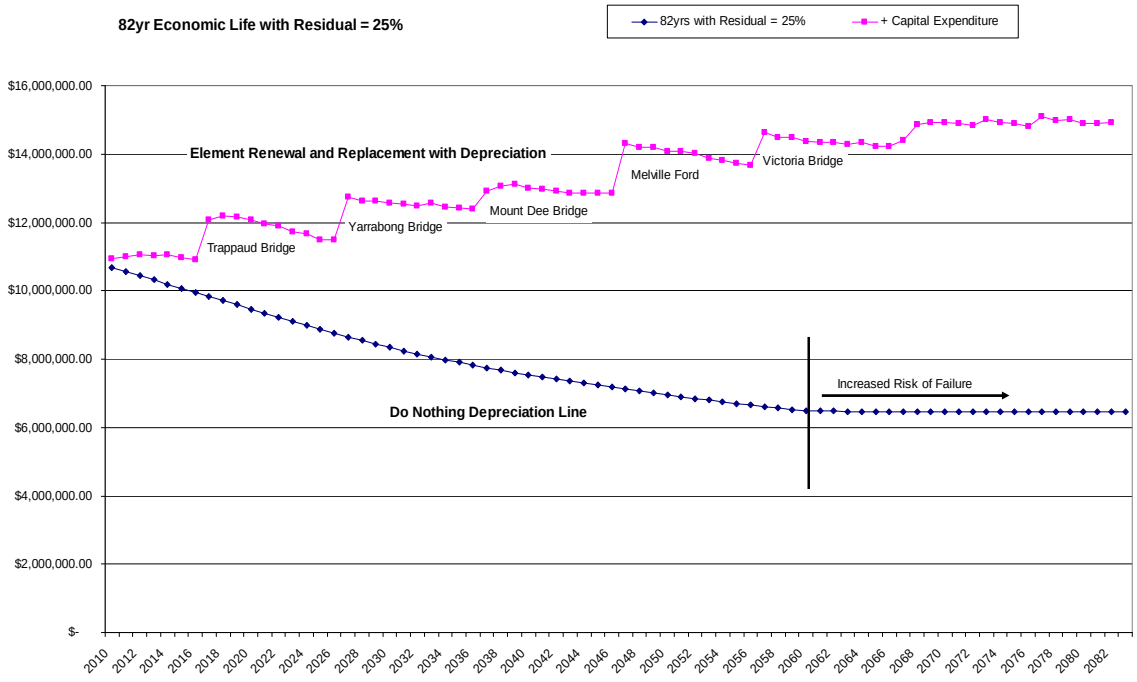
6. FINANCIAL SUMMARY

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 Fig 7 for planned operating (operations and maintenance) and capital expenditure (renewal and upgrade/expansion/new assets).

Fig 7. Planned Operating and Capital Expenditure



Note that all costs are shown in current 2009/10 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 15 year financial planning period.

Medium term – 15 year financial planning period

This asset management plan identifies the estimated maintenance and capital expenditures required to provide an agreed level of service to the community over a 15 year period for input into a 15 year financial plan and funding plan to provide the service in a sustainable manner. See figure 8 for a detailed financial outlook with CPI = 3% annually.

Fig 8. Projected Budget 15years with CPI

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Renewal	$282,500	$95,000	$175,000	$200,000	$115,000	$145,000	$50,000	$70,000	$1,298,000	$280,000	$117,500	$75,000	$40,000	$90,000	$90,000
Maintenance	$85,000	$85,000	$85,000	$85,000	$85,000	$85,000	$85,000	$85,000	$85,000	$85,000	$85,000	$85,000	$85,000	$85,000	$85,000
TOTAL	$367,500	$180,000	$260,000	$285,000	$210,000	$230,000	$135,000	$155,000	$1,383,000	$202,500	$202,500	$160,000	$125,000	$175,000	$175,000

7. PLAN IMPROVEMENT AND MONITORING

7.1 Performance Measures

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

- The degree to which the required cashflows identified in this asset management plan are incorporated into council'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;

7.2 Improvement Plan

The asset management improvement plan generated from this asset management plan is shown in Table 7.2.

Table 7.2 Improvement Plan

Task No	Task	Responsibility	Resources Required	Timeline
1.	Collect load data for all Bridges	AIP	$25,000 pa	10 years
2.	Long Bridge responsibility – determine	AIP	Nil.	1 year
3.	Customer Survey and Analysis	AIP	Nil.	5 years
4.				
5.				
6.				
7.				
8.				
9.				
10.				

7.3 Monitoring and Review Procedures

This asset management plan will be reviewed during annual budget preparation 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.

The Plan has a life of 4 years and is due for revision and updating within 2 years of each Council election.

REFERENCES

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

IPWEA 2009, "BRIDGEguide", Institute of Public Works Engineering Australia, NSW, www.ipwea.org.au

ARRB 'Bridge Manual'

APPENDICES

Appendix A Risk Management Plan

Appendix B 4 Year Capital Work Program

Appendix C Projected 75 year Capital Renewal Works Program

Appendix D Planned Upgrade/Exp/New 75 year Capital Works Program

Maitland City Council

BRIDGE / MAJOR CULVERT

‘CORE’ INFRASTRUCTURE RISK MANAGEMENT PLAN

Version 1

June 2009

Document Control	

Document ID: 59_07_070909 nams.plus core irmp template v6					
Rev No	Date	Revision Details	Author	Reviewer	Approver

TABLE OF CONTENTS

1. INTRODUCTION

1.1 Aim

The purpose of this core infrastructure risk management plan is document the results and recommendations resulting from periodic identification, assessment and treatment of risks associated with providing services to the community from infrastructure, using the fundamentals of Australian Standard for Risk Management, AS/NZS 4360; 2004.

Risk Management is defined in AS/NZS 4360; 2004 as: "the culture, processes and structures that are directed towards realising potential opportunities whilst managing adverse effects" [1].

[1] p4

1.2 Objectives

The objectives of the plan are:

- to identify risks to the Maitland City Council that may impact of the delivery of services from infrastructure
- to select credible risks for detailed analysis,
- to analyse and evaluate risks in accordance with AS/NZS 4360:2004,
- to prioritise risks,
- to identify risks requiring treatment by management action,
- to develop risk treatment plans identifying the tasks required to manage the risks, the person responsible for each task, the resources required and the due completion date.

1.3 Core and Advanced Risk Management

This core risk management plan has been designed to be read as a supporting document to the infrastructure and asset management plan. It has been prepared using the fundamentals of Australian Standard for Risk Management, AS/NZS 4360:2004.

Future revisions of this risk management plan will move toward more comprehensive documentation in accordance with Australian Standard for Risk Management, AS/NZS 4360:2004.

1.4 Scope

This plan considers risks associated with delivery of services from infrastructure.

1.5 The Risk Management Context

Council has implemented many management practices and procedures to identify and manage risks associated with providing services from infrastructure assets. These include:

- operating a reactive maintenance service for all assets and services;
- operating a planned maintenance system for key assets;
- monitoring condition and remaining service life of assets nearing the end of their service life;
- renewing and upgrading assets to maintain service delivery;
- closing and disposing of assets not providing the required service level; and
- acquiring or constructing new assets to provide new and improved services.

1.5.1 Maintenance Delivery Program (MDP)

The MDP is based upon a cooperative effort between the asset owner and the service provider.

Table 1.5.1. Responsibilities

Asset Owner Responsibilities Assets and Infrastructure Planning	Service Provider Responsibilities City Works and Services
review CSRs and scheduled inspections;	maintain a written schedule of patrols;
locate and inspect;	to provide input on works program;
determine defect severity and extent;	provide daily running sheets of all works undertaken;
prioritise;	ensure works meet relevant standards;
produce works program;	timely and accurate reporting;
timely and accurate reporting;	sign off;
sign off;	MDP meeting attendance
administer MDP meetings	

1.5.2 Maintenance Delivery Program Meeting

Regular Maintenance Delivery Program meetings are held between the asset owner and the service provider. The aim of the meeting is to synchronise priorities, such that the maintenance program is managed within the levels of service and resources available. To ensure the effectiveness of this program, it is essential that these meetings are formally conducted and actioned appropriately.

The agenda of this meeting includes, but is not limited to:

- agreement of works program for the next works period;
- quality assurance;
- budget;
- constraints;
- risk;
- general maintenance issues

For the success of this program it is essential that completed works and new works have been accurately processed and recorded. Completed work items are to be handed over by the service provider one week prior to the formal meeting allowing the asset owner to produce accurate and up to date work orders.

1.6 Risk Management Model

The risk management process used in this project is shown in Fig 1.6 below.

It is an analysis and problem solving technique designed to provide a logical process for the selection of treatment plans and management actions to protect the community against unacceptable risks.

The process is based on the fundamentals of Australian Standard AS/NZS 4360:2004, Risk Management.

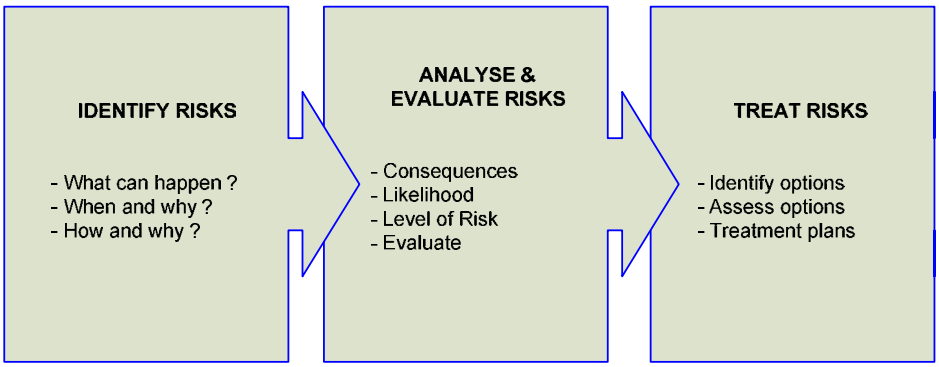


Fig 1.6. Risk Management Process – Abridged
Source: Adapted from AS/NZS 4360:2004, Fig 3.1 p 13

2. COMMUNICATION AND CONSULTATION

Risk communication is 'the interactive process of exchange of information and opinion involving multiple messages about the nature of risk and risk management'. [2]

'Appropriate communication and consultation seeks to:

- Improve people's understanding of risks and the risk management processes;
- Ensure that the varied views of stakeholders are considered; and
- Ensure that all participants are aware of their roles and responsibilities.'

The development of this infrastructure risk management plan was undertaken using a consultative team approach to:-

- Identify stakeholders and specialist advisors who need to be involved in the risk management process;
- Discuss and take into account the views of stakeholder and specialist advisors; and
- Communicate the results of the risk management process to ensure that all stakeholders are aware of and understand their and roles and responsibilities in risk treatment plans.

Members of the team responsible for preparation of this risk management plan are:

- Assets Engineer – Chris McGrath
- Infrastructure Assets Engineer – Mel Marriot
- Investigations Engineer – Michelle Viola

[2] HB 436:2004, Sec 3.1, p 20

3. RISK IDENTIFICATION

3.1 General

Potential risks associated with providing services from infrastructure were identified at meetings of the council's infrastructure risk management team.

Team members were asked to identify "What can happen, where and when" to the various council services and then to identify possible "Why and how can it happen" as causes for each potential event.

Each risk was then tested for credibility to ensure that available resources were applied to those risks that the team considered were necessary to proceed with detailed risk analysis

The assets at risk, what can happen, when, possible cause(s), existing controls and credibility are shown in Appendix A – Risk Register.

Credible risks are subjected to risk analysis in Section 4.4.5. Risks assessed as non-credible were not considered further and will be managed by routine procedures.

4. RISK ANALYSIS

4.1 General

Credible risks which have been identified during the risk identification stage were analysed. This process takes into account the '**likelihood'** and the '**consequences'** of the event. The objective of the analysis is to separate the minor acceptable risks from the major risks and to provide data to assist in the assessment and management of risks.

The risk analysis process is applied to all credible risks to determine levels of risk. The process acts as a filter by applying a reasoned and consistent process. Minor risks can be eliminated from further consideration and dealt with within standard operating procedures.

The remaining risks will therefore be of such significance as to consider the development of risk treatment options and plans.

4.2 Likelihood

Likelihood is a qualitative description of probability of an event occurring. The process of determining likelihood involves combining information about estimated or calculated probability, history or experience. Where possible it is based on past records, relevant experience, industry practice and experience, published literature or expert judgement.

4.3 Consequences

Consequences are a qualitative description of the effect of the event. The process of determining consequences involved combining information about estimated or calculated effects, history and experience.

4.4 Method

The risk analysis method uses the risk rating chart shown in Section 4.4.3. This process uses a qualitative assessment of likelihood/probability and history/experience compared against a qualitative assessment of severity of consequences to derive a risk rating.

The qualitative descriptors for each assessment are shown below.

4.4.1 Likelihood

Likliehood	Descriptor	Probability of occurrence
Rare	May occur only in exceptional circumstances	More than 20 years
Unlikely	Could occur at some time	Within 10-20 years
Possible	Might occur at some time	Within 3-5 years
Likely	Will probably occur in most circumstances	Within 2 years
Almost certain	Expected to occur in most circumstances	Within 1 year

4.4.2 Consequences

Consequences	Description
Insignificant	No injuries, low financial loss (less than $10,000)
Minor	First aid treatment, on-site release immediately contained, medium financial loss ($10,000 - $50,000)
Moderate	Medical treatment required, on-site release contained with outside assistance, high financial loss ($50,000 - $200,000)
Major	Extensive injuries, loss of production capacity, off-site release with no detrimental effects, major financial loss ($200,000 - $1,000,000)
Catastrophic	Deaths, toxic release off-site with detrimental effect, huge financial loss (more than $1M)

4.4.3 Risk Assessment

The risk assessment process compares the likliehood of a risk event occurring against the consequences of the event occurring. In the risk rating table below, a risk event with a likliehood of 'Possible' and a consequence of 'Major' has a risk rating of 'High'. This rating is used to develop a typical risk treatment in Section 5.3.

Risk Rating					
Likelihood	Consequences				
	Insignificant	Minor	Moderate	Major	Catastrophic
Rare	L	L	M	M	H
Unlikely	L	L	M	M	H
Possible	L	M	H	H	H
Likely	M	M	H	H	VH
Almost Certain	M	H	H	VH	VH

Ref: HB 436:2004, Risk Management Guidelines, Table. 6.6 p 55.

4.4.4 Indicator of Risk Treatment

The risk rating is used to determine risk treatments. Risk treatments can range from immediate corrective action (such as stop work or prevent use of the asset) for 'Very High' risks to manage by routine procedures for 'Low' risks.

An event with a 'High Risk' rating will require 'Prioritised action'. This may include actions such as reducing the likliehood of the event occurring by physical methods (limiting usage to within the asset's capacity, increasing monitoring and maintenance practices, etc), reducing consequences (limiting speed of use, preparing response plans, etc) and/or sharing the risk with others (insuring the organisation against the risk).

Risk Rating		Action Required
VH	Very High Risk	Immediate corrective action
H	High Risk	Prioritised action required
M	Medium Risk	Planned action required
L	Low Risk	Manage by routine procedures

4.4.5 Analysis of Risk

The team conducted an analysis of credible risks identified in section 3.1 using the method described above to determine a risk rating for each credible risk.

The credible risks and risk ratings are shown in Appendix A – Risk Register

4.5 Risk Evaluation

The risk management team evaluated the need for risk treatment plans using an overall assessment of the following evaluation criteria to answer the question "is the risk acceptable?"

Criterion	Risk Evaluation Notes
Operational	Risks that have the potential to reduce services for a period of time unacceptable to the community and/or adversely affect the council's public image.
Technical	Risks that cannot be treated by council's existing and/or readily available technical resources.
Financial	Risks that cannot be treated within council's normal maintenance budgets or by reallocation of an annual capital works program.
Legal	Risks that have the potential to generate unacceptable exposure to litigation.
Social	Risks that have the potential to: - cause personal injury or death and/or - cause significant social/political disruption in the community.
Environmental	Risks that have the potential to cause environmental harm.

The evaluation criteria are to provide guidance to evaluate whether the risks are acceptable to the council and its stakeholders in providing services to the community. Risks that do not meet the evaluation criteria above are deemed to be unacceptable and risk treatment plans are required to be developed and documented in this Infrastructure Risk Management Plan.

5. RISK TREATMENT PLANS

5.1 General

The treatment of risk involves identifying the range of options for treating risk, evaluating those options, preparing risk treatment plans and implementing those plans. This includes reviewing existing guides for treating that particular risk, such as Australian and State legislation and regulations, Australian Standards and Best Practice Guides.

Developing risk treatment options starts with understanding how risks arise, understanding the immediate causes and the underlying factors that influence whether the proposed treatment will be effective.

One treatment option is to remove the risk completely by discontinuing the provision of the service.

Other options include risk reduction by reducing the likliehood and/or the consequences of the risk.

5.2 Risk Treatment Process

The risk treatment process comprises 5 steps.

Step 1. Review causes and controls

The risk identification process documented in Section 3 included identifying possible causes and documenting existing controls.

Step 2. Develop treatment options

Treatment options include those that eliminate risk, reduce the likliehood or the risk event occurring, reducing the consequences should the risk event occur, sharing of the risk with others and accepting the risk.

Step 3. Assess risk treatment options against costs and residual risk

The method of assessment of risk treatment options can range from an assessment by a local group of stakeholders and practitioners experienced in operation and management of the assets/service to detailed risk cost and risk reduction cost/benefit analysis.

Step 4. Select optimum risk treatment

Step 5. Develop risk treatment plans

5.3 Risk Treatments

The risk treatments identified for non-acceptable risks are detailed in Appendix A – Risk Register.

5.4 Risk Treatment Plans

From each of the risk treatments identified in Appendix A – Risk Register, risk treatment plans were developed.

The risk treatment plans identify for each non-acceptable risk:-

1. Proposed action
2. Responsibility
3. Resource requirement/budget
4. Timing
5. Reporting and monitoring required

The risk treatment plan is shown in Appendix A – Risk Register.

6. MONITORING AND REVIEW

The plan will be monitored and reviewed as follows.

Activity	Review Process
Review of new risks and changes to existing risks	Annual review by team with stakeholders and report to council
Review of Risk Management Plan	3 yearly review and re-write by team and report to council
Performance review of Risk Treatment Plan	Action plan tasks incorporated in council staff performance criteria with 6 monthly performance review. Action plan tasks for other organisations reviewed at annual team review meeting

7. REFERENCES

AS/NZS 4360:2004, Australian/New Zealand Standard, Risk Management, Standards Australia, Sydney.

HB 436:2004, Risk Management Guidelines, Companion to AS/NZS 4360:2004, Standards Australia, Sydney.

International Infrastructure Management Manual, 2006, Institute of Public ~Works Engineering Australia, Sydney, 2006 www.ipwea.org.au

BRIDGE RENEWAL PLAN 75YRS

March 2011

Bridge Name	Material	Year Constructed	Replacement Cost Current State	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083			
Element	Unit Rate																																																																																	
Four Mile	Concrete	1930	$ 525,000.00																																																																													
Replacement	$ 525,000.00																																																																															
Paint																																																																																
Guardrail Replacement																																																																																
Scour Protection				DECOMMISION																																																																											
Deck/Approach Rehab																																																																																
Bearing Replacement																																																																																
Structural Element Refub																																																																																
Spalled Concrete																																																																																
Trappaud Bridge	Timber	1930	$ 251,625.00																																																																												$ -		
Replacement	$1,098,000.00									I																																																																			
Paint	$10,000.00					I																																																																								$ 10,000.00		
Guardrail Replacement	$30,000.00																															I																				I																				I						$ 90,000.00		
Scour Protection	$25,000.00																																				I																									I															I	$ 75,000.00		
Deck/Approach Rehab	$20,000.00																															I																				I																				I						$ 60,000.00		
Bearing/ Expansion Replacement	$50,000.00																																																			I																										$ 50,000.00		
Structural Element Refub	$50,000.00																																																													I																$ 50,000.00		
Spalled Concrete	$50,000.00																																									I																														I						$ 100,000.00		
																																																																																$ 435,000.00	$ 5,800.00
Mt Dee	Concrete	1927	$ 591,600.00																																																																												$ -		
Replacement	$591,600.00																															I																																															
Guardrail Replacement	$30,000.00																I																																			I																				I						$ 90,000.00		
Scour Protection	$25,000.00						I																																																	I																				$ 50,000.00		
Deck/Approach Rehab	$20,000.00				I																				I																											I																				I						$ 80,000.00		
Bearing/ Expansion Replacement	$50,000.00					I																																																																		I						$ 100,000.00		
Structural Element Refub	$50,000.00			I																																																																									$ 50,000.00		
Spalled Concrete	$50,000.00			I																																																								I																$ 100,000.00		
																																																																																$ 470,000.00	$ 6,266.67
Dagworth	Timber	1930	$ 318,000.00																																																																												$ -		
Replacement	$420,000.00																																																																															
Paint	$10,000.00												I										I										I										I										I										I										I					$ 70,000.00		
Guardrail Replacement	$10,000.00			I																				I																				I																				I														$ 40,000.00		
Scour Protection	$25,000.00							I																									I																									I																				$ 75,000.00		
Deck/Approach Rehab	$10,000.00																						I																				I																				I															$ 30,000.00		
Structural Element Refub	$50,000.00														I																									I																									I													$ 150,000.00		
																																																																																$ 365,000.00	$ 4,866.67
Melville Ford Bridge	Timber	1946	$ 1,035,000.00																																																																												$ -		
Replacement	$1,449,000.00																																									I																																					
Paint	$5,000.00										I										I										I										I																																					$ 20,000.00		
Deck/Approach Rehab	$10,000.00									I																				I										I																										I												$ 40,000.00		
Structural Element Refub	$50,000.00																								I																																															I						$ 100,000.00		
Pile Replacement	$100,000.00											I																																																																		$ 100,000.00	$ 260,000.00	$ 3,466.67
Victoria Bridge	Steel	1896	$ 903,600.00																																																																												$ -		
Replacement	$903,600.00																																																			I																									
Paint	$50,000.00										I										I										I										I																																					$ 200,000.00		
Guardrail Replacement	$25,000.00			I																				I																				I																												I						$ 100,000.00		
Scour Protection	$15,000.00																										I																																																		I	$ 30,000.00		
Deck/Approach Rehab	$40,000.00																					I																				I																														I						$ 120,000.00		
Bearing Replacement	$50,000.00						I																																							I																																$ 100,000.00		
Structural Element Refub	$100,000.00											I																																																																		$ 100,000.00		
																																																																																$ 650,000.00	$ 8,666.67

BRIDGE RENEWAL PLAN 75YRS

March 2011

The Long Bridge	Concrete	1934	$ 9,051,300.00																																																																									$ -		
Replacement	$9,051,300.00																																																																												
Paint	$75,000.00			I										I										I										I										I										I										I										I				$ 600,000.00		
Guardrail Replacement	$40,000.00						I																									I																																					I																															I	$ 160,000.00		
Deck/Approach Rehab	$50,000.00																																																																													$ -		
Bearing Replacement	$200,000.00																												I																																										I														$ 400,000.00		
Structural Element Refub	$250,000.00												I																																																I																$ 500,000.00		
Spalled Concrete	$250,000.00																																I																														I																$ 500,000.00		
																																																																														$ 2,160,000.00	$ 28,800.00
Woodberry Bridge	Concrete	1974	$ 349,350.00																																																																										$ -		
Replacement	$349,350.00																																																																												
Guardrail Replacement	$20,000.00																	I																						I																			I																						$ 60,000.00		
Scour Protection	$20,000.00					I																										I						I																									I																		$ 80,000.00		
Deck/Approach Rehab	$20,000.00																	I																						I																			I																						$ 60,000.00		
Bearing Replacement	$15,000.00																																							I																																										$ 15,000.00		
Structural Element Refub	$20,000.00																		I																																																						I													$ 40,000.00		
Spalled Concrete	$25,000.00				I																																I																													I															$ 75,000.00		
																																																																														$ 330,000.00	$ 4,400.00
Bishops Bridge	Concrete	1970	$ 586,500.00																																																																									$ -		
Replacement	$586,500.00																																																																												
Guardrail Replacement	$20,000.00													I																						I																				I																				I				$ 80,000.00		
Scour Protection	$20,000.00								I																											I																									I																				$ 60,000.00		
Deck/Approach Rehab	$20,000.00									I																					I																				I																				I								$ 80,000.00		
Bearing Replacement	$15,000.00										I																																									I																													$ 30,000.00		
Structural Element Refub	$20,000.00												I																																																I																$ 40,000.00		
Spalled Concrete	$25,000.00					I																																I																													I															$ 75,000.00		
																																																																															$ 365,000.00	$ 4,866.67
Lawes St	Steel/Concrete	1955	$ 119,880.00																																																																									$ -		
Replacement	$119,880.00																																																																													
Paint	$15,000.00			I										I										I										I										I										I										I										I				$ 120,000.00		
Guardrail Replacement	$20,000.00																				I																				I																				I																			$ 60,000.00		
Scour Protection	$20,000.00				I																											I																									I																									$ 60,000.00		
Deck/Approach Rehab	$20,000.00						I																				I																				I																				I													$ 80,000.00		
Bearing Replacement	$15,000.00					I																																								I																																			$ 30,000.00		
Structural Element Refub	$20,000.00							I																																														I																								$ 40,000.00		
Spalled Concrete	$25,000.00								I																															I																													I											$ 75,000.00		
																																																																															$ 465,000.00	$ 6,200.00
Hillsborough	Concrete	1980	$ 175,680.00																																																																										$ -		
Replacement	$219,600.00																																																																													
Paint Handrail	$2,500.00			I										I										I										I										I										I										I										I				$ 20,000.00		
Guardrail Replacement	$20,000.00					I																					I																				I																				I														$ 80,000.00		
Scour Protection	$20,000.00						I																										I																									I																								$ 60,000.00		
Deck/Approach Rehab	$20,000.00					I																					I																				I																				I														$ 80,000.00		
Bearing Replacement	$15,000.00					I																																								I																																			$ 30,000.00		
Structural Element Refub	$20,000.00						I																																															I																									$ 40,000.00		
Spalled Concrete	$25,000.00						I																														I																													I													$ 75,000.00		
																																																																														$ 385,000.00	$ 5,133.33
Yarrabong Bridge	Concrete	1943	$ 406,260.00																																																																										$ -		
Replacement	$1,332,000.00																					I																																																														
Guardrail Replacement	$30,000.00																																										I																				I																		$ 60,000.00		
Scour Protection	$25,000.00																																															I																									I						$ 50,000.00		
Deck/Approach Rehab	$20,000.00																																										I																				I																		$ 40,000.00		
Bearing Replacement	$50,000.00																																																																I																		$ 50,000.00		
Structural Element Refub	$50,000.00																																																																										I						$ 50,000.00		
Spalled Concrete	$50,000.00																																																																I																		$ 50,000.00		
																																																																															$ 300,000.00	$ 4,000.00
Farley Bridge	Concrete	1970	$ 466,470.00																																																																										$ -		
Replacement	$466,470.00																																																																													
Guardrail Replacement	$30,000.00																						I																			I																				I																		$ 90,000.00		

Scour Protection	$25,000.00																									1																									1																									1		$ 75,000.00		
Deck/Approach Rehab	$20,000.00							1																				1																				1																				1										$ 80,000.00		
Bearing Replacement	$50,000.00								1																																								1																														$ 100,000.00		
Structural Element Refub	$50,000.00								1																																																		1																				$ 100,000.00		
Spalled Concrete	$50,000.00							1																														1																														1										$ 150,000.00		
																																																																															$ 595,000.00	$ 7,933.33
Woodlands	Concrete	1997	$ 630,000.00																																																																											$ -		
Replacement	$630,000.00																																																																															
Paint	$5,000.00			1										1										1										1										1										1										1										1				$ 40,000.00		
Guardrail Replacement	$30,000.00				1																				1																				1																				1													$ 120,000.00		
Scour Protection	$25,000.00														1																									1																									1													$ 75,000.00		
Deck/Approach Rehab	$20,000.00									1																				1																				1																				1								$ 80,000.00		
Bearing Replacement	$50,000.00																													1																																								1								$ 100,000.00		
Structural Element Refub	$50,000.00																																							1																																						$ 50,000.00		
Spalled Concrete	$50,000.00			1																														1																														1														$ 150,000.00		
																																																																															$ 615,000.00	$ 8,200.00
Duckenfield 1	Concrete	2006	$ 186,240.00																																																																											$ -		
Replacement	$186,240.00																																																																															
Guardrail Replacement	$20,000.00																		1																				1																				1																			$ 60,000.00		
Scour Protection	$20,000.00																							1																									1																									1				$ 60,000.00		
Deck/Approach Rehab	$20,000.00																		1																				1																				1																			$ 60,000.00		
Bearing Replacement	$15,000.00																																						1																																							$ 15,000.00		
Structural Element Refub	$20,000.00																																																1																													$ 20,000.00		
Spalled Concrete	$25,000.00																												1																														1																			$ 50,000.00		
																																																																															$ 265,000.00	$ 3,533.33
Duckenfield 2	Concrete	2008	$ 321,300.00																																																																											$ -		
Replacement	$321,300.00																																																																															
Guardrail Replacement	$20,000.00																				1																				1																				1																	$ 60,000.00		
Scour Protection	$20,000.00																									1																									1																									1		$ 60,000.00		
Deck/Approach Rehab	$20,000.00																				1																				1																				1																	$ 60,000.00		
Bearing Replacement	$15,000.00																																								1																																					$ 15,000.00		
Structural Element Refub	$20,000.00																																																		1																											$ 20,000.00		
Spalled Concrete	$25,000.00																														1																														1																	$ 50,000.00		
																																																																															$ 265,000.00	$ 3,533.33
McFarlanes	Concrete	2002	$ 492,000.00																																																																											$ -		
Replacement	$492,000.00																																																																															
Guardrail Replacement	$20,000.00																1																				1																				1																				1	$ 80,000.00		
Scour Protection	$20,000.00																					1																									1																									1						$ 60,000.00		
Deck/Approach Rehab	$20,000.00																1																				1																				1																				1	$ 80,000.00		
Bearing Replacement	$15,000.00																																				1																																								1	$ 30,000.00		
Structural Element Refub	$20,000.00																																														1																															$ 20,000.00		
Spalled Concrete	$25,000.00																										1																														1																					$ 50,000.00		
																																																																															$ 320,000.00	$ 4,266.67
Campbells Bridge	Concrete New Bridge	2003	$ 225,000.00																																																																											$ -		
Replacement	$225,000.00																																																																															
Guardrail Replacement	$20,000.00															1																				1																				1																				1		$ 80,000.00		
Scour Protection	$20,000.00																				1																									1																									1							$ 60,000.00		
Deck/Approach Rehab	$20,000.00															1																				1																				1																				1		$ 80,000.00		
Bearing Replacement	$15,000.00																																			1																																								1		$ 30,000.00		
Structural Element Refub	$20,000.00																																													1																																$ 20,000.00		
Spalled Concrete	$25,000.00																									1																														1																						$ 50,000.00	$ 320,000.00	$ 4,266.67
				$282,500.00	$95,000.00	$175,000.00	$200,000.00	$115,000.00	$145,000.00	$50,000.00	$70,000.00	$1,298,000.00	$280,000.00	$117,500.00	$75,000.00	$40,000.00	$90,000.00	$0.00	$80,000.00	$0.00	$135,000.00	$1,392,000.00	$50,000.00	$152,500.00	$100,000.00	$110,000.00	$100,000.00	$220,000.00	$25,000.00	$120,000.00	$100,000.00	$661,600.00	$285,000.00	$187,500.00	$25,000.00	$100,000.00	$105,000.00	$50,000.00	$135,000.00	$135,000.00	$130,000.00	$1,589,000.00	$50,000.00	$132,500.00	$30,000.00	$160,000.00	$85,000.00	$20,000.00	$90,000.00	$40,000.00	$80,000.00	$1,093,600.00	$10,000.00	$117,500.00	$20,000.00	$65,000.00	$130,000.00	$45,000.00	$175,000.00	$0.00	$105,000.00	$275,000.00	$570,000.00	$157,500.00	$130,000.00	$75,000.00	$65,000.00	$270,000.00	$25,000.00	$90,000.00	$20,000.00	$410,000.00	$10,000.00	$137,500.00	$0.00	$100,000.00	$135,000.00			$ 114,200.00

Suburb	Location	Year Constructed	Expected Remaining Life as at 2009	Replacement Cost	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Hillsborough	Hillsborough Road, 0.2 km south of Maitland Vale Road	1980	53	$ 175,680.00	$ 91,353.60	$ 89,596.80	$ 87,840.00	$ 86,083.20	$ 84,326.40	$ 82,569.60	$ 80,812.80	$ 79,056.00	$ 77,299.20	$ 75,542.40	$ 73,785.60	$ 72,028.80	$ 70,272.00	$ 68,515.20	$ 66,758.40	$ 65,001.60	$ 63,244.80	$ 61,488.00	$ 59,731.20	$ 57,974.40	$ 56,217.60	$ 54,460.80	$ 52,704.00	$ 50,947.20	$ 49,190.40
Aberglasslyn	Melville Ford Road at Hunter River	1946	19	$ 1,035,000.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00
Rutherford	Wollombi Road	1970	43	$ 466,470.00	$ 195,917.40	$ 191,252.70	$ 186,588.00	$ 181,923.30	$ 177,258.60	$ 172,593.90	$ 167,929.20	$ 163,264.50	$ 158,599.80	$ 153,935.10	$ 149,270.40	$ 144,605.70	$ 139,941.00	$ 135,276.30	$ 130,611.60	$ 125,946.90	$ 121,282.20	$ 116,617.50	$ 116,617.50	$ 116,617.50	$ 116,617.50	$ 116,617.50	$ 116,617.50	$ 116,617.50	$ 116,617.50
Maitland	Mt Dee Road at Fishery Creek	1927	0	$ 591,600.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00
Maitland	Dagworth Road	1930	3	$ 318,000.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00
Maitland	High Street at Wallis Creek	1896	-31	$ 903,600.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00
Maitland	High Street	1934	7	$ 9,051,300.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00
Bishops Bridge	Wollombi Road	1970	43	$ 586,500.00	$ 246,330.00	$ 240,465.00	$ 234,600.00	$ 228,735.00	$ 222,870.00	$ 217,005.00	$ 211,140.00	$ 205,275.00	$ 199,410.00	$ 193,545.00	$ 187,680.00	$ 181,815.00	$ 175,950.00	$ 170,085.00	$ 164,220.00	$ 158,355.00	$ 152,490.00	$ 146,625.00	$ 146,625.00	$ 146,625.00	$ 146,625.00	$ 146,625.00	$ 146,625.00	$ 146,625.00	$ 146,625.00
Louth Park	Louth Park Road at Wallis Creek	1943	16	$ 406,260.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00
East Maitland	Trappaud Road at Wallis Creek	1930	3	$ 251,625.00	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25
East Maitland	Lawes Street, near Quarry Street	1955	28	$ 119,880.00	$ 32,367.60	$ 31,168.80	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00
Ashtonfield	Old New England Hwy at Four Mile Creek	1930	3	$ 525,000.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00
Thornton	Woodlands Drive	1997	70	$ 630,000.00	$ 434,700.00	$ 428,400.00	$ 422,100.00	$ 415,800.00	$ 409,500.00	$ 403,200.00	$ 396,900.00	$ 390,600.00	$ 384,300.00	$ 378,000.00	$ 371,700.00	$ 365,400.00	$ 359,100.00	$ 352,800.00	$ 346,500.00	$ 340,200.00	$ 333,900.00	$ 327,600.00	$ 321,300.00	$ 315,000.00	$ 308,700.00	$ 302,400.00	$ 296,100.00	$ 289,800.00	$ 283,500.00
Woodberry	Woodberry Road at Greenways Creek	1974	47	$ 349,350.00	$ 160,701.00	$ 157,207.50	$ 153,714.00	$ 150,220.50	$ 146,727.00	$ 143,233.50	$ 139,740.00	$ 136,246.50	$ 132,753.00	$ 129,259.50	$ 125,766.00	$ 122,272.50	$ 118,779.00	$ 115,285.50	$ 111,792.00	$ 108,298.50	$ 104,805.00	$ 101,311.50	$ 97,818.00	$ 94,324.50	$ 90,831.00	$ 87,337.50	$ 87,337.50	$ 87,337.50	$ 87,337.50
Berry Park	Duckenfield Road, 1.1 km east of Morpeth	2006	79	$ 186,240.00	$ 145,267.20	$ 143,404.80	$ 141,542.40	$ 139,680.00	$ 137,817.60	$ 135,955.20	$ 134,092.80	$ 132,230.40	$ 130,368.00	$ 128,505.60	$ 126,643.20	$ 124,780.80	$ 122,918.40	$ 121,056.00	$ 119,193.60	$ 117,331.20	$ 115,468.80	$ 113,606.40	$ 111,744.00	$ 109,881.60	$ 108,019.20	$ 106,156.80	$ 104,294.40	$ 102,432.00	$ 100,569.60
Berry Park	Duckenfield Road, 3.4 km east of Morpeth	2008	81	$ 321,300.00	$ 257,040.00	$ 253,827.00	$ 250,614.00	$ 247,401.00	$ 244,188.00	$ 240,975.00	$ 237,762.00	$ 234,549.00	$ 231,336.00	$ 228,123.00	$ 224,910.00	$ 221,697.00	$ 218,484.00	$ 215,271.00	$ 212,058.00	$ 208,845.00	$ 205,632.00	$ 202,419.00	$ 199,206.00	$ 195,993.00	$ 192,780.00	$ 189,567.00	$ 186,354.00	$ 183,141.00	$ 179,928.00
Berry Park	McFarlanes Road	2002	75	$ 492,000.00	$ 364,080.00	$ 359,160.00	$ 354,240.00	$ 349,320.00	$ 344,400.00	$ 339,480.00	$ 334,560.00	$ 329,640.00	$ 324,720.00	$ 319,800.00	$ 314,880.00	$ 309,960.00	$ 305,040.00	$ 300,120.00	$ 295,200.00	$ 290,280.00	$ 285,360.00	$ 280,440.00	$ 275,520.00	$ 270,600.00	$ 265,680.00	$ 260,760.00	$ 255,840.00	$ 250,920.00	$ 246,000.00
Maitland Vale	Maitland Vale Road, corner Campbells Road	2003	76	$ 225,000.00	$ 168,750.00	$ 166,500.00	$ 164,250.00	$ 162,000.00	$ 159,750.00	$ 157,500.00	$ 155,250.00	$ 153,000.00	$ 150,750.00	$ 148,500.00	$ 146,250.00	$ 144,000.00	$ 141,750.00	$ 139,500.00	$ 137,250.00	$ 135,000.00	$ 132,750.00	$ 130,500.00	$ 128,250.00	$ 126,000.00	$ 123,750.00	$ 121,500.00	$ 119,250.00	$ 117,000.00	$ 114,750.00
				$ 16,634,805.00	$ 5,367,103.05	$ 5,331,578.85	$ 5,296,054.65	$ 5,261,729.25	$ 5,227,403.85	$ 5,193,078.45	$ 5,158,753.05	$ 5,124,427.65	$ 5,090,102.25	$ 5,055,776.85	$ 5,021,451.45	$ 4,987,126.05	$ 4,952,800.65	$ 4,918,475.25	$ 4,884,149.85	$ 4,849,824.45	$ 4,815,499.05	$ 4,781,173.65	$ 4,757,377.95	$ 4,733,582.25	$ 4,709,786.55	$ 4,685,990.85	$ 4,665,688.65	$ 4,645,386.45	$ 4,625,084.25
Lochinvar	Windermere Road at Lochinvar Creek	1967	40	$ 73,440.00	$ 28,641.60	$ 27,907.20	$ 27,172.80	$ 26,438.40	$ 25,704.00	$ 24,969.60	$ 24,235.20	$ 23,500.80	$ 22,766.40	$ 22,032.00	$ 21,297.60	$ 20,563.20	$ 19,828.80	$ 19,094.40	$ 18,360.00	$ 18,360.00	$ 18,360.00	$ 18,360.00	$ 18,360.00	$ 18,360.00	$ 18,360.00	$ 18,360.00	$ 18,360.00	$ 18,360.00	$ 18,360.00
Lochinvar	Luskintyre Road, 1.2km west of Windemere Road	1980	53	$ 84,000.00	$ 43,680.00	$ 42,840.00	$ 42,000.00	$ 41,160.00	$ 40,320.00	$ 39,480.00	$ 38,640.00	$ 37,800.00	$ 36,960.00	$ 36,120.00	$ 35,280.00	$ 34,440.00	$ 33,600.00	$ 32,760.00	$ 31,920.00	$ 31,080.00	$ 30,240.00	$ 29,400.00	$ 28,560.00	$ 27,720.00	$ 26,880.00	$ 26,040.00	$ 25,200.00	$ 24,360.00	$ 23,520.00
Hillsborough	Maitland Vale Road, 0.5 km west of Hillsborough Road	1967	40	$ 118,080.00	$ 46,051.20	$ 44,870.40	$ 43,689.60	$ 42,508.80	$ 41,328.00	$ 40,147.20	$ 38,966.40	$ 37,785.60	$ 36,604.80	$ 35,424.00	$ 34,243.20	$ 33,062.40	$ 31,881.60	$ 30,700.80	$ 29,520.00	$ 29,520.00	$ 29,520.00	$ 29,520.00	$ 29,520.00	$ 29,520.00	$ 29,520.00	$ 29,520.00	$ 29,520.00	$ 29,520.00	$ 29,520.00
Hillsborough	Maitland Vale Road, 1.0 km east of Hillsborough Road	1967	40	$ 340,000.00	$ 132,600.00	$ 129,200.00	$ 125,800.00	$ 122,400.00	$ 119,000.00	$ 115,600.00	$ 112,200.00	$ 108,800.00	$ 105,400.00	$ 102,000.00	$ 98,600.00	$ 95,200.00	$ 91,800.00	$ 88,400.00	$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00
Rosebrook	Maitland Vale Road, 2.1km West of Melville Ford Road	1980	53	$ 126,000.00	$ 65,520.00	$ 64,260.00	$ 63,000.00	$ 61,740.00	$ 60,480.00	$ 59,220.00	$ 57,960.00	$ 56,700.00	$ 55,440.00	$ 54,180.00	$ 52,920.00	$ 51,660.00	$ 50,400.00	$ 49,140.00	$ 47,880.00	$ 46,620.00	$ 45,360.00	$ 44,100.00	$ 42,840.00	$ 41,580.00	$ 40,320.00	$ 39,060.00	$ 37,800.00	$ 36,540.00	$ 35,280.00
Anambah	Anambah Road, 2.5 km north of SH9	1987	60	$ 252,000.00	$ 148,680.00	$ 146,160.00	$ 143,640.00	$ 141,120.00	$ 138,600.00	$ 136,080.00	$ 133,560.00	$ 131,040.00	$ 128,520.00	$ 126,000.00	$ 123,480.00	$ 120,960.00	$ 118,440.00	$ 115,920.00	$ 113,400.00	$ 110,880.00	$ 108,360.00	$ 105,840.00	$ 103,320.00	$ 100,800.00	$ 98,280.00	$ 95,760.00	$ 93,240.00	$ 90,720.00	$ 88,200.00
Anambah	Anambah Road, 3.94 km north of SH9	1986	59	$ 440,000.00	$ 255,200.00	$ 250,800.00	$ 246,400.00	$ 242,000.00	$ 237,600.00	$ 233,200.00	$ 228,800.00	$ 224,400.00	$ 220,000.00	$ 215,600.00	$ 211,200.00	$ 206,800.00	$ 202,400.00	$ 198,000.00	$ 193,600.00	$ 189,200.00	$ 184,800.00	$ 180,400.00	$ 176,000.00	$ 171,600.00	$ 167,200.00	$ 162,800.00	$ 158,400.00	$ 154,000.00	$ 149,600.00
Aberglasslyn	Bingara Street	2003	76	$ 600,000.00	$ 450,000.00	$ 444,000.00	$ 438,000.00	$ 432,000.00	$ 426,000.00	$ 420,000.00	$ 414,000.00	$ 408,000.00	$ 402,000.00	$ 396,000.00	$ 390,000.00	$ 384,000.00	$ 378,000.00	$ 372,000.00	$ 366,000.00	$ 360,000.00	$ 354,000.00	$ 348,000.00	$ 342,000.00	$ 336,000.00	$ 330,000.00	$ 324,000.00	$ 318,000.00	$ 312,000.00	$ 306,000.00
Rutherford	Racecourse Road just South of McKay Close	1980	53	$ 295,200.00	$ 153,504.00	$ 150,552.00	$ 147,600.00	$ 144,648.00	$ 141,696.00	$ 138,744.00	$ 135,792.00	$ 132,840.00	$ 129,888.00	$ 126,936.00	$ 123,984.00	$ 121,032.00	$ 118,080.00	$ 115,128.00	$ 112,176.00	$ 109,224.00	$ 106,272.00	$ 103,320.00	$ 100,368.00	$ 97,416.00	$ 94,464.00	$ 91,512.00	$ 88,560.00	$ 85,608.00	$ 82,656.00
Rutherford	Racecourse Road just near Golf Course	1997	70	$ 364,000.00	$ 251,160.00	$ 247,520.00	$ 243,880.00	$ 240,240.00	$ 236,600.00	$ 232,960.00	$ 229,320.00	$ 225,680.00	$ 222,040.00	$ 218,400.00	$ 214,760.00	$ 211,120.00	$ 207,480.00	$ 203,840.00	$ 200,200.00	$ 196,560.00	$ 192,920.00	$ 189,280.00	$ 185,640.00	$ 182,000.00	$ 178,360.00	$ 174,720.00	$ 171,080.00	$ 167,440.00	$ 163,800.00
Telarah	Bungaree Street	1951	24	$ 285,000.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00
Telarah	Bungaree Street Cycleway	1951	24	$ 86,400.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00
Farley	Wollombi Road	1970	43	$ 361,000.00	$ 151,620.00	$ 148,010.00	$ 144,400.00	$ 140,790.00	$ 137,180.00	$ 133,570.00	$ 129,960.00	$ 126,350.00	$ 122,740.00	$ 119,130.00	$ 115,520.00	$ 111,910.00	$ 108,300.00	$ 104,690.00	$ 101,080.00	$ 97,470.00	$ 93,860.00	$ 90,250.00	$ 90,250.00	$ 90,250.00	$ 90,250.00	$ 90,250.00	$ 90,250.00	$ 90,250.00	$ 90,250.00
Gillieston Heights	Spring St	2007	80	$ 370,440.00	$ 292,647.60	$ 288,943.20	$ 285,238.80	$ 281,534.40	$ 277,830.00	$ 274,125.60	$ 270,421.20	$ 266,716.80	$ 263,012.40	$ 259,308.00	$ 255,603.60	$ 251,899.20	$ 248,194.80	$ 244,490.40	$ 240,786.00	$ 237,081.60	$ 233,377.20	$ 229,672.80	$ 225,968.40	$ 222,264.00	$ 218,559.60	$ 214,855.20	$ 211,150.80	$ 207,446.40	$ 203,742.00
East Maitland	Day Street	1973	46	$ 525,000.00	$ 236,250.00	$ 231,000.00	$ 225,750.00	$ 220,500.00	$ 215,250.00	$ 210,000.00	$ 204,750.00	$ 199,500.00	$ 194,250.00	$ 189,000.00	$ 183,750.00	$ 178,500.00	$ 173,250.00	$ 168,000.00	$ 162,750.00	$ 157,500.00	$ 152,250.00	$ 147,000.00	$ 141,750.00	$ 136,500.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00
East Maitland	Metford Road, near Golf Course	1979	52	$ 323,200.00	$ 164,832.00	$ 161,600.00	$ 158,368.00	$ 155,136.00	$ 151,904.00	$ 148,672.00	$ 145,440.00	$ 142,208.00	$ 138,976.00	$ 135,744.00	$ 132,512.00	$ 129,280.00	$ 126,048.00	$ 122,816.00	$ 119,584.00	$ 116,352.00	$ 113,120.00	$ 109,888.00	$ 106,656.00	$ 103,424.00	$ 100,192.00	$ 96,960.00	$ 93,728.00	$ 90,496.00	$ 87,264.00
Metford	Schank Drive at Reserve	1982	55	$ 672,000.00	$ 362,880.00	$ 356,160.00	$ 349,440.00	$ 342,720.00	$ 336,000.00	$ 329,280.00	$ 322,560.00	$ 315,840.00	$ 309,120.00	$ 302,400.00	$ 295,680.00	$ 288,960.00	$ 282,240.00	$ 275,520.00	$ 268,800.00	$ 262,080.00	$ 255,360.00	$ 248,640.00	$ 241,920.00	$ 235,200.00	$ 228,480.00	$ 221,760.00	$ 215,040.00	$ 208,320.00	$ 201,600.00
Metford	Turton Street	1976	49	$ 704,000.00	$ 337,920.00	$ 330,880.00	$ 323,840.00	$ 316,800.00	$ 309,760.00	$ 302,720.00	$ 295,680.00	$ 288,640.00	$ 281,600.00	$ 274,560.00	$ 267,520.00	$ 260,480.00	$ 253,440.00	$ 246,400.00	$ 239,360.00	$ 232,320.00	$ 225,280.00	$ 218,240.00	$ 211,200.00	$ 204,160.00	$ 197,120.00	$ 190,080.00	$ 183,040.00	$ 176,000.00	$ 176,000.00
Metford	Fieldsend Street	1973	46	$ 102,000.00	$ 45,900.00	$ 44,880.00	$ 43,860.00	$ 42,840.00	$ 41,820.00	$ 40,800.00	$ 39,780.00	$ 38,760.00	$ 37,740.00	$ 36,720.00	$ 35,700.00	$ 34,680.00	$ 33,660.00	$ 32,640.00	$ 31,620.00	$ 30,600.00	$ 29,580.00	$ 28,560.00	$ 27,540.00	$ 26,520.00	$ 25,500.00	$ 25,500.00	$ 25,500.00	$ 25,500.00	$ 25,500.00
Metford	Schank Drive, near Primary School	2000	73	$ 372,000.00	$ 267,840.00	$ 264,120.00	$ 260,400.00	$ 256,680.00	$ 252,960.00	$ 249,240.00	$ 245,520.00	$ 241,800.00	$ 238,080.00	$ 234,360.00	$ 230,640.00	$ 226,920.00	$ 223,200.00	$ 219,480.00	$ 215,760.00	$ 212,040.00	$ 208,320.00	$ 204,600.00	$ 200,880.00	$ 197,160.00	$ 193,440.00	$ 189,720.00	$ 186,000.00	$ 182,280.00	$ 178,560.00
Thornton	Government Road, 0.7 km south of Raymond Terrace Road	1992	65	$ 139,200.00	$ 89,088.00	$ 87,696.00	$ 86,304.00	$ 84,912.00	$ 83,520.00	$ 82,128.00	$ 80,736.00	$ 79,344.00	$ 77,952.00	$ 76,560.00	$ 75,168.00	$ 73,776.00	$ 72,384.00	$ 70,992.00	$ 69,600.00	$ 68,208.00	$ 66,816.00	$ 65,424.00	$ 64,032.00	$ 62,640.00	$ 61,248.00	$ 59,856.00	$ 58,464.00	$ 57,072.00	$ 55,680.00
Thornton	Glenwood Drive, 0.2 km east of Thornton Road	2003	76	$ 842,800.00	$ 632,100.00	$ 623,672.00	$ 615,244.00	$ 606,816.00	$ 598,388.00	$ 589,960.00	$ 581,532.00	$ 573,104.00	$ 564,676.00	$ 556,248.00	$ 547,820.00	$ 539,392.00	$ 530,964.00	$ 522,536.00	$ 514,108.00	$ 505,680.00	$ 497,252.00	$ 488,824.00	$ 480,396.00	$ 471,968.00	$ 463,540.00	$ 455,112.00	$ 446,684.00	$ 438,256.00	$ 429,828.00
Thornton	Glenwood Drive, 0.5km east of Thornton Road	2003	76	$ 638,400.00	$ 478,800.00	$ 472,416.00	$ 466,032.00	$ 459,648.00	$ 453,264.00	$ 446,880.00	$ 440,496.00	$ 434,112.00	$ 427,728.00	$ 421,344.00	$ 414,960.00	$ 408,576.00	$ 402,192.00	$ 395,808.00	$ 389,424.00	$ 383,040.00	$ 376,656.00	$ 370,272.00	$ 363,888.00	$ 357,504.00	$ 351,120.00	$ 344,736.00	$ 338,352.00	$ 331,968.00	$ 325,584.00
Thornton	Thornton Rd - 250m South of Railway Bridge	1981	54	$ 316,800.00	$ 167,904.00	$ 164,736.00	$ 161,568.00	$ 158,400.00	$ 155,232.00	$ 152,064.00	$ 148,896.00	$ 145,728.00	$ 142,560.00	$ 139,392.00	$ 136,224.00	$ 133,056.00	$ 129,888.00	$ 126,720.00	$ 123,552.00	$ 120,384.00	$ 117,216.00	$ 114,048.00	$ 110,880.00	$ 107,712.00	$ 104,544.00	$ 101,376.00	$ 98,208.00	$ 95,040.00	$ 91,872.00
Millers Forest	Woodberry Road	1970	43	$ 211,200.00	$ 88,704.00	$ 86,592.00	$ 84,480.00	$ 82,368.00	$ 80,256.00	$ 78,144.00	$ 76,032.00	$ 73,920.00	$ 71,808.00	$ 69,696.00	$ 67,584.00	$ 65,472.00	$ 63,360.00	$ 61,248.00	$ 59,136.00	$ 57,024.00	$ 54,912.00	$ 52,800.00	$ 52,800.00	$ 52,800.00	$ 52,800.00	$ 52,800.00	$ 52,800.00	$ 52,800.00	$ 52,800.00
Berry Park	Duckenfield Road, 1.7 km east of Morpeth	1957	30	$ 169,320.00	$ 49,102.80	$ 47,409.60	$ 45,716.40	$ 44,023.20	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00
Bolwarra Heights	Hunterglenn Drive	2001	74	$ 392,600.00	$ 286,598.00	$ 282,672.00	$ 278,746.00	$ 274,820.00	$ 270,894.00	$ 266,968.00	$ 263,042.00	$ 259,116.00	$ 255,190.00	$ 251,264.00	$ 247,338.00	$ 243,412.00	$ 239,486.00	$ 235,560.00	$ 231,634.00	$ 227,708.00	$ 223,782.00	$ 219,856.00	$ 215,930.00	$ 212,004.00	$ 208,078.00	$ 204,152.00	$ 200,226.00	$ 196,300.00	$ 192,374.00
				$ 9,204,080.00	$ 5,320,073.20	$ 5,231,746.40	$ 5,143,419.60	$ 5,055,092.80	$ 4,966,766.00	$ 4,880,132.40	$ 4,793,498.80	$ 4,706,865.20	$ 4,620,231.60	$ 4,533,598.00	$ 4,446,964.40	$ 4,360,330.80	$ 4,273,697.20	$ 4,187,063.60	$ 4,100,430.00	$ 4,019,111.60	$ 3,937,793.20	$ 3,856,474.80	$ 3,780,878.40	$ 3,705,282.00	$ 3,629,685.60	$ 3,560,359.20	$ 3,491,032.80	$ 3,421,706.40	$ 3,359,420.00

TOTAL VALUE				$ 25,838,885.00	$ 10,687,176.25	$ 10,563,325.25	$ 10,439,474.25	$ 10,316,822.05	$ 10,194,169.85	$ 10,073,210.85	$ 9,952,251.85	$ 9,831,292.85	$ 9,710,333.85	$ 9,589,374.85	$ 9,468,415.85	$ 9,347,456.85	$ 9,226,497.85	$ 9,105,538.85	$ 8,984,579.85	$ 8,868,936.05	$ 8,753,292.25	$ 8,637,648.45	$ 8,538,256.35	$ 8,438,864.25	$ 8,339,472.15	$ 8,246,350.05	$ 8,156,721.45	$ 8,067,092.85	$ 7,984,504.25
CAPITAL EXPENDITURE ANNUALLY					$ 282,500.00	$ 95,000.00	$ 175,000.00	$ 200,000.00	$ 115,000.00	$ 145,000.00	$ 50,000.00	$ 70,000.00	$ 1,298,000.00	$ 280,000.00	$ 117,500.00	$ 75,000.00	$ 40,000.00	$ 90,000.00	$ -	$ 80,000.00	$ -	$ 135,000.00	$ 1,392,000.00	$ 50,000.00	$ 152,500.00	$ 100,000.00	$ 110,000.00	$ 100,000.00	$ 220,000.00
						$ 373,714.50	$ 543,706.73	$ 736,421.06	$ 841,553.01	$ 975,276.20	$ 1,012,207.50	$ 1,068,643.92	$ 2,352,324.09	$ 2,600,802.95	$ 2,683,452.19	$ 2,722,493.93	$ 2,726,012.51	$ 2,779,483.94	$ 2,742,238.86	$ 2,785,492.86	$ 2,748,167.25	$ 2,846,341.81	$ 4,200,200.83	$ 4,193,918.14	$ 4,290,219.64	$ 4,332,730.70	$ 4,384,672.10	$ 4,425,917.50	$ 4,586,610.20
ACCUMULATION OF CAPITAL					$ 10,687,176.25	$ 10,937,039.75	$ 10,983,180.98	$ 11,053,243.11	$ 11,035,722.86	$ 11,048,487.05	$ 10,964,459.35	$ 10,899,936.77	$ 12,062,657.94	$ 12,190,177.80	$ 12,151,868.04	$ 12,069,950.78	$ 11,952,510.36	$ 11,885,022.79	$ 11,726,818.71	$ 11,654,428.91	$ 11,501,459.50	$ 11,483,990.26	$ 12,738,457.18	$ 12,632,782.39	$ 12,629,691.79	$ 12,579,080.75	$ 12,541,393.55	$ 12,493,010.35	$ 12,571,114.45
TOTAL						$ 123,851.00	$ 123,851.00	$ 122,652.20	$ 122,652.20	$ 120,959.00	$ 120,959.00	$ 120,959.00	$ 120,959.00	$ 120,959.00	$ 120,959.00															

2035	2036	2037	2038	2039	2040	2041	2042	2043	2044
$ 47,433.60	$ 45,676.80	$ 43,920.00	$ 43,920.00	$ 43,920.00	$ 43,920.00	$ 43,920.00	$ 43,920.00	$ 43,920.00	$ 43,920.00
$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00
$ 116,617.50	$ 116,617.50	$ 116,617.50	$ 116,617.50	$ 116,617.50	$ 116,617.50	$ 116,617.50	$ 116,617.50	$ 116,617.50	$ 116,617.50
$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00
$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00
$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00
$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00
$ 146,625.00	$ 146,625.00	$ 146,625.00	$ 146,625.00	$ 146,625.00	$ 146,625.00	$ 146,625.00	$ 146,625.00	$ 146,625.00	$ 146,625.00
$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00
$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25
$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00
$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00
$ 277,200.00	$ 270,900.00	$ 264,600.00	$ 258,300.00	$ 252,000.00	$ 245,700.00	$ 239,400.00	$ 233,100.00	$ 226,800.00	$ 220,500.00
$ 87,337.50	$ 87,337.50	$ 87,337.50	$ 87,337.50	$ 87,337.50	$ 87,337.50	$ 87,337.50	$ 87,337.50	$ 87,337.50	$ 87,337.50
$ 98,707.20	$ 96,844.80	$ 94,982.40	$ 93,120.00	$ 91,257.60	$ 89,395.20	$ 87,532.80	$ 85,670.40	$ 83,808.00	$ 81,945.60
$ 176,715.00	$ 173,502.00	$ 170,289.00	$ 167,076.00	$ 163,863.00	$ 160,650.00	$ 157,437.00	$ 154,224.00	$ 151,011.00	$ 147,798.00
$ 241,080.00	$ 236,160.00	$ 231,240.00	$ 226,320.00	$ 221,400.00	$ 216,480.00	$ 211,560.00	$ 206,640.00	$ 201,720.00	$ 196,800.00
$ 112,500.00	$ 110,250.00	$ 108,000.00	$ 105,750.00	$ 103,500.00	$ 101,250.00	$ 99,000.00	$ 96,750.00	$ 94,500.00	$ 92,250.00
$ 4,604,782.05	$ 4,584,479.85	$ 4,564,177.65	$ 4,545,632.25	$ 4,527,086.85	$ 4,508,541.45	$ 4,489,996.05	$ 4,471,450.65	$ 4,452,905.25	$ 4,434,359.85
$ 18,360.00	$ 18,360.00	$ 18,360.00	$ 18,360.00	$ 18,360.00	$ 18,360.00	$ 18,360.00	$ 18,360.00	$ 18,360.00	$ 18,360.00
$ 22,680.00	$ 21,840.00	$ 21,000.00	$ 21,000.00	$ 21,000.00	$ 21,000.00	$ 21,000.00	$ 21,000.00	$ 21,000.00	$ 21,000.00
$ 29,520.00	$ 29,520.00	$ 29,520.00	$ 29,520.00	$ 29,520.00	$ 29,520.00	$ 29,520.00	$ 29,520.00	$ 29,520.00	$ 29,520.00
$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00
$ 34,020.00	$ 32,760.00	$ 31,500.00	$ 31,500.00	$ 31,500.00	$ 31,500.00	$ 31,500.00	$ 31,500.00	$ 31,500.00	$ 31,500.00
$ 85,680.00	$ 83,160.00	$ 80,640.00	$ 78,120.00	$ 75,600.00	$ 73,080.00	$ 70,560.00	$ 68,040.00	$ 65,520.00	$ 63,000.00
$ 145,200.00	$ 140,800.00	$ 136,400.00	$ 132,000.00	$ 127,600.00	$ 123,200.00	$ 118,800.00	$ 114,400.00	$ 110,000.00	$ 110,000.00
$ 300,000.00	$ 294,000.00	$ 288,000.00	$ 282,000.00	$ 276,000.00	$ 270,000.00	$ 264,000.00	$ 258,000.00	$ 252,000.00	$ 246,000.00
$ 79,704.00	$ 76,752.00	$ 73,800.00	$ 73,800.00	$ 73,800.00	$ 73,800.00	$ 73,800.00	$ 73,800.00	$ 73,800.00	$ 73,800.00
$ 160,160.00	$ 156,520.00	$ 152,880.00	$ 149,240.00	$ 145,600.00	$ 141,960.00	$ 138,320.00	$ 134,680.00	$ 131,040.00	$ 127,400.00
$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00
$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00
$ 90,250.00	$ 90,250.00	$ 90,250.00	$ 90,250.00	$ 90,250.00	$ 90,250.00	$ 90,250.00	$ 90,250.00	$ 90,250.00	$ 90,250.00
$ 200,037.60	$ 196,333.20	$ 192,628.80	$ 188,924.40	$ 185,220.00	$ 181,515.60	$ 177,811.20	$ 174,106.80	$ 170,402.40	$ 166,698.00
$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00
$ 84,032.00	$ 80,800.00	$ 80,800.00	$ 80,800.00	$ 80,800.00	$ 80,800.00	$ 80,800.00	$ 80,800.00	$ 80,800.00	$ 80,800.00
$ 194,880.00	$ 188,160.00	$ 181,440.00	$ 174,720.00	$ 168,000.00	$ 168,000.00	$ 168,000.00	$ 168,000.00	$ 168,000.00	$ 168,000.00
$ 176,000.00	$ 176,000.00	$ 176,000.00	$ 176,000.00	$ 176,000.00	$ 176,000.00	$ 176,000.00	$ 176,000.00	$ 176,000.00	$ 176,000.00
$ 25,500.00	$ 25,500.00	$ 25,500.00	$ 25,500.00	$ 25,500.00	$ 25,500.00	$ 25,500.00	$ 25,500.00	$ 25,500.00	$ 25,500.00
$ 174,840.00	$ 171,120.00	$ 167,400.00	$ 163,680.00	$ 159,960.00	$ 156,240.00	$ 152,520.00	$ 148,800.00	$ 145,080.00	$ 141,360.00
$ 54,288.00	$ 52,896.00	$ 51,504.00	$ 50,112.00	$ 48,720.00	$ 47,328.00	$ 45,936.00	$ 44,544.00	$ 43,152.00	$ 41,760.00
$ 421,400.00	$ 412,972.00	$ 404,544.00	$ 396,116.00	$ 387,688.00	$ 379,260.00	$ 370,832.00	$ 362,404.00	$ 353,976.00	$ 345,548.00
$ 319,200.00	$ 312,816.00	$ 306,432.00	$ 300,048.00	$ 293,664.00	$ 287,280.00	$ 280,896.00	$ 274,512.00	$ 268,128.00	$ 261,744.00
$ 88,704.00	$ 85,536.00	$ 82,368.00	$ 79,200.00	$ 79,200.00	$ 79,200.00	$ 79,200.00	$ 79,200.00	$ 79,200.00	$ 79,200.00
$ 52,800.00	$ 52,800.00	$ 52,800.00	$ 52,800.00	$ 52,800.00	$ 52,800.00	$ 52,800.00	$ 52,800.00	$ 52,800.00	$ 52,800.00
$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00
$ 188,448.00	$ 184,522.00	$ 180,596.00	$ 176,670.00	$ 172,744.00	$ 168,818.00	$ 164,892.00	$ 160,966.00	$ 157,040.00	$ 153,114.00
$ 3,297,133.60	$ 3,234,847.20	$ 3,175,792.80	$ 3,121,790.40	$ 3,070,956.00	$ 3,026,841.60	$ 2,982,727.20	$ 2,938,612.80	$ 2,894,498.40	$ 2,854,784.00
$ 7,901,915.65	$ 7,819,327.05	$ 7,739,970.45	$ 7,667,422.65	$ 7,598,042.85	$ 7,535,383.05	$ 7,472,723.25	$ 7,410,063.45	$ 7,347,403.65	$ 7,289,143.85
$ 25,000.00	$ 120,000.00	$ 100,000.00	$ 661,600.00	$ 285,000.00	$ 187,500.00	$ 25,000.00	$ 100,000.00	$ 105,000.00	$ 50,000.00
$ 4,550,149.63	$ 4,609,177.62	$ 4,647,414.64	$ 5,246,739.29	$ 5,461,432.98	$ 5,575,749.78	$ 5,526,034.73	$ 5,551,985.87	$ 5,582,589.25	$ 5,557,782.56
$ 12,452,065.28	$ 12,428,504.67	$ 12,387,385.09	$ 12,914,161.94	$ 13,059,475.83	$ 13,111,132.83	$ 12,998,757.98	$ 12,962,049.32	$ 12,929,992.90	$ 12,846,926.41

2045	2046	2047	2048	2049	2050	2051	2052	2053	2054
$ 43,920.00	$ 43,920.00	$ 43,920.00	$ 43,920.00	$ 43,920.00	$ 43,920.00	$ 43,920.00	$ 43,920.00	$ 43,920.00	$ 43,920.00
$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00
$ 116,617.50	$ 116,617.50	$ 116,617.50	$ 116,617.50	$ 116,617.50	$ 116,617.50	$ 116,617.50	$ 116,617.50	$ 116,617.50	$ 116,617.50
$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00
$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00
$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00
$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00
$ 146,625.00	$ 146,625.00	$ 146,625.00	$ 146,625.00	$ 146,625.00	$ 146,625.00	$ 146,625.00	$ 146,625.00	$ 146,625.00	$ 146,625.00
$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00
$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25
$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00
$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00
$ 214,200.00	$ 207,900.00	$ 201,600.00	$ 195,300.00	$ 189,000.00	$ 182,700.00	$ 176,400.00	$ 170,100.00	$ 163,800.00	$ 157,500.00
$ 87,337.50	$ 87,337.50	$ 87,337.50	$ 87,337.50	$ 87,337.50	$ 87,337.50	$ 87,337.50	$ 87,337.50	$ 87,337.50	$ 87,337.50
$ 80,083.20	$ 78,220.80	$ 76,358.40	$ 74,496.00	$ 72,633.60	$ 70,771.20	$ 68,908.80	$ 67,046.40	$ 65,184.00	$ 63,321.60
$ 144,585.00	$ 141,372.00	$ 138,159.00	$ 134,946.00	$ 131,733.00	$ 128,520.00	$ 125,307.00	$ 122,094.00	$ 118,881.00	$ 115,668.00
$ 191,880.00	$ 186,960.00	$ 182,040.00	$ 177,120.00	$ 172,200.00	$ 167,280.00	$ 162,360.00	$ 157,440.00	$ 152,520.00	$ 147,600.00
$ 90,000.00	$ 87,750.00	$ 85,500.00	$ 83,250.00	$ 81,000.00	$ 78,750.00	$ 76,500.00	$ 74,250.00	$ 72,000.00	$ 69,750.00
$ 4,415,814.45	$ 4,397,269.05	$ 4,378,723.65	$ 4,360,178.25	$ 4,341,632.85	$ 4,323,087.45	$ 4,304,542.05	$ 4,285,996.65	$ 4,267,451.25	$ 4,248,905.85
$ 18,360.00	$ 18,360.00	$ 18,360.00	$ 18,360.00	$ 18,360.00	$ 18,360.00	$ 18,360.00	$ 18,360.00	$ 18,360.00	$ 18,360.00
$ 21,000.00	$ 21,000.00	$ 21,000.00	$ 21,000.00	$ 21,000.00	$ 21,000.00	$ 21,000.00	$ 21,000.00	$ 21,000.00	$ 21,000.00
$ 29,520.00	$ 29,520.00	$ 29,520.00	$ 29,520.00	$ 29,520.00	$ 29,520.00	$ 29,520.00	$ 29,520.00	$ 29,520.00	$ 29,520.00
$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00
$ 31,500.00	$ 31,500.00	$ 31,500.00	$ 31,500.00	$ 31,500.00	$ 31,500.00	$ 31,500.00	$ 31,500.00	$ 31,500.00	$ 31,500.00
$ 63,000.00	$ 63,000.00	$ 63,000.00	$ 63,000.00	$ 63,000.00	$ 63,000.00	$ 63,000.00	$ 63,000.00	$ 63,000.00	$ 63,000.00
$ 110,000.00	$ 110,000.00	$ 110,000.00	$ 110,000.00	$ 110,000.00	$ 110,000.00	$ 110,000.00	$ 110,000.00	$ 110,000.00	$ 110,000.00
$ 240,000.00	$ 234,000.00	$ 228,000.00	$ 222,000.00	$ 216,000.00	$ 210,000.00	$ 204,000.00	$ 198,000.00	$ 192,000.00	$ 186,000.00
$ 73,800.00	$ 73,800.00	$ 73,800.00	$ 73,800.00	$ 73,800.00	$ 73,800.00	$ 73,800.00	$ 73,800.00	$ 73,800.00	$ 73,800.00
$ 123,760.00	$ 120,120.00	$ 116,480.00	$ 112,840.00	$ 109,200.00	$ 105,560.00	$ 101,920.00	$ 98,280.00	$ 94,640.00	$ 91,000.00
$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00
$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00
$ 90,250.00	$ 90,250.00	$ 90,250.00	$ 90,250.00	$ 90,250.00	$ 90,250.00	$ 90,250.00	$ 90,250.00	$ 90,250.00	$ 90,250.00
$ 162,993.60	$ 159,289.20	$ 155,584.80	$ 151,880.40	$ 148,176.00	$ 144,471.60	$ 140,767.20	$ 137,062.80	$ 133,358.40	$ 129,654.00
$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00
$ 80,800.00	$ 80,800.00	$ 80,800.00	$ 80,800.00	$ 80,800.00	$ 80,800.00	$ 80,800.00	$ 80,800.00	$ 80,800.00	$ 80,800.00
$ 168,000.00	$ 168,000.00	$ 168,000.00	$ 168,000.00	$ 168,000.00	$ 168,000.00	$ 168,000.00	$ 168,000.00	$ 168,000.00	$ 168,000.00
$ 176,000.00	$ 176,000.00	$ 176,000.00	$ 176,000.00	$ 176,000.00	$ 176,000.00	$ 176,000.00	$ 176,000.00	$ 176,000.00	$ 176,000.00
$ 25,500.00	$ 25,500.00	$ 25,500.00	$ 25,500.00	$ 25,500.00	$ 25,500.00	$ 25,500.00	$ 25,500.00	$ 25,500.00	$ 25,500.00
$ 137,640.00	$ 133,920.00	$ 130,200.00	$ 126,480.00	$ 122,760.00	$ 119,040.00	$ 115,320.00	$ 111,600.00	$ 107,880.00	$ 104,160.00
$ 40,368.00	$ 38,976.00	$ 37,584.00	$ 36,192.00	$ 34,800.00	$ 34,800.00	$ 34,800.00	$ 34,800.00	$ 34,800.00	$ 34,800.00
$ 337,120.00	$ 328,692.00	$ 320,264.00	$ 311,836.00	$ 303,408.00	$ 294,980.00	$ 286,552.00	$ 278,124.00	$ 269,696.00	$ 261,268.00
$ 255,360.00	$ 248,976.00	$ 242,592.00	$ 236,208.00	$ 229,824.00	$ 223,440.00	$ 217,056.00	$ 210,672.00	$ 204,288.00	$ 197,904.00
$ 79,200.00	$ 79,200.00	$ 79,200.00	$ 79,200.00	$ 79,200.00	$ 79,200.00	$ 79,200.00	$ 79,200.00	$ 79,200.00	$ 79,200.00
$ 52,800.00	$ 52,800.00	$ 52,800.00	$ 52,800.00	$ 52,800.00	$ 52,800.00	$ 52,800.00	$ 52,800.00	$ 52,800.00	$ 52,800.00
$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00
$ 149,188.00	$ 145,262.00	$ 141,336.00	$ 137,410.00	$ 133,484.00	$ 129,558.00	$ 125,632.00	$ 121,706.00	$ 117,780.00	$ 113,854.00
$ 2,817,589.60	$ 2,780,395.20	$ 2,743,200.80	$ 2,706,006.40	$ 2,668,812.00	$ 2,633,009.60	$ 2,597,207.20	$ 2,561,404.80	$ 2,525,602.40	$ 2,489,800.00
$ 7,233,404.05	$ 7,177,664.25	$ 7,121,924.45	$ 7,066,184.65	$ 7,010,444.85	$ 6,956,097.05	$ 6,901,749.25	$ 6,847,401.45	$ 6,793,053.65	$ 6,738,705.85
$ 135,000.00	$ 135,000.00	$ 130,000.00	$ 1,589,000.00	$ 50,000.00	$ 132,500.00	$ 30,000.00	$ 160,000.00	$ 85,000.00	$ 20,000.00
$ 5,618,308.27	$ 5,678,022.94	$ 5,731,937.43	$ 7,244,129.47	$ 7,197,058.14	$ 7,233,117.56	$ 7,166,193.78	$ 7,230,166.79	$ 7,218,282.55	$ 7,141,557.57
$ 12,851,712.32	$ 12,855,687.19	$ 12,853,861.88	$ 14,310,314.12	$ 14,207,502.99	$ 14,189,214.61	$ 14,067,943.03	$ 14,077,568.24	$ 14,011,336.20	$ 13,880,263.42

2055	2056	2057	2058	2059	2060	2061	2062	2063	2064
$ 43,920.00	$ 43,920.00	$ 43,920.00	$ 43,920.00	$ 43,920.00	$ 43,920.00	$ 43,920.00	$ 43,920.00	$ 43,920.00	$ 43,920.00
$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00
$ 116,617.50	$ 116,617.50	$ 116,617.50	$ 116,617.50	$ 116,617.50	$ 116,617.50	$ 116,617.50	$ 116,617.50	$ 116,617.50	$ 116,617.50
$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00
$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00
$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00
$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00
$ 146,625.00	$ 146,625.00	$ 146,625.00	$ 146,625.00	$ 146,625.00	$ 146,625.00	$ 146,625.00	$ 146,625.00	$ 146,625.00	$ 146,625.00
$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00
$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25
$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00
$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00
$ 157,500.00	$ 157,500.00	$ 157,500.00	$ 157,500.00	$ 157,500.00	$ 157,500.00	$ 157,500.00	$ 157,500.00	$ 157,500.00	$ 157,500.00
$ 87,337.50	$ 87,337.50	$ 87,337.50	$ 87,337.50	$ 87,337.50	$ 87,337.50	$ 87,337.50	$ 87,337.50	$ 87,337.50	$ 87,337.50
$ 61,459.20	$ 59,596.80	$ 57,734.40	$ 55,872.00	$ 54,009.60	$ 52,147.20	$ 50,284.80	$ 48,422.40	$ 46,560.00	$ 46,560.00
$ 112,455.00	$ 109,242.00	$ 106,029.00	$ 102,816.00	$ 99,603.00	$ 96,390.00	$ 93,177.00	$ 89,964.00	$ 86,751.00	$ 83,538.00
$ 142,680.00	$ 137,760.00	$ 132,840.00	$ 127,920.00	$ 123,000.00	$ 123,000.00	$ 123,000.00	$ 123,000.00	$ 123,000.00	$ 123,000.00
$ 67,500.00	$ 65,250.00	$ 63,000.00	$ 60,750.00	$ 58,500.00	$ 56,250.00	$ 56,250.00	$ 56,250.00	$ 56,250.00	$ 56,250.00
$ 4,236,660.45	$ 4,224,415.05	$ 4,212,169.65	$ 4,199,924.25	$ 4,187,678.85	$ 4,180,353.45	$ 4,175,278.05	$ 4,170,202.65	$ 4,165,127.25	$ 4,161,914.25
$ 18,360.00	$ 18,360.00	$ 18,360.00	$ 18,360.00	$ 18,360.00	$ 18,360.00	$ 18,360.00	$ 18,360.00	$ 18,360.00	$ 18,360.00
$ 21,000.00	$ 21,000.00	$ 21,000.00	$ 21,000.00	$ 21,000.00	$ 21,000.00	$ 21,000.00	$ 21,000.00	$ 21,000.00	$ 21,000.00
$ 29,520.00	$ 29,520.00	$ 29,520.00	$ 29,520.00	$ 29,520.00	$ 29,520.00	$ 29,520.00	$ 29,520.00	$ 29,520.00	$ 29,520.00
$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00
$ 31,500.00	$ 31,500.00	$ 31,500.00	$ 31,500.00	$ 31,500.00	$ 31,500.00	$ 31,500.00	$ 31,500.00	$ 31,500.00	$ 31,500.00
$ 63,000.00	$ 63,000.00	$ 63,000.00	$ 63,000.00	$ 63,000.00	$ 63,000.00	$ 63,000.00	$ 63,000.00	$ 63,000.00	$ 63,000.00
$ 110,000.00	$ 110,000.00	$ 110,000.00	$ 110,000.00	$ 110,000.00	$ 110,000.00	$ 110,000.00	$ 110,000.00	$ 110,000.00	$ 110,000.00
$ 180,000.00	$ 174,000.00	$ 168,000.00	$ 162,000.00	$ 156,000.00	$ 150,000.00	$ 150,000.00	$ 150,000.00	$ 150,000.00	$ 150,000.00
$ 73,800.00	$ 73,800.00	$ 73,800.00	$ 73,800.00	$ 73,800.00	$ 73,800.00	$ 73,800.00	$ 73,800.00	$ 73,800.00	$ 73,800.00
$ 91,000.00	$ 91,000.00	$ 91,000.00	$ 91,000.00	$ 91,000.00	$ 91,000.00	$ 91,000.00	$ 91,000.00	$ 91,000.00	$ 91,000.00
$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00
$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00
$ 90,250.00	$ 90,250.00	$ 90,250.00	$ 90,250.00	$ 90,250.00	$ 90,250.00	$ 90,250.00	$ 90,250.00	$ 90,250.00	$ 90,250.00
$ 125,949.60	$ 122,245.20	$ 118,540.80	$ 114,836.40	$ 111,132.00	$ 107,427.60	$ 103,723.20	$ 100,018.80	$ 96,314.40	$ 92,610.00
$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00
$ 80,800.00	$ 80,800.00	$ 80,800.00	$ 80,800.00	$ 80,800.00	$ 80,800.00	$ 80,800.00	$ 80,800.00	$ 80,800.00	$ 80,800.00
$ 168,000.00	$ 168,000.00	$ 168,000.00	$ 168,000.00	$ 168,000.00	$ 168,000.00	$ 168,000.00	$ 168,000.00	$ 168,000.00	$ 168,000.00
$ 176,000.00	$ 176,000.00	$ 176,000.00	$ 176,000.00	$ 176,000.00	$ 176,000.00	$ 176,000.00	$ 176,000.00	$ 176,000.00	$ 176,000.00
$ 25,500.00	$ 25,500.00	$ 25,500.00	$ 25,500.00	$ 25,500.00	$ 25,500.00	$ 25,500.00	$ 25,500.00	$ 25,500.00	$ 25,500.00
$ 100,440.00	$ 96,720.00	$ 93,000.00	$ 93,000.00	$ 93,000.00	$ 93,000.00	$ 93,000.00	$ 93,000.00	$ 93,000.00	$ 93,000.00
$ 34,800.00	$ 34,800.00	$ 34,800.00	$ 34,800.00	$ 34,800.00	$ 34,800.00	$ 34,800.00	$ 34,800.00	$ 34,800.00	$ 34,800.00
$ 252,840.00	$ 244,412.00	$ 235,984.00	$ 227,556.00	$ 219,128.00	$ 210,700.00	$ 210,700.00	$ 210,700.00	$ 210,700.00	$ 210,700.00
$ 191,520.00	$ 185,136.00	$ 178,752.00	$ 172,368.00	$ 165,984.00	$ 159,600.00	$ 159,600.00	$ 159,600.00	$ 159,600.00	$ 159,600.00
$ 79,200.00	$ 79,200.00	$ 79,200.00	$ 79,200.00	$ 79,200.00	$ 79,200.00	$ 79,200.00	$ 79,200.00	$ 79,200.00	$ 79,200.00
$ 52,800.00	$ 52,800.00	$ 52,800.00	$ 52,800.00	$ 52,800.00	$ 52,800.00	$ 52,800.00	$ 52,800.00	$ 52,800.00	$ 52,800.00
$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00
$ 109,928.00	$ 106,002.00	$ 102,076.00	$ 98,150.00	$ 98,150.00	$ 98,150.00	$ 98,150.00	$ 98,150.00	$ 98,150.00	$ 98,150.00
$ 2,457,637.60	$ 2,425,475.20	$ 2,393,312.80	$ 2,364,870.40	$ 2,340,354.00	$ 2,315,837.60	$ 2,312,133.20	$ 2,308,428.80	$ 2,304,724.40	$ 2,301,020.00
$ 6,694,298.05	$ 6,649,890.25	$ 6,605,482.45	$ 6,564,794.65	$ 6,528,032.85	$ 6,496,191.05	$ 6,487,411.25	$ 6,478,631.45	$ 6,469,851.65	$ 6,462,934.25
$ 90,000.00	$ 40,000.00	$ 80,000.00	$ 1,093,600.00	$ 10,000.00	$ 117,500.00	$ 20,000.00	$ 65,000.00	$ 130,000.00	$ 45,000.00
$ 7,135,860.69	$ 7,080,240.16	$ 7,065,364.94	$ 8,064,289.05	$ 7,966,227.58	$ 7,976,980.13	$ 7,890,088.60	$ 7,849,361.41	$ 7,874,179.97	$ 7,813,665.95
$ 13,830,158.74	$ 13,730,130.41	$ 13,670,847.39	$ 14,629,083.70	$ 14,494,260.43	$ 14,473,171.18	$ 14,377,499.85	$ 14,327,992.86	$ 14,344,031.62	$ 14,276,600.20

2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083
$ 43,920.00	$ 43,920.00	$ 43,920.00	$ 43,920.00	$ 43,920.00	$ 43,920.00	$ 43,920.00	$ 43,920.00	$ 43,920.00	$ 43,920.00	$ 43,920.00	$ 43,920.00	$ 43,920.00	$ 43,920.00	$ 43,920.00	$ 43,920.00	$ 43,920.00	$ 43,920.00	$ 43,920.00
$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00	$ 258,750.00
$ 116,617.50	$ 116,617.50	$ 116,617.50	$ 116,617.50	$ 116,617.50	$ 116,617.50	$ 116,617.50	$ 116,617.50	$ 116,617.50	$ 116,617.50	$ 116,617.50	$ 116,617.50	$ 116,617.50	$ 116,617.50	$ 116,617.50	$ 116,617.50	$ 116,617.50	$ 116,617.50	$ 116,617.50
$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00	$ 147,900.00
$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00	$ 79,500.00
$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00	$ 225,900.00
$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00	$ 2,262,825.00
$ 146,625.00	$ 146,625.00	$ 146,625.00	$ 146,625.00	$ 146,625.00	$ 146,625.00	$ 146,625.00	$ 146,625.00	$ 146,625.00	$ 146,625.00	$ 146,625.00	$ 146,625.00	$ 146,625.00	$ 146,625.00	$ 146,625.00	$ 146,625.00	$ 146,625.00	$ 146,625.00	$ 146,625.00
$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00	$ 101,565.00
$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25	$ 62,906.25
$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00	$ 29,970.00
$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00
$ 157,500.00	$ 157,500.00	$ 157,500.00	$ 157,500.00	$ 157,500.00	$ 157,500.00	$ 157,500.00	$ 157,500.00	$ 157,500.00	$ 157,500.00	$ 157,500.00	$ 157,500.00	$ 157,500.00	$ 157,500.00	$ 157,500.00	$ 157,500.00	$ 157,500.00	$ 157,500.00	$ 157,500.00
$ 87,337.50	$ 87,337.50	$ 87,337.50	$ 87,337.50	$ 87,337.50	$ 87,337.50	$ 87,337.50	$ 87,337.50	$ 87,337.50	$ 87,337.50	$ 87,337.50	$ 87,337.50	$ 87,337.50	$ 87,337.50	$ 87,337.50	$ 87,337.50	$ 87,337.50	$ 87,337.50	$ 87,337.50
$ 46,560.00	$ 46,560.00	$ 46,560.00	$ 46,560.00	$ 46,560.00	$ 46,560.00	$ 46,560.00	$ 46,560.00	$ 46,560.00	$ 46,560.00	$ 46,560.00	$ 46,560.00	$ 46,560.00	$ 46,560.00	$ 46,560.00	$ 46,560.00	$ 46,560.00	$ 46,560.00	$ 46,560.00
$ 80,325.00	$ 80,325.00	$ 80,325.00	$ 80,325.00	$ 80,325.00	$ 80,325.00	$ 80,325.00	$ 80,325.00	$ 80,325.00	$ 80,325.00	$ 80,325.00	$ 80,325.00	$ 80,325.00	$ 80,325.00	$ 80,325.00	$ 80,325.00	$ 80,325.00	$ 80,325.00	$ 80,325.00
$ 123,000.00	$ 123,000.00	$ 123,000.00	$ 123,000.00	$ 123,000.00	$ 123,000.00	$ 123,000.00	$ 123,000.00	$ 123,000.00	$ 123,000.00	$ 123,000.00	$ 123,000.00	$ 123,000.00	$ 123,000.00	$ 123,000.00	$ 123,000.00	$ 123,000.00	$ 123,000.00	$ 123,000.00
$ 56,250.00	$ 56,250.00	$ 56,250.00	$ 56,250.00	$ 56,250.00	$ 56,250.00	$ 56,250.00	$ 56,250.00	$ 56,250.00	$ 56,250.00	$ 56,250.00	$ 56,250.00	$ 56,250.00	$ 56,250.00	$ 56,250.00	$ 56,250.00	$ 56,250.00	$ 56,250.00	$ 56,250.00
$ 4,158,701.25	$ 4,158,701.25	$ 4,158,701.25	$ 4,158,701.25	$ 4,158,701.25	$ 4,158,701.25	$ 4,158,701.25	$ 4,158,701.25	$ 4,158,701.25	$ 4,158,701.25	$ 4,158,701.25	$ 4,158,701.25	$ 4,158,701.25	$ 4,158,701.25	$ 4,158,701.25	$ 4,158,701.25	$ 4,158,701.25	$ 4,158,701.25	$ 4,158,701.25
$ 18,360.00	$ 18,360.00	$ 18,360.00	$ 18,360.00	$ 18,360.00	$ 18,360.00	$ 18,360.00	$ 18,360.00	$ 18,360.00	$ 18,360.00	$ 18,360.00	$ 18,360.00	$ 18,360.00	$ 18,360.00	$ 18,360.00	$ 18,360.00	$ 18,360.00	$ 18,360.00	$ 18,360.00
$ 21,000.00	$ 21,000.00	$ 21,000.00	$ 21,000.00	$ 21,000.00	$ 21,000.00	$ 21,000.00	$ 21,000.00	$ 21,000.00	$ 21,000.00	$ 21,000.00	$ 21,000.00	$ 21,000.00	$ 21,000.00	$ 21,000.00	$ 21,000.00	$ 21,000.00	$ 21,000.00	$ 21,000.00
$ 29,520.00	$ 29,520.00	$ 29,520.00	$ 29,520.00	$ 29,520.00	$ 29,520.00	$ 29,520.00	$ 29,520.00	$ 29,520.00	$ 29,520.00	$ 29,520.00	$ 29,520.00	$ 29,520.00	$ 29,520.00	$ 29,520.00	$ 29,520.00	$ 29,520.00	$ 29,520.00	$ 29,520.00
$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00
$ 31,500.00	$ 31,500.00	$ 31,500.00	$ 31,500.00	$ 31,500.00	$ 31,500.00	$ 31,500.00	$ 31,500.00	$ 31,500.00	$ 31,500.00	$ 31,500.00	$ 31,500.00	$ 31,500.00	$ 31,500.00	$ 31,500.00	$ 31,500.00	$ 31,500.00	$ 31,500.00	$ 31,500.00
$ 63,000.00	$ 63,000.00	$ 63,000.00	$ 63,000.00	$ 63,000.00	$ 63,000.00	$ 63,000.00	$ 63,000.00	$ 63,000.00	$ 63,000.00	$ 63,000.00	$ 63,000.00	$ 63,000.00	$ 63,000.00	$ 63,000.00	$ 63,000.00	$ 63,000.00	$ 63,000.00	$ 63,000.00
$ 110,000.00	$ 110,000.00	$ 110,000.00	$ 110,000.00	$ 110,000.00	$ 110,000.00	$ 110,000.00	$ 110,000.00	$ 110,000.00	$ 110,000.00	$ 110,000.00	$ 110,000.00	$ 110,000.00	$ 110,000.00	$ 110,000.00	$ 110,000.00	$ 110,000.00	$ 110,000.00	$ 110,000.00
$ 150,000.00	$ 150,000.00	$ 150,000.00	$ 150,000.00	$ 150,000.00	$ 150,000.00	$ 150,000.00	$ 150,000.00	$ 150,000.00	$ 150,000.00	$ 150,000.00	$ 150,000.00	$ 150,000.00	$ 150,000.00	$ 150,000.00	$ 150,000.00	$ 150,000.00	$ 150,000.00	$ 150,000.00
$ 73,800.00	$ 73,800.00	$ 73,800.00	$ 73,800.00	$ 73,800.00	$ 73,800.00	$ 73,800.00	$ 73,800.00	$ 73,800.00	$ 73,800.00	$ 73,800.00	$ 73,800.00	$ 73,800.00	$ 73,800.00	$ 73,800.00	$ 73,800.00	$ 73,800.00	$ 73,800.00	$ 73,800.00
$ 91,000.00	$ 91,000.00	$ 91,000.00	$ 91,000.00	$ 91,000.00	$ 91,000.00	$ 91,000.00	$ 91,000.00	$ 91,000.00	$ 91,000.00	$ 91,000.00	$ 91,000.00	$ 91,000.00	$ 91,000.00	$ 91,000.00	$ 91,000.00	$ 91,000.00	$ 91,000.00	$ 91,000.00
$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00	$ 71,250.00
$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00	$ 21,600.00
$ 90,250.00	$ 90,250.00	$ 90,250.00	$ 90,250.00	$ 90,250.00	$ 90,250.00	$ 90,250.00	$ 90,250.00	$ 90,250.00	$ 90,250.00	$ 90,250.00	$ 90,250.00	$ 90,250.00	$ 90,250.00	$ 90,250.00	$ 90,250.00	$ 90,250.00	$ 90,250.00	$ 90,250.00
$ 92,610.00	$ 92,610.00	$ 92,610.00	$ 92,610.00	$ 92,610.00	$ 92,610.00	$ 92,610.00	$ 92,610.00	$ 92,610.00	$ 92,610.00	$ 92,610.00	$ 92,610.00	$ 92,610.00	$ 92,610.00	$ 92,610.00	$ 92,610.00	$ 92,610.00	$ 92,610.00	$ 92,610.00
$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00	$ 131,250.00
$ 80,800.00	$ 80,800.00	$ 80,800.00	$ 80,800.00	$ 80,800.00	$ 80,800.00	$ 80,800.00	$ 80,800.00	$ 80,800.00	$ 80,800.00	$ 80,800.00	$ 80,800.00	$ 80,800.00	$ 80,800.00	$ 80,800.00	$ 80,800.00	$ 80,800.00	$ 80,800.00	$ 80,800.00
$ 168,000.00	$ 168,000.00	$ 168,000.00	$ 168,000.00	$ 168,000.00	$ 168,000.00	$ 168,000.00	$ 168,000.00	$ 168,000.00	$ 168,000.00	$ 168,000.00	$ 168,000.00	$ 168,000.00	$ 168,000.00	$ 168,000.00	$ 168,000.00	$ 168,000.00	$ 168,000.00	$ 168,000.00
$ 176,000.00	$ 176,000.00	$ 176,000.00	$ 176,000.00	$ 176,000.00	$ 176,000.00	$ 176,000.00	$ 176,000.00	$ 176,000.00	$ 176,000.00	$ 176,000.00	$ 176,000.00	$ 176,000.00	$ 176,000.00	$ 176,000.00	$ 176,000.00	$ 176,000.00	$ 176,000.00	$ 176,000.00
$ 25,500.00	$ 25,500.00	$ 25,500.00	$ 25,500.00	$ 25,500.00	$ 25,500.00	$ 25,500.00	$ 25,500.00	$ 25,500.00	$ 25,500.00	$ 25,500.00	$ 25,500.00	$ 25,500.00	$ 25,500.00	$ 25,500.00	$ 25,500.00	$ 25,500.00	$ 25,500.00	$ 25,500.00
$ 93,000.00	$ 93,000.00	$ 93,000.00	$ 93,000.00	$ 93,000.00	$ 93,000.00	$ 93,000.00	$ 93,000.00	$ 93,000.00	$ 93,000.00	$ 93,000.00	$ 93,000.00	$ 93,000.00	$ 93,000.00	$ 93,000.00	$ 93,000.00	$ 93,000.00	$ 93,000.00	$ 93,000.00
$ 34,800.00	$ 34,800.00	$ 34,800.00	$ 34,800.00	$ 34,800.00	$ 34,800.00	$ 34,800.00	$ 34,800.00	$ 34,800.00	$ 34,800.00	$ 34,800.00	$ 34,800.00	$ 34,800.00	$ 34,800.00	$ 34,800.00	$ 34,800.00	$ 34,800.00	$ 34,800.00	$ 34,800.00
$ 210,700.00	$ 210,700.00	$ 210,700.00	$ 210,700.00	$ 210,700.00	$ 210,700.00	$ 210,700.00	$ 210,700.00	$ 210,700.00	$ 210,700.00	$ 210,700.00	$ 210,700.00	$ 210,700.00	$ 210,700.00	$ 210,700.00	$ 210,700.00	$ 210,700.00	$ 210,700.00	$ 210,700.00
$ 159,600.00	$ 159,600.00	$ 159,600.00	$ 159,600.00	$ 159,600.00	$ 159,600.00	$ 159,600.00	$ 159,600.00	$ 159,600.00	$ 159,600.00	$ 159,600.00	$ 159,600.00	$ 159,600.00	$ 159,600.00	$ 159,600.00	$ 159,600.00	$ 159,600.00	$ 159,600.00	$ 159,600.00
$ 79,200.00	$ 79,200.00	$ 79,200.00	$ 79,200.00	$ 79,200.00	$ 79,200.00	$ 79,200.00	$ 79,200.00	$ 79,200.00	$ 79,200.00	$ 79,200.00	$ 79,200.00	$ 79,200.00	$ 79,200.00	$ 79,200.00	$ 79,200.00	$ 79,200.00	$ 79,200.00	$ 79,200.00
$ 52,800.00	$ 52,800.00	$ 52,800.00	$ 52,800.00	$ 52,800.00	$ 52,800.00	$ 52,800.00	$ 52,800.00	$ 52,800.00	$ 52,800.00	$ 52,800.00	$ 52,800.00	$ 52,800.00	$ 52,800.00	$ 52,800.00	$ 52,800.00	$ 52,800.00	$ 52,800.00	$ 52,800.00
$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00	$ 42,330.00
$ 98,150.00	$ 98,150.00	$ 98,150.00	$ 98,150.00	$ 98,150.00	$ 98,150.00	$ 98,150.00	$ 98,150.00	$ 98,150.00	$ 98,150.00	$ 98,150.00	$ 98,150.00	$ 98,150.00	$ 98,150.00	$ 98,150.00	$ 98,150.00	$ 98,150.00	$ 98,150.00	$ 98,150.00
$ 2,301,020.00	$ 2,301,020.00	$ 2,301,020.00	$ 2,301,020.00	$ 2,301,020.00	$ 2,301,020.00	$ 2,301,020.00	$ 2,301,020.00	$ 2,301,020.00	$ 2,301,020.00	$ 2,301,020.00	$ 2,301,020.00	$ 2,301,020.00	$ 2,301,020.00	$ 2,301,020.00	$ 2,301,020.00	$ 2,301,020.00	$ 2,301,020.00	$ 2,301,020.00

$ 6,459,721.25	$ 6,459,721.25	$ 6,459,721.25	$ 6,459,721.25	$ 6,459,721.25	$ 6,459,721.25	$ 6,459,721.25	$ 6,459,721.25	$ 6,459,721.25	$ 6,459,721.25	$ 6,459,721.25	$ 6,459,721.25	$ 6,459,721.25	$ 6,459,721.25	$ 6,459,721.25	$ 6,459,721.25	$ 6,459,721.25	$ 6,459,721.25	$ 6,459,721.25
$ 175,000.00	$ -	$ 105,000.00	$ 275,000.00	$ 570,000.00	$ 157,500.00	$ 130,000.00	$ 75,000.00	$ 65,000.00	$ 270,000.00	$ 25,000.00	$ 90,000.00	$ 20,000.00	$ 410,000.00	$ 10,000.00	$ 137,500.00	$ -	$ 100,000.00	$ 135,000.00
$ 7,883,962.83	$ 7,778,317.73	$ 7,779,088.27	$ 7,949,848.49	$ 8,413,320.52	$ 8,458,082.02	$ 8,474,743.72	$ 8,436,182.16	$ 8,388,137.32	$ 8,545,736.28	$ 8,456,223.41	$ 8,432,910.02	$ 8,339,909.02	$ 8,638,154.24	$ 8,532,402.98	$ 8,555,568.78	$ 8,440,924.15	$ 8,427,815.77	$ 8,449,883.04
$ 14,343,684.08	$ 14,238,038.98	$ 14,238,809.52	$ 14,409,569.74	$ 14,873,041.77	$ 14,917,803.27	$ 14,934,464.97	$ 14,895,903.41	$ 14,847,858.57	$ 15,005,457.53	$ 14,915,944.66	$ 14,892,631.27	$ 14,799,630.27	$ 15,097,875.49	$ 14,992,124.23	$ 15,015,290.03	$ 14,900,645.40	$ 14,887,537.02	$ 14,909,604.29

Document Control	

Document ID: Building AMP June 2010.doc					
Rev No	Date	Revision Details	Author	Reviewer	Approver
3	29 Jan 2010	Reformatted into IPWEA NAMS	MT	MM	CMc
3.01	30 June2010	Content Revised	CM	MM	TBA
3.02	28/02/2011		EJ		CM

TABLE OF CONTENTS

1. EXECUTIVE SUMMARY

What Council Provides

Council provides Building Assets in partnership with Community and sporting groups to enable safe, functional and sustainable use relevant to the building type.

What does it Cost?

There are two key indicators of cost to provide the Building Assets.

- 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 15 years covered by Council's long term financial plan.

Annual Forecast Maintenance	$824,000
Annualised Renewal and Replacement Program	$693,000
Total Annual Cost	$1,517,000

Plans for the Future

Council plans to operate and maintain the Building Asset network to achieve the following strategic objectives.

1. Ensure Building Assets are maintained at a safe, secure, equitable and functional standard as set out in this asset management plan.
2. Ensure Building Assets are inspected regularly to the standard as set out in this asset management plan.
3. Ensure Building Assets meet the demand of future growth as set out in this asset management plan.

Measuring our Performance

Quality
Building assets will be maintained in a reasonably usable condition. 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 Building Assets are maintained adequately to provide the community, sporting groups and visitors with appropriate, safe, accessible and attractive buildings.

Building asset attributes will be maintained at a safe level and associated signage and equipment be provided as needed to ensure public safety and accessibility. We need to ensure key functional objectives are met.

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

The Next Steps

The actions resulting from this asset management plan are:

- Continue Formal Routine Inspections
- Action Community and User requests regarding building maintenance and improvements
- Community Survey of satisfaction of building service levels
- Review demand growth areas

2. INTRODUCTION

2.1 Background

This asset management plan seeks to: demonstrate responsive management of assets and associated services, comply with regulatory requirements, and communicate the level of funding necessary to provide the required levels of service.

The asset management plan is to be read with the following associated planning documents:

Maitland 2021 Community Strategic Plan 2011

Maitland Delivery Program 2011

Asset Management Policy 2011

Asset Management Strategy 2011

This asset management plan covers the following infrastructure assets:

The Council Assets & Infrastructure Planning buildings inventory consists of 143 buildings and 2 swimming pool complexes varying in age from new to over 100 years of age (such as the Town Hall). The buildings also have a wide range of uses such as libraries, office buildings, community buildings, childcare centres, historic buildings (such as Morpeth Court House), and sporting facilities (swimming pools, amenities blocks, sporting oval buildings, grandstands).

Table 2.1. Assets covered by this Plan

Asset category	Description	Replacement Value ($M)
District Buildings	Council's 5 district buildings are located at (and built): Administration Building (1983), Art Gallery (1910 - 2009), Morpeth Court House Museum (1862), Town Hall (1889) and Visitors Centre (1997).	$39M
Libraries	Council's 4 libraries are located at (and built): Maitland (1968), Thornton (1999), East Maitland (2004) and Rutherford (2003).	$4.9M
Child Care Centres	Council's 4 child care centres are located at (and built): Metford (1984), Thornton (1987), Rutherford (1987) and East Maitland (1998).	$3M
Community Halls	Council's 13 community halls/centres are spread across the Local Government Area.	$10.4M
Amenities Buildings	Council's 34 amenities buildings are located in various parks and ovals throughout the Local Government Area.	$13.5M
Toilet Blocks	Council's 23 public toilet blocks are located in various parks and ovals throughout the Local Government Area	$1.4M
Grandstands	Council's 9 grandstands are located in various parks and ovals throughout the Local Government Area. The grandstands are generally associated with local sports clubs and some have toilets, change/meeting rooms, and storerooms	$3.6M
Kiosks	Council's 12 kiosks are located in various parks and ovals throughout the Local Government Area. The kiosks are generally associated with local sports clubs and have kitchen and storage facilities.	$0.8M
Council Works Depot	Council's Works Depot located at Metford comprises 19 buildings including various workshops, offices, storage sheds and amenities.	$8.6M
Equipment Sheds	Council's 23 equipment sheds are located in various parks and ovals throughout the Local Government Area. The equipment sheds are generally associated with local sports clubs.	$0.5M
Miscellaneous Buildings	Council's 14 miscellaneous buildings include: the historic Walka Water Works complex (1887/1913), historic Town Hall Café (1849), several residential rental properties and other	$1.4M

	minor recreational structures.	
Nursery	Council's Nursery located in Maitland Park comprises 2 workshop/amenities buildings.	$0.1M
Waste Depot	Council's Waste Depot located at Mt Vincent Road, East Maitland comprises 5 buildings including a weighbridge, offices & sheds.	$1.5M
TOTAL		**$88.7M**

Council also owns a number of buildings & complexes which are managed by other divisions within Council or externally and subsequently are not covered by this Plan. These buildings are generally Works related and are listed below in Table 2.2.

Table 2.2. Assets Additional to Council's Core Service Delivery

The following buildings with use to Council are additional to Council's Core Service Delivery. The Maitland Gaol is managed by Council however is not a Council asset.

Asset category	Description
Gaol	Council's Gaol located at East Maitland (1884) is an historic walled complex of 24 buildings.
Gaol Rental Houses	Adjacent to the Gaol complex are 3 residential houses that Council rents out commercially.
SES Headquarters	Council's emergency response headquarters building is located at Rutherford.
Rangers Headquarters	Council's rangers headquarters building is located at East Maitland.

Key stakeholders in the preparation and implementation of this asset management plan are:

Community, Recreational Groups & Visitors	User Safety, Work requests & Satisfaction
Tenants	User Safety, Work requests & Satisfaction
Developers	Compliance and Financial Contribution
Heritage Bodies	Compliance & Information
Council Community & Recreation Services	Community, Recreation Group & Visitor Liaison & Feedback
Council Assets & Infrastructure Planning	Planning, Design and Management
Council City Works & Services	Provision of Services

2.2 Goals and Objectives of Asset Management

The Council exists to provide services to its community. Some of these services are provided by infrastructure assets. Council has acquired infrastructure assets by 'purchase', by construction via council staff or contractors and by donation via developers and others to meet increased demand and levels of service.

Council'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 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,
- Sustainable use of physical resources,
- Continuous improvement in asset management practices.[1]

2.3 Plan Framework

Key elements of the plan are

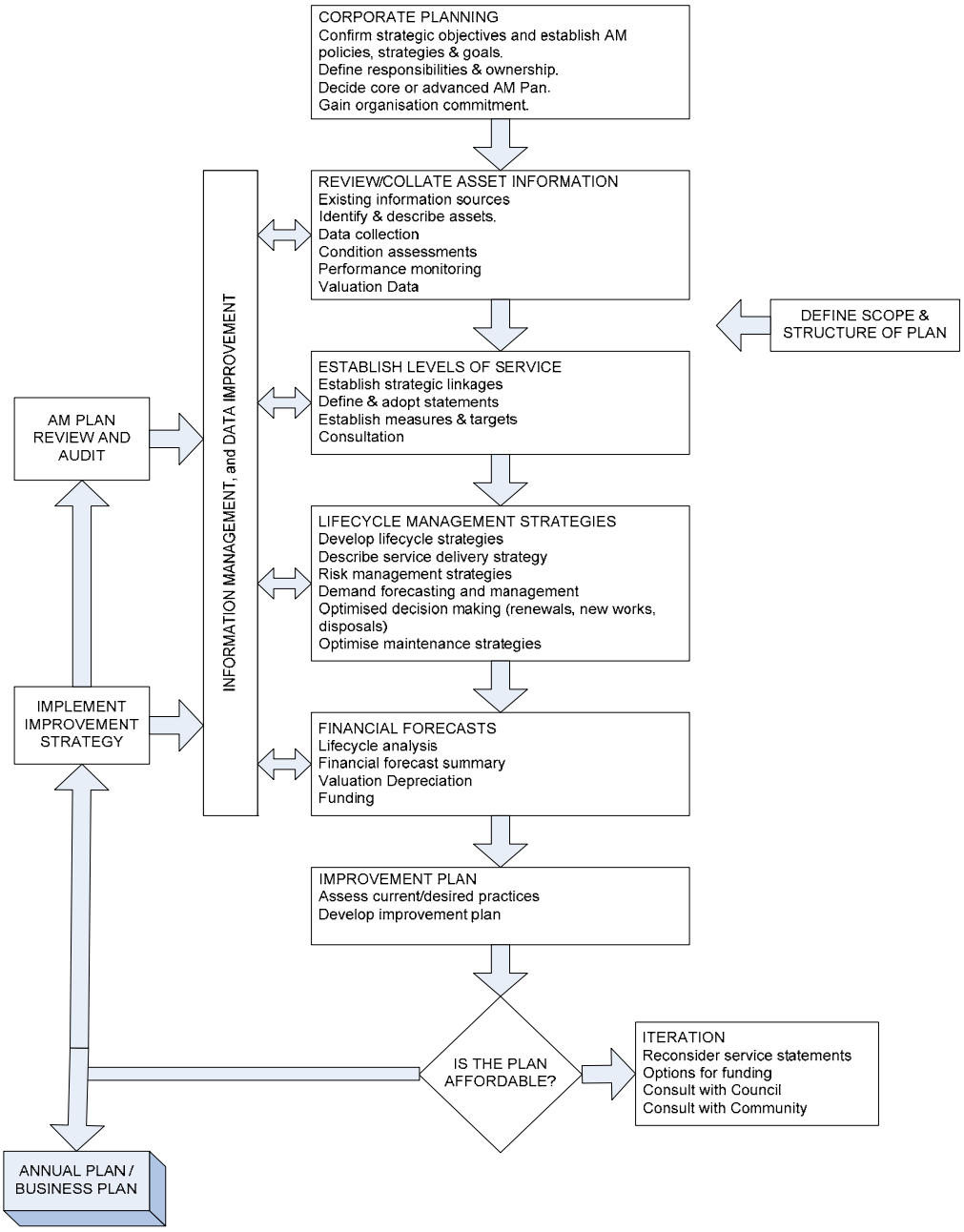
- Levels of service – specifies the services and levels of service to be provided by council.
- Future demand – how this will impact on future service delivery and how this is to be met.
- Life cycle management – how Council will manage its existing and future assets to provide the required services
- 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 Council's objectives.
- Asset management improvement plan

[1] IIMM 2006 Sec 1.1.3, p 1.3

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 Advanced Asset Management

This asset management plan is prepared as an advanced 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. Advanced 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 advance the '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

Council has recently conducted a Community Survey (2009). This and future surveys will be investigated for future updates of the asset management plan.

Building Construction & Maintenance: Customer satisfaction has been measured via a Community Survey 2009. Comparison with the 2006 survey has customer opinion not changing. Customer Service complaints have actually decreased.

There are always some requests for service in this area. Building assets has a back log of works that needs addressing. This may have contributed in the very small drop in surveyed satisfaction. Complaints have decreased.

3.2 Legislative Requirements

Council has to meet many legislative requirements including Australian and State legislation and State regulations. These include:

Table 3.2. Legislative Requirements

Legislation	Requirement
Local Government Act 1993 Local Government Regulation 2005	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
Building Code of Australia	Compliance to Code
Aust/NZ Standards	General compliance to required standards
Occupational Health and Safety Act 2000 Occupational Heath and Safety Regulation 2001	Compliance to safety and workplace laws
Federal Laws and Regulations	General compliance
Legislation	**Requirement**
Disability Discrimination Act 1992	To ensure that the persons with disabilities have the same rights as the rest of the community
Heritage Act 1977	Protection of historic buildings, structures and precincts
Electricity Act 2004	Electricity safety provisions in NSW
Hunter Water Act 1991	Provision of water, sewerage and drainage services in the Hunter region by the Hunter Water Board
Gas Supply Act 1996 Gas Supply Regulation 2002	Provisions to regulate the supply of gas in NSW
Occupational Heath and Safety Amendment (Dangerous Goods) Act 2003 Occupational Heath and Safety Amendment (Dangerous Goods) Regulation 2005	Provisions to protect the health and safety of the public from hazards arising from the storage and handling of dangerous goods
Crowns Lands Act 1989	Sets out requirements for work and leases on Crown Land

3.3 Current Operating & Maintenance Level of Service

Council has defined service levels in two terms.

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.

Supporting the community service levels are operational or technical measures of performance developed to ensure that the minimum community levels of service are met. These technical measures relate to service criteria such as:

Service Criteria	**Technical measures may relate to**
Fit for purpose	Maintenance
User Access	Usage Statistics
Safety	Number of injury accidents

Prioritisation of works ensures the cost effective maintenance of building assets throughout Maitland.

Council's current service levels as expenditure are detailed in Table 3.3.

Table 3.3. Current Operating & Maintenance Service Levels as Expenditure

ITEM/ CATEGORY	FIRE PROTECTION (6 MONTHLY)	SECURITY MONITORING	AIR CONDITIONING (MONTHLY)	AUTOMATIC DOOR SERVICING (3 MONTHLY)	LIFT SERVICING (YEARLY)	CONTRACT CLEANING	GROUNDS MAINTENANCE	TOTAL ANNUAL COST ($)
DISTRICT BUILDINGS	15,000	10,000	18,000	5,000	8,000	Council Staff	12,000	68,000+
LIBRARIES	3,000	6,000	7,000	6,000	500	60,000	9,000	91,500
CHILD CARE CENTRES	2,500	100	Lessees Pay	N/A	N/A	Lessees Pay	Lessees Pay	2,600
COMMUNITY HALLS	12,000	14,000	5,000	1,000	N/A	69,000	26,000	127,000
AMENITIES BUILDINGS	200	N/A	N/A	N/A	N/A	N/A	N/A	200
TOILET BLOCKS	N/A	N/A	N/A	N/A	N/A	130,000	N/A	130,000
GRANDSTANDS	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
KIOSKS	500	N/A	N/A	N/A	N/A	N/A	N/A	500
COUNCIL WORKS DEPOT	10,000	10,000	20,000	4,124	N/A	10,000	10,000	64,124
EQUIPMENT SHEDS	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MISCELLANEOUS BUILDINGS	200	N/A	N/A	N/A	N/A	500	N/A	700

Table 3.3. Preventative Maintenance Program

System	Level of Service	Current Performance
Air Conditioning	Monthly service, repairs as necessary	Achieved, contract in place
Cooling Towers	Monthly service, quarterly legionella tests, repairs as necessary	Achieved, contract in place
Electrical Services	Periodical regulatory devices service, repairs as necessary	Achieved, contract in place
Plumbing Services	Annual regulatory devices & quarterly services, repairs as necessary	Achieved, contract in place
Fire Services	6 monthly service, repairs as necessary	Achieved, contract in place
Security Services	6 monthly service, after-hours electronic monitoring, night patrols, repairs as necessary	Achieved, annual agreements in place

Key Performance Measure	Level of Service	Performance Measure Process	Performance Target	Current Performance
COMMUNITY LEVELS OF SERVICE				
Customer Satisfaction score	Customer Satisfaction	Conduct Community Surveys	Satisfaction score >7.6 (Community Survey 2009)	Current Score is 7.6
TECHNICAL LEVELS OF SERVICE				
Statistics on maintenance, usage and accidents	Functional buildings, safe and fit for purpose.	Monitor seasonally adjusted complaints and expenditure patterns	Improve function capacity and appearances.	Buildings are generally safe and fit for purpose. There exists a backlog of work that effect appearances.

3.4 Desired Levels of Service

At present, indications of desired levels of service are obtained from various sources including future customer satisfaction survey, residents' feedback to Councillors and staff, service requests and correspondence. Council has yet to quantify desired levels of service. This will be done in future revisions of this asset management plan. In the meantime current service levels will be maintained.

Generally, a lift in appearance is desirable, but not at the expense of 'necessary' works.

4. FUTURE DEMAND

4.1 Demand Forecast

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

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

Table 4.1. Demand Factors, Projections and Impact on Services

Demand factor	Present position	Projection	Impact on services
Population	2001 Census - 53,803	2026 – 96,000	Proportional increase in the number of buildings &/or extensions to existing buildings to meet projected population growth primarily in urban residential areas

4.2 Changes in Technology

Technology changes are forecast to have little effect on the delivery of services covered by this plan. Any advance in materials and methods of operation will be considered on merit and cost.

4.3 Demand Management Plan

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

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.

Table 4.3. Demand Management Plan Summary

Service Activity	Demand Management Plan
Building Rationalisation	Determine usage, obsolesce & costs
Non Asset Solutions	User management plans, joint use, multi use, etc

4.4 New Assets from Growth

The new assets required to meet growth will be acquired from land development contributions, government grants and construction by Council. Acquiring these new assets will commit council to fund ongoing operations and maintenance. Over the last several years Council has acquired the following significant buildings:

- Maitland Regional Art Gallery - $8 M
- Extension to Rutherford Community Centre - $1M
- Woodberry Family Centre - $2M

Future demand will impact on several buildings in the short to medium term.

- A new administration facilities and city precinct areas.
- A new library for Maitland CBD

5. LIFECYCLE MANAGEMENT PLAN

The lifecycle management plan details how Council 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

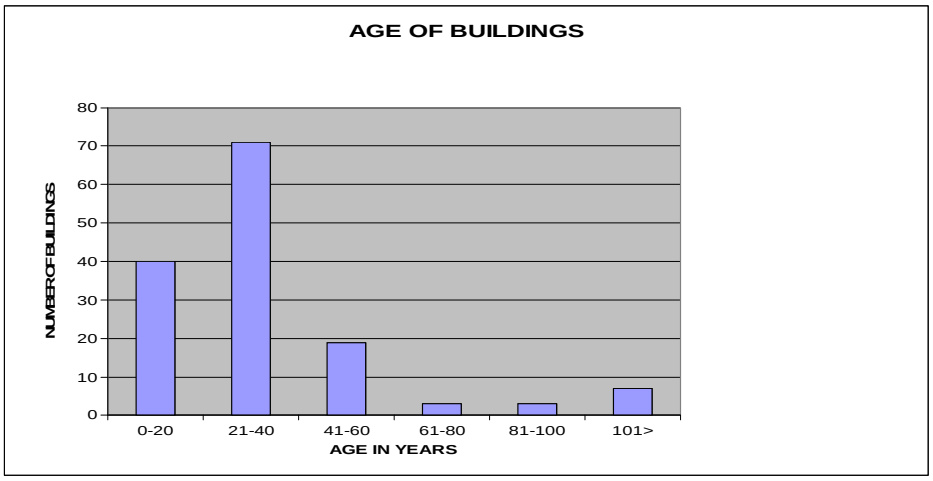
5.1.1 Physical parameters

The assets covered by this asset management plan are shown below.

Building Asset Class	**Quantity (No)**
District	5
Libraries	4
Childcare	4
Community	13
Amenities	34
Aquatic Buildings	2
Toilets	23
Grandstands	9
Kiosks	12
Council Works Depot	1
Equipment Sheds	23
Miscellaneous Buildings	14
Nursery	1
Waste Depot	1
TOTAL	144

The age profile of Council's assets is shown below.

Fig 2. Asset Age Profile



5.1.2 Asset capacity and performance

Council'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.

Table 5.1.2. Known Service Performance Deficiencies and Required Capital Works in the Short to Medium Term

Category	Location	Works	Cost
East Maitland Library	East Maitland	Carpark Extension and fencing	$250,000
Art Gallery	Maitland	Internal Refurbishments	$240,000
Metford Works Depot	Metford	Depot Improvement Program Stage 4 and 5	$237,000
Building Access	Various	Access Improvements To Council Buildings	$170,000
Building Components	Various	Refurbishment of Building Components	$200,000
East Maitland Pool	East Maitland	Olympic Pool Repairs - Deep End Floor Slab & Lateral Joints	$100,000
Minor Building Works	Various	Minor Capital Upgrades and Major Maintenance Items	$190,000
Recreation Buildings	Various	Improvements to Recreation Buildings	$65,000
Art Gallery	Maitland	Progressive Refurbishments	$72,000
Walka Water Works	Oakhampton	Eastern Annex Building - Install wall chair rails	$20,000
Community Buildings	Various	Kitchen Refurbishments – Metford, Tenambit, Rutherford	$150,000
Minor Building Works	Various	Minor Capital Upgrades and Major Maintenance Items	$74,000
Recreation Buildings	Various	Improvements to Recreation Buildings	$300,000
Administration Building	Maitland	Progressive Refurbishments	$240,000
Maitland Library	Maitland	Services/New Airconditioning	$100,000
Art Gallery	Maitland	Structural/Conservation Management Plan	$250,000
East Maitland Community Hall	East Maitland	Structural/Repairs to dance studio	$150,000
Minor Building Works	Various	Minor Capital Upgrades and Major Maintenance Items	$80,000
Toilet Blocks	Various	Disabled Toilet Blocks in 4 locations, including Maitland Park and Maitland Library	$600,000
Town Hall	Maitland	General Heritage Refurbishments	$500,000
		TOTAL	**$3,988,000**

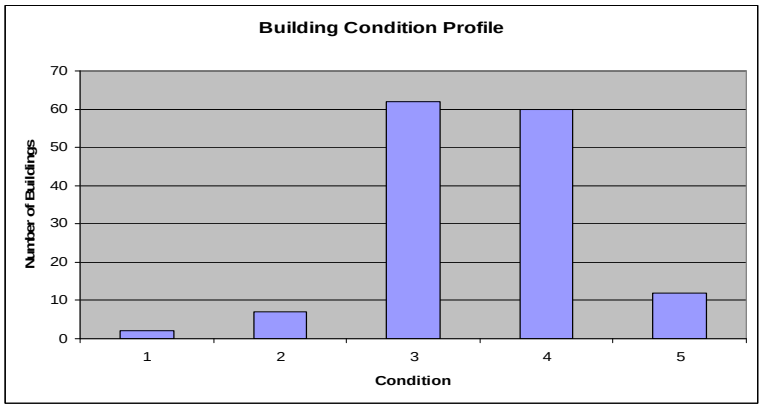
The above service deficiencies were identified from Inspections and customer requests. The works are listed in Councils rolling works program and ranked by priority.

Further to the above programmed works are deficiencies identified in the asset condition profile. These deficiencies must be added to obtain the works required to bring up to satisfactory condition.

5.1.3 Asset condition

The condition profile of Council's assets is shown below.

Fig 3. Asset Condition Profile



Condition is measured using a 1 – 5 rating system.[2]

Rating	Description of Condition
5	Only planned maintenance required.
4	Minor maintenance required plus planned maintenance.
3	Significant maintenance required.
2	Significant renewal/upgrade required.
1	Unserviceable.

Overall, the asset condition of the buildings in Maitland is 3, being of average condition with significant maintenance required. This being the average means that there are buildings with conditions rating from 1 through to 5. Overall, 70% of the building network has a rating of 3 to 5, and 30% of the network has a rating of 1 to 2. The target standard for the building network is to maintain this standard.

[2] IIMM 2006, Appendix B, p B:1-3 ('cyclic' modified to 'planned')

Buildings Rated 1 & 2 includes:

Building	Rating	Comment	Estimate
Morpeth Court House Museum	2	Major refurbishment (Part2)	$300,000
East Maitland Community Centre	2	Site & building works	$250,000
St. Ethel's Band Buildings	2	Refurbishment/Refit	$100,000
Maitland Youth Centre	2	Refurbishment/Asbestos	$150,000
Scobies Lane Dairy & Home	1	Refurbish or demolish	$75,000
Maitland Park Toilet Block	2	Rebuild	$150,000
Elgin St Toilet Block	1	Demolish	$10,000
Largs Park Equipment Shed	2	Replace	$50,000
Tenambit Oval Weather Shelter	2	Demolish	$20,000
TOTAL			$1.1M

Estimate of works required to bring the building asset up to satisfactory standard is $3.2M.

5.1.4 Asset valuations

The value of assets as at June 30th 2010 covered by this asset management plan is summarised below. Assets were last re-valued at $87.1Million.

Current Replacement Cost	$88.5M
Depreciable Amount	$35.6M
Depreciated Replacement Cost	$37.2M
Annual Depreciation Expense	$1.2M

Sustainability analysis reports the rate of annual asset consumption and compares this to asset renewal and asset upgrade and expansion as set-out below:

Asset Consumption (1.2M/87.1M)	1.37%	
Asset Renewal (0.37M/87.1M pa)	0.42%	
Annual Upgrade (Major Recon 0.323M/87.1M pa)	0.37%	
Sustainability Index 0.85/1.37		62%

5.2 Risk Management Plan

An assessment of risks associated with service delivery from infrastructure assets has identified critical risks to Council. The risk assessment process identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, develops a risk rating, evaluates the risk and develops a risk treatment plan for non-acceptable risks.

Critical risks, being those assessed as 'Very High' - requiring immediate corrective action and 'High' – requiring prioritised corrective action identified in the infrastructure risk management plan are summarised in Table 5.2.

Table 5.2. Critical Risks and Treatment Plans

Asset at Risk	What can Happen	Risk Rating (VH, H)	Risk Treatment Plan
Substructures	Foundation failure	M	Inspect, Monitor, Report and Planned Maintenance program.
Superstructure	Structural damage	H	Inspect, Monitor, Report and Planned Maintenance program.
Finishes & Fittings	General wear and tear	H	Inspect, Monitor, Report and Planned Maintenance program.
Services	System failure and Mechanical failure	H	Inspect, Monitor, Report and Planned Maintenance program.

The risk assessment process is furthered in the Building, Recreation and Open Space Risk Management Plan.

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.

5.3.1 Maintenance plan

Maintenance includes reactive, planned and cyclic maintenance work activities.

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 regular inspections. 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.

Maintenance expenditure trends are shown in Table 5.3.1

Table 5.3.1. Maintenance Expenditure Trends

Year	Maintenance Expenditure
2008/09	$803,000
2009/10	$839,000
2010/11	$824,000

Planned maintenance work is about 50% of total maintenance expenditure.

Maintenance expenditure levels are considered to be adequate to meet minimum service levels required. Future revision of this asset management plan will improve the linking of required maintenance expenditures with required service levels.

Future assessment and prioritisation of reactive and planned maintenance is undertaken at regular maintenance delivery program meetings are held between Assets and Infrastructure Planning and City Works and Services and Recreational/ Community Services divisions within Council. The aim of the meeting is to synchronise priorities, such that the maintenance program is managed within the levels of service and resources available. To ensure the effectiveness of this program, it is essential that these meetings are formally conducted and actioned appropriately.

5.3.2 Standards and specifications

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

- Building Code of Australia
- Australian Standards
- Manufacturer's requirements for proprietary products

5.3.3 Future maintenance expenditures

Future maintenance expenditure is a function of growth, industry cost factors, amount of renewal and unplanned events.

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

Maintenance is funded from Council'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 existing service potential. Work over and above restoring an asset to original service potential is upgrade or new works expenditure.

5.4.1 Renewal plan

Assets requiring renewal are identified from estimates of remaining life obtained from the asset register worksheets and the *'Building Works Model' (*Appendix B*)*. 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 and scheduled in future works programmes. The priority ranking criteria is detailed in Table 5.4.1.

Table 5.4.1 Renewal Priority Ranking Criteria

Criteria	Weighting
Fit for purpose – Public usage	25%
The age of the assets	15%
The condition of the asset services	30%
The ongoing maintenance demand	30%
Total	100%

Renewal will be undertaken using 'low-cost' renewal methods where practical. The aim of 'low-cost' renewals is to restore the service potential or future economic benefits of the asset by renewing the assets at a cost less than replacement cost.

5.4.2 Renewal standards

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

- Building Code of Australia
- Australian Standards
- Project-specific Technical Specifications

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 used to estimate 75 year renewal costs and useful life are summarised in Fig 5. Note that any costs are shown in current 2009/10 dollar values.

The projected capital renewal program is shown in Appendix B.

Fig 5. Projected Capital Renewal Useful Life

Building Categories	Frequency (Years Average)					
	District	Community Halls	Libraries	Childcare	Amenities	Toilets
Renewal Activity Building						
Substructures	50	50	50	50	50	50
Superstructures	50	30	50	30	50	50
Finishes & Fittings	25	20	30	20	20	20
Services	25	40	40	40	40	30
Building Categories	**Frequency (Years Average)**					
	Sheds	Grandstands	Kiosks	Misc.	Aquatic	
Renewal Activity Building						
Substructures	50	50	50	50	50	
Superstructures	50	50	50	50	50	
Finishes & Fittings	20	20	20	20	20	
Services	30	30	40	30	30	

Applying the above table to each building and it component has derived a model of consumption for the building stock. This model predicts a total renewal budget (annualised) of **$760,000 per annum is required.**

A detailed list of the 75 year Building Works Model is in Appendix B

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 Council'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 Council from land development. These assets from growth are considered in Section 4.4.

5.5.1 Selection criteria

New assets and upgrade/expansion of existing assets are identified from various sources such as councillor 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 and scheduled in future works programmes or from development contributions.

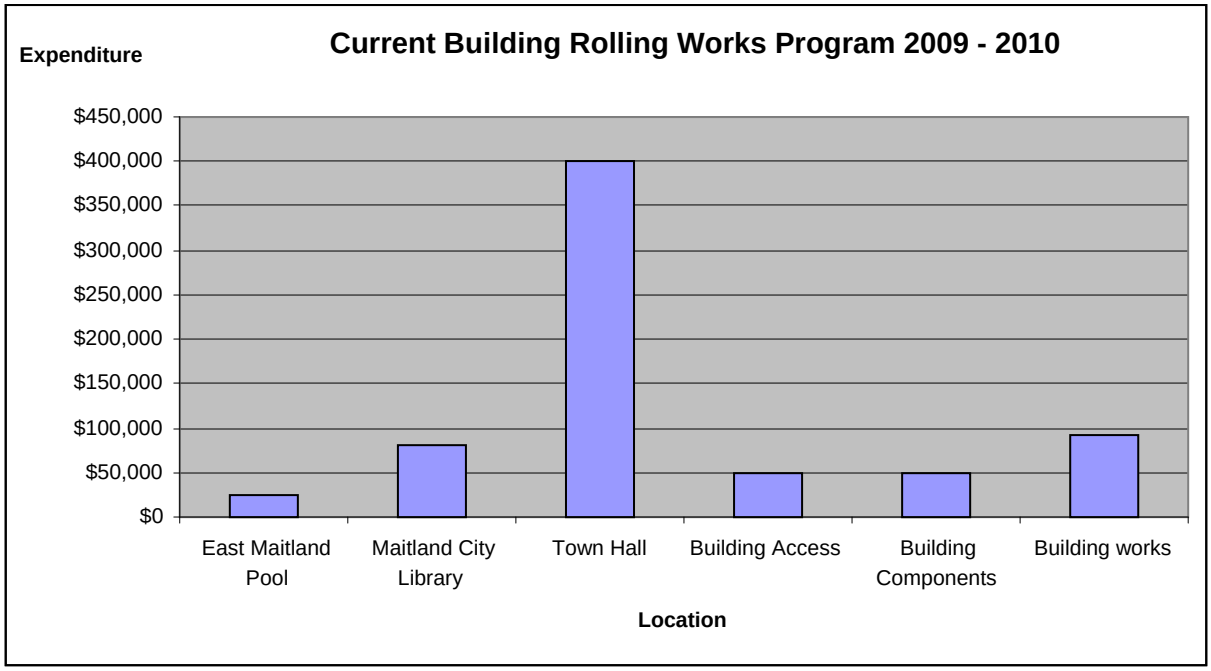
5.5.2 Standards and specifications

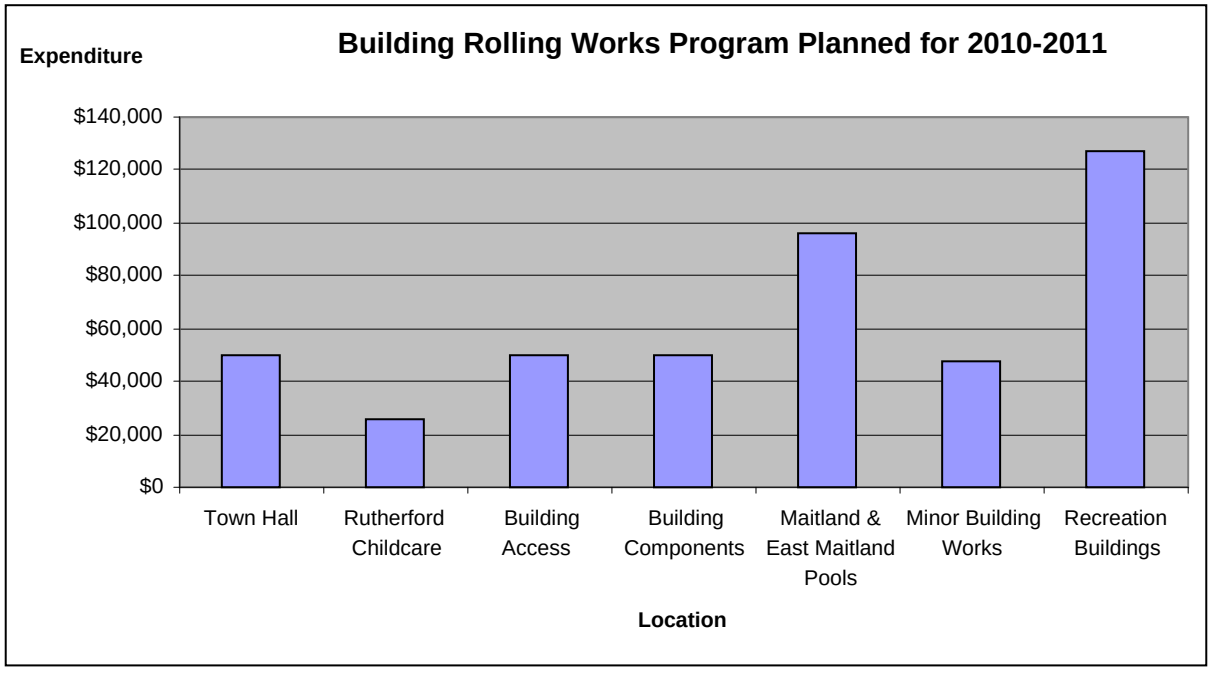
Standards and specifications for new assets and for upgrade/expansion of existing assets are the same as those for renewal shown in Section 5.4.2.

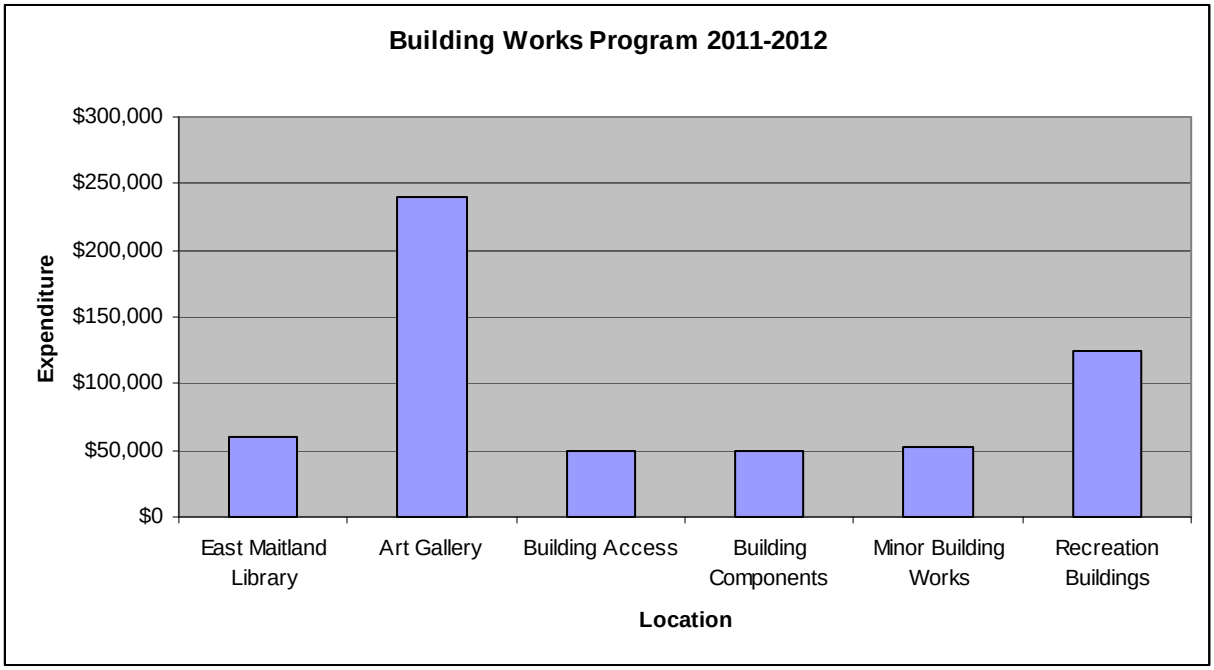
5.5.3 Summary of future upgrade/new assets expenditure

Planned upgrade/new asset expenditures are summarised in Fig 6. The planned upgrade/new capital works program is shown in Appendix C. All costs are shown in current 2009-2010 dollar values.

Fig 6. Planned Capital Upgrade/New Asset Expenditure







New assets and services are to be funded from Council'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.

Rationalisation of buildings and the services they provide will be considered in future development of this plan.

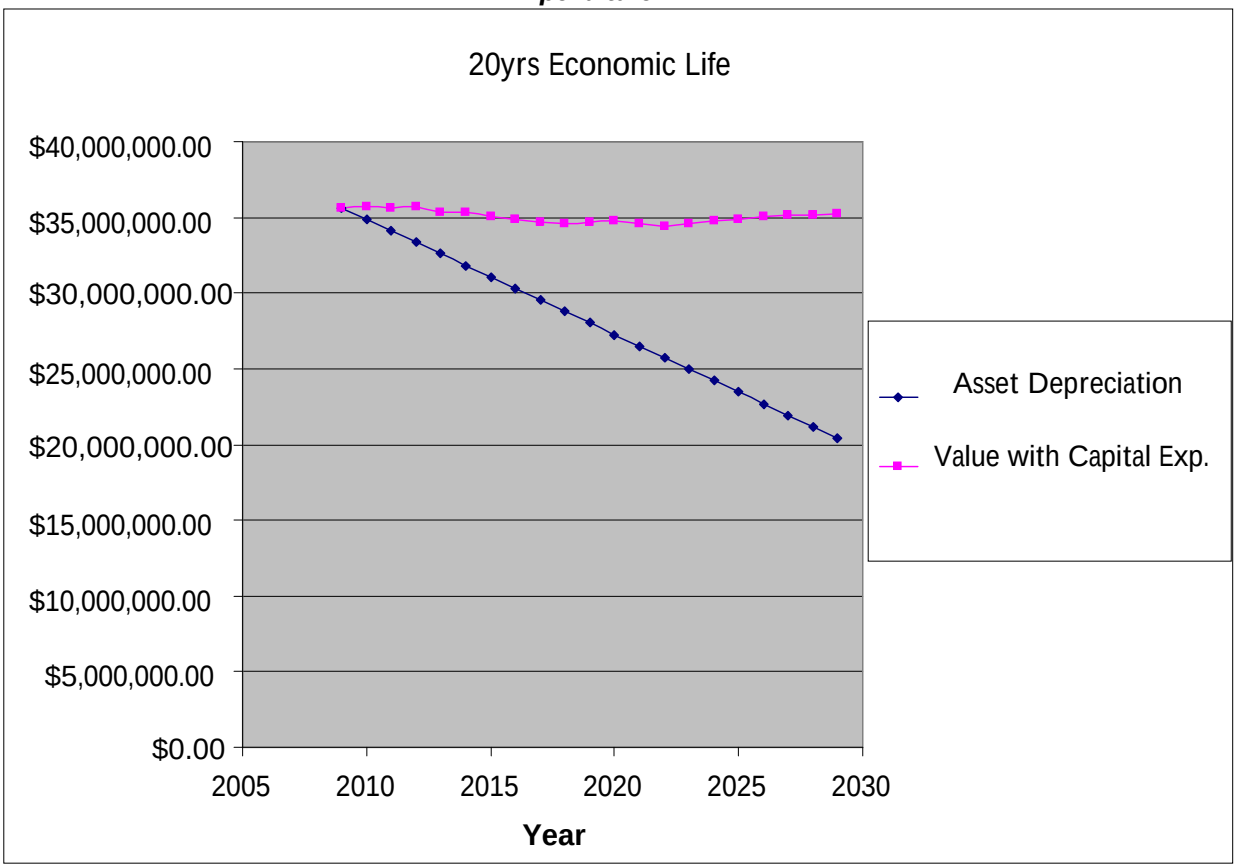
6. FINANCIAL SUMMARY

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 Fig 7 for planned operating (operations and maintenance) and capital expenditure (renewal and upgrade/expansion/new assets).

Fig 7. Planned Operating and Capital Expenditure



Note that all costs are shown in current 2009/10 dollar values.

6.1.1 Sustainability of service delivery

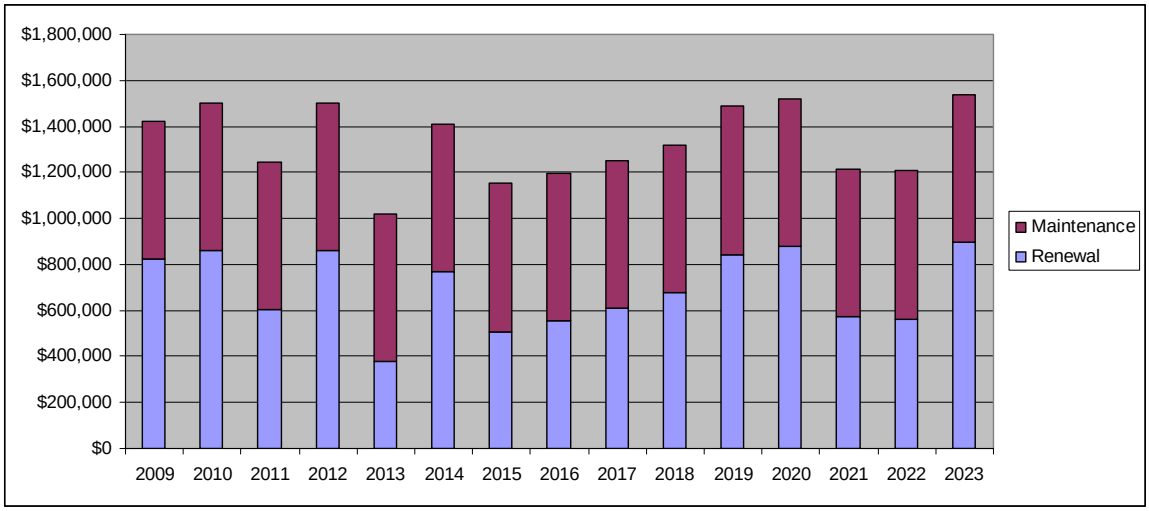
There are two key indicators for financial sustainability that have been considered in the analysis of the services provided by this asset category, these being long term life cycle costs and medium term costs over the 15 year financial planning period.

Medium term – 15 year financial planning period

This asset management plan identifies the estimated maintenance and capital expenditures required to provide a level of service to the community based on the 75 year model in Appendix B.

A 15 year forecast of costs has been determined for input into Council's financial and revenue plan to provide the service in a sustainable manner. See figure 8 for a detailed financial outlook.

Fig 8. Projected Budget 15years



	2009	2010	2011	2012	2013	2014	2015
Renewal	$823,022	$861,324	$603,776	$860,940	$379,630	$765,827	$509,466
Maintenance	$598,267	$642,275	$642,275	$642,275	$642,275	$642,275	$642,275
TOTAL	$1,421,289	$1,503,599	$1,246,051	$1,503,215	$1,021,905	$1,408,102	$1,151,741

	2016	2017	2018	2019	2020	2021	2022	2023
Renewal	$552,537	$608,573	$678,028	$843,523	$876,934	$572,194	$564,282	$896,443
Maintenance	$642,275	$642,275	$642,275	$642,275	$642,275	$642,275	$642,275	$642,275
TOTAL	$1,194,813	$1,250,848	$1,320,303	$1,485,798	$1,519,210	$1,214,469	$1,206,557	$1,538,718

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.

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

7. PLAN IMPROVEMENT AND MONITORING

7.1 Performance Measures

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

- The degree to which the required cash flow identified in this asset management plan are incorporated into council's long term financial plan and Strategic Management Plan;
- The degree to which 1-4 year detailed works programs, budgets, business plans and organisational structures take into account the 'global' works program trends provided by the asset management plan.

7.2 Improvement Plan

The asset management improvement plan generated from this asset management plan is shown in Table 7.2.

Table 7.2 Improvement Plan

Task No	Task	Responsibility	Resources Required	Timeline
1.	Monitor Building Maintenance Activities	Asset	Internal	TBA
2.	Monitor Building Renewal Program	Asset	Internal	TBA
3.	Monitor Building Upgrade / Expansion Program	Asset	Internal	TBA
4.	Monitor Building Safety	Asset	Internal	TBA
5.	Monitor Building Access and Egress	Asset	Internal	TBA
6.	Building Utilisation – investigate rationalisation of building stock and usage patterns	Asset	Internal	TBA

7.3 Monitoring and Review Procedures

This asset management plan will be reviewed during annual budget preparation 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.

The Plan has a life of 4 years and is due for revision and updating within 2 years of each Council election.

REFERENCES

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

BUILDING RENEWAL PLAN 75YRS

MARCH 2011

Building Name	Construction Type	Element Total	Renewal	Year Constructed	Age	Rating	Replacement Cost Current State	Depreciation Value																																																																														
Element	Unit Rate	Percentage	Percentage		Yrs		Frequency		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083			
Admin Building	Concrete Brick Steel			1983	26	3	$ 5,106,000.00																																																																											Total	Subtotal	Annually
Replacement	$ 5,106,000.00																																																																																	$ -		
Substructure	$ 142,968.00	2.80%	33.30%				50yrs																								I																																																	I	$ 95,216.69		
Superstructure	$ 2,297,700.00	45.00%	10.00%				50yrs																								I																																																I		$ 459,540.00		
Fittings - Fitout	$ 331,890.00	6.50%	50.00%				30yrs					I																																I																												I											$ 497,835.00		
Services	$ 2,333,442.00	45.70%	25.00%				20yrs						I																				I																				I																				I										$ 2,333,442.00		
Depreciation Value								$ 2,467,310.00																																																																										$ -	$ 3,386,033.69	$ 45,147.12
Town Hall	Concrete Brick Timber Steel Asbestos			1930	79	3	$ 16,298,203.00																																																																													
Replacement	$ 16,298,203.00		0.50%																																																																															$ -		
Substructure	$ 603,033.51	3.70%	33.30%				50yrs																					I																																																	I				$ 401,620.32		
Superstructure	$ 7,122,314.71	43.70%	10.00%				25yrs																							I																									I																									I			$ 2,136,694.41		
Fittings - Fitout	$ 2,461,028.65	15.10%	15.00%				10yrs								I										I										I										I							I													I										I								$ 2,584,080.09		
Services	$ 6,111,826.13	37.50%	10.00%				10yrs											I										I										I										I								I												I										I					$ 4,278,278.29		
Depreciation Value								$ 3,238,684.00																																																																										$ -	$ 9,400,673.10	$ 125,342.31
Maitland Visitors Centre	Concrete Brick Timber Steel			1997	12	4	$ 854,000.00																																																																													
Replacement	$ 854,000.00																																																																																	$ -		
Substructure	$ 25,620.00	3.00%	33.30%				50yrs																																						I																																						$ 8,531.46		
Superstructure	$ 307,440.00	36.00%	10.00%				50yrs																																						I																																						$ 30,744.00		
Fittings - Fitout	$ 68,320.00	8.00%	50.00%				30yrs																			I																														I																											$ 68,320.00		
Services	$ 452,620.00	53.00%	50.00%				40yrs																													I																																								I							$ 452,620.00		
Depreciation Value								$ 432,693.33																																																																										$ -	$ 560,215.46	$ 7,469.54
Maitland Regional Art Gallery	Concrete Brick Timber Steel Slate			1911	98	5	$ 12,886,071.95																																																																													
Replacement	$ 12,886,071.95																																																																																	$ -		
Substructure	$ 515,442.88	4.00%	33.30%				50yrs																																																			I																									$ 171,642.48		
Superstructure	$ 5,412,150.22	42.00%	10.00%				50yrs																																																								I																				$ 541,215.02		
Fittings - Fitout	$ 2,061,771.51	16.00%	32.00%				20yrs																I																							I																					I																$ 1,979,300.65		
Services	$ 4,896,707.34	38.00%	15.00%				20yrs															I																				I																				I																				I	$ 2,938,024.40		
Depreciation Value								$ 6,237,230.67																																																																										$ -	$ 5,630,182.56	$ 75,069.10
Morpeth Court House	Concrete Brick Timber Slate			1862	147	2	$ 3,893,000.00																																																																													
Replacement	$ 3,893,000.00																																																																																	$ -		
Substructure	$ 147,934.00	3.80%	33.30%				50yrs			I																																																		I																							$ 98,524.04		
Superstructure	$ 1,732,385.00	44.50%	20.00%				30yrs				I																																																	I																							$ 692,954.00		
Fittings - Fitout	$ 525,555.00	13.50%	50.00%				20yrs													I																					I																				I																				I		$ 1,051,110.00		
Services	$ 1,487,126.00	38.20%	25.00%				20yrs										I																				I																				I																				I						$ 1,487,126.00		
Depreciation Value								$ 3,181,359.60																																																																										$ -	$ 3,329,714.04	$ 44,396.19
Metford Community Centre	Concrete Brick Timber Steel			1986	23	3	$ 539,000.00																																																																													
Replacement	$ 539,000.00																																																																																	$ -		
Substructure	$ 18,865.00	3.50%	33.30%				50yrs																												I																																														I		$ 12,564.09		
Superstructure	$ 204,820.00	38.00%	10.00%				30yrs							I																															I																														I								$ 61,446.00		
Fittings - Fitout	$ 86,240.00	16.00%	50.00%				20yrs																	I																					I																					I																	$ 129,360.00		
Services	$ 229,075.00	42.50%	50.00%				40yrs																	I																																								I																			$ 229,075.00		
Depreciation Value								$ 140,140.00																																																																										$ -	$ 432,445.09	$ 5,765.93
Rutherford Community Centre	Concrete Brick Steel			1995	14	5	$ 1,012,609.36																																																																													
Replacement	$ 1,012,609.36																																																																																	$ -		
Substructure	$ 40,504.37	4.00%	33.30%				50yrs																																					I																																							$ 13,487.96		
Superstructure	$ 425,295.93	42.00%	10.00%				30yrs																	I																														I																													$ 85,059.19		
Fittings - Fitout	$ 162,017.50	16.00%	50.00%				20yrs							I																				I																		I																						I									$ 324,035.00		
Services	$ 384,791.56	38.00%	50.00%				40yrs																											I																																								I									$ 384,791.56		
Depreciation Value								$ 507,362.21																																																																										$ -	$ 807,373.69	$ 10,764.98
Maitland Senior Citizens Centre	Concrete Brick Steel			1972	37	4	$ 1,031,400.00																																																																													
Replacement	$ 1,031,400.00																																																																																	$ -		
Substructure	$ 80,449.20	7.80%	33.30%																		I																																																		I												$ 53,579.17		
Superstructure	$ 476,506.80	46.20%	10.00%																		I																																																		I												$ 95,301.36		
Fittings - Fitout	$ 204,217.20	19.80%	50.00%																												I																														I																						$ 204,217.20		
Services	$ 270,226.80	26.20%	50.00%								I																																								I																																$ 270,226.80		
Depreciation Value								$ 514,539.20																																																																										$ -	$ 623,324.53	$ 8,310.99
Bruce St Community hall	Concrete Brick Timber Tiled			1970	39	4	$ -																																																																													
Replacement																																																																																		$ -		
Substructure																																																																																		$ -		
Superstructure																																																																																		$ -		
Fittings - Fitout																																																																																		$ -		
Services																																																																																		$ -		
Depreciation Value																																																																																		$ -	$ -	$ -
East Maitland Community Centre	Concrete Brick Timber Steel Slate			1859	150	2	$ 1,993,094.00																																																																													
Replacement	$ 1,993,094.00																																																																																	$ -		
Substructure	$ 63,779.01	3.20%	33.30%						I																																																	I																									$ 42,476.82		
Superstructure	$ 755,382.63	37.90%	20.00%							I																																																I																									$ 302,153.05		
Fittings - Fitout	$ 229,205.81	11.50%	50.00%						I																		I																							I																		I															$ 458,411.62		
Services	$ 944,726.56	47.40%	50.00%																						I																																								I																		$ 944,726.56		
Depreciation Value								$ 390,827.34																																																																										$ -	$ 1,747,768.05	$ 23,303.57
Thornton Community Hall	Concrete Brick Steel			1982	27	4	$ 578,000.00																																																																													
Replacement	$ 578,000.00																																																																																	$ -		
Substructure	$ 19,652.00	3.40%	33.30%				50yrs																								I																																																		I		$ 13,088.23		
Superstructure	$ 209,814.00	36.30%	10.00%				30yrs				I																														I																														I												$ 62,944.20		
Fittings - Fitout	$ 80,342.00	13.90%	50.00%				20yrs														I																			I																					I																				I		$ 160,684.00		
Services	$ 268,192.00	46.40%	50.00%				40yrs														I																																								I																						$ 268,192.00		
Depreciation Value								$ 281,293.33																																																																										$ -	$ 504,908.43	$ 6,732.11

Morpeth School of Arts	Concrete Brick Timber Steel			1859	150	2	$ 555,000.00				
Replacement	$ 555,000.00								$ -		
Substructure	$ 19,425.00	3.50%	33.30%						$ 12,937.05		
Superstructure	$ 210,900.00	38.00%	20.00%						$ 84,360.00		
Fittings - Fitout	$ 66,600.00	12.00%	50.00%						$ 99,900.00		
Services	$ 258,075.00	46.50%	50.00%						$ 258,075.00		
Depreciation Value								$ 67,200.00	$ -	$ 455,272.05	$ 6,070.29
Tenambit Community Hall	Concrete Brick Timber Steel			1969	40	3	$ 214,000.00				
Replacement	$ 214,000.00								$ -		
Substructure	$ 7,490.00	3.50%	33.30%				50yrs		$ 4,988.34		
Superstructure	$ 81,320.00	38.00%	10.00%				30yrs		$ 16,264.00		
Fittings - Fitout	$ 25,680.00	12.00%	50.00%				20yrs		$ 38,520.00		
Services	$ 99,510.00	46.50%	50.00%				40yrs		$ 49,755.00		
Depreciation Value								$ 104,146.67	$ -	$ 109,527.34	$ 1,460.36
St. Ethel's Band Buildings	Concrete Brick Timber Steel			1882	127	2	$ 462,000.00				
Replacement	$ 462,000.00								$ -		
Substructure	$ 14,784.00	3.20%	33.30%						$ 9,846.14		
Superstructure	$ 175,560.00	38.00%	20.00%						$ 70,224.00		
Fittings - Fitout	$ 69,300.00	15.00%	50.00%						$ 138,600.00		
Services	$ 202,356.00	43.80%	50.00%						$ 202,356.00		
Depreciation Value								$ 70,840.00	$ -	$ 421,026.14	$ 5,613.68
Shamrock Hill Multi Purpose Centre	Concrete Brick Steel			1998	11	4	$ 627,770.00				
Replacement	$ 627,770.00								$ -		
Substructure	$ 50,221.60	8.00%	33.30%				50yrs		$ 16,723.79		
Superstructure	$ 298,818.52	47.60%	10.00%				30yrs		$ 29,881.85		
Fittings - Fitout	$ 128,065.08	20.40%	50.00%				20yrs		$ 256,130.16		
Services	$ 150,664.80	24.00%	50.00%				40yrs		$ 150,664.80		
Depreciation Value								$ 408,080.53	$ -	$ 453,400.60	$ 6,045.34
Woodberry Community Hall	Concrete Brick Timber Steel			1975	34	2	$ 492,000.00				
Replacement	$ 492,000.00								$ -		
Substructure	$ 17,220.00	3.50%	33.30%				50yrs		$ 11,468.52		
Superstructure	$ 186,960.00	38.00%	10.00%				30yrs		$ 37,392.00		
Fittings - Fitout	$ 83,640.00	17.00%	50.00%				20yrs		$ 167,280.00		
Services	$ 204,180.00	41.50%	50.00%				40yrs		$ 204,180.00		
Depreciation Value								$ 239,440.00	$ -	$ 420,320.52	$ 5,604.27
Maitland Youth Centre	Concrete Brick Timber Steel Asbestos			1970	39	2	$ 1,600,000.00				
Replacement	$ 1,600,000.00								$ -		
Substructure	$ 56,000.00	3.50%	33.30%				50yrs		$ 37,296.00		
Superstructure	$ 608,000.00	38.00%	10.00%				50yrs		$ 121,600.00		
Fittings - Fitout	$ 272,000.00	17.00%	20.00%				20yrs		$ 217,600.00		
Services	$ 664,000.00	41.50%	20.00%				40yrs		$ 265,600.00		
Depreciation Value								$ 795,000.00	$ -	$ 642,096.00	$ 8,561.28
Woodberry Family Centre	Concrete Brick Timber Steel			2005	4	5	$ 1,321,767.74				
Replacement	$ 1,321,767.74								$ -		
Substructure	$ 93,845.51	7.10%	33.30%				50yrs		$ 31,250.55		
Superstructure	$ 552,498.92	41.80%	10.00%				30yrs		$ 110,499.78		
Fittings - Fitout	$ 237,918.19	18.00%	50.00%				20yrs		$ 356,877.29		
Services	$ 437,505.12	33.10%	50.00%				40yrs		$ 218,752.56		
Depreciation Value								$ 237,533.33	$ -	$ 717,380.19	$ 9,565.07
Kookaburra Korner Child Care Centre	Concrete Brick Timber Steel			1987	22	3	$ 900,000.00				
Replacement	$ 900,000.00								$ -		
Substructure	$ 31,500.00	3.50%	33.30%				50yrs		$ 10,489.50		
Superstructure	$ 342,000.00	38.00%	10.00%				30yrs		$ 102,600.00		
Fittings - Fitout	$ 153,000.00	17.00%	50.00%				20yrs		$ 229,500.00		
Services	$ 373,500.00	41.50%	50.00%				40yrs		$ 373,500.00		
Depreciation Value								$ 437,400.00	$ -	$ 716,089.50	$ 9,547.86
Metford Child Care Centre	Concrete Brick Timber Steel			1984	25	3	$ 920,000.00				
Replacement	$ 920,000.00								$ -		
Substructure	$ 32,200.00	3.50%	33.30%				50yrs		$ 10,722.60		
Superstructure	$ 349,600.00	38.00%	10.00%				30yrs		$ 104,880.00		
Fittings - Fitout	$ 156,400.00	17.00%	50.00%				20yrs		$ 234,600.00		
Services	$ 381,800.00	41.50%	50.00%				40yrs		$ 381,800.00		
Depreciation Value								$ 447,733.33	$ -	$ 732,002.60	$ 9,760.03
Shamrock Hill Child Care Centre	Concrete Brick Steel			1998	11	4	$ 627,770.00				
Replacement	$ 627,770.00								$ -		
Substructure	$ 50,221.60	8.00%	33.30%				50yrs		$ 16,723.79		
Superstructure	$ 298,818.52	47.60%	10.00%				30yrs		$ 59,763.70		
Fittings - Fitout	$ 128,065.08	20.40%	50.00%				20yrs		$ 256,130.16		
Services	$ 150,664.80	24.00%	50.00%				40yrs		$ 150,664.80		
Depreciation Value								$ 408,080.53	$ -	$ 483,282.46	$ 6,443.77
Thornton Child Care Centre	Concrete Brick Timber Steel			1987	22	3	$ 600,000.00				
Replacement	$ 600,000.00								$ -		
Substructure	$ 21,000.00	3.50%	33.30%				50yrs		$ 6,993.00		
Superstructure	$ 228,000.00	38.00%	10.00%				30yrs		$ 68,400.00		
Fittings - Fitout	$ 102,000.00	17.00%	50.00%				20yrs		$ 153,000.00		
Services	$ 249,000.00	41.50%	50.00%				40yrs		$ 249,000.00		
Depreciation Value								$ 292,000.00	$ -	$ 477,393.00	$ 6,365.24
Maitland City Library	Concrete Brick Timber Steel			1968	41	3	$ 1,834,409.09				
Replacement	$ 1,834,409.00								$ -		
Substructure	$ 69,707.54	3.80%	33.30%				50yrs		$ 46,425.22		
Superstructure	$ 794,299.10	43.30%	10.00%				50yrs		$ 158,859.82		
Fittings - Fitout	$ 284,333.40	15.50%	50.00%				30yrs		$ 284,333.40		
Services	$ 686,068.97	37.40%	50.00%				40yrs		$ 343,034.48		

Depreciation Value								$ 610,426.26	$ -	$ 832,652.92	$ 11,102.04
Thornton Library	Concrete Brick Steel			1999	10	4	$ 700,350.00				
Replacement	$ 700,350.00								$ -		
Substructure	$ 27,313.65	3.90%	33.30%				50yrs		$ 9,095.45		
Superstructure	$ 292,045.95	41.70%	10.00%				50yrs		$ 29,204.60		
Fittings - Fitout	$ 112,056.00	16.00%	50.00%				30yrs		$ 112,056.00		
Services	$ 268,934.40	38.40%	50.00%				40yrs		$ 268,934.40		
Depreciation Value								$ 452,696.71	$ -	$ 419,290.44	$ 5,590.54
Rutherford Library	Concrete Brick Steel			2004	5	5	$ 550,000.00				
Replacement	$ 555,000.00								$ -		
Substructure	$ 18,870.00	3.40%	33.30%				50yrs		$ 6,283.71		
Superstructure	$ 203,130.00	36.60%	10.00%				50yrs		$ 20,313.00		
Fittings - Fitout	$ 78,255.00	14.10%	50.00%				30yrs		$ 78,255.00		
Services	$ 254,745.00	45.90%	50.00%				40yrs		$ 127,372.50		
Depreciation Value								$ 219,500.00	$ -	$ 232,224.21	$ 3,096.32
East Maitland Library	Concrete Brick Steel			2004	5	5	$ 1,783,500.00				
Replacement	$ 1,783,500.00								$ -		
Substructure	$ 69,556.50	3.90%	33.30%				50yrs		$ 23,162.31		
Superstructure	$ 743,719.50	41.70%	10.00%				50yrs		$ 74,371.95		
Fittings - Fitout	$ 276,442.50	15.50%	50.00%				30yrs		$ 276,442.50		
Services	$ 667,029.00	37.40%	50.00%				40yrs		$ 333,514.50		
Depreciation Value								$ 559,517.17	$ -	$ 707,491.26	$ 9,433.22
Maitland Aquatic Centre	Concrete Brick Timber Steel			1940	69	4	$ 1,880,400.00				
Replacement	$ 1,880,400.00		0.50%						$ 695,748.00		
Substructure	$ 188,040.00	10.00%	33.30%				50yrs		$ 62,617.32		
Superstructure	$ 940,200.00	50.00%	10.00%				50yrs		$ 94,020.00		
Fittings - Fitout	$ 282,060.00	15.00%	33.30%				20yrs		$ 281,777.94		
Services	$ 470,100.00	25.00%	33.30%				30yrs		$ 313,086.60		
Depreciation Value								$ 903,650.80	$ -	$ 1,447,249.86	$ 19,296.66
East Maitland Aquatic Centre	Concrete Brick Timber Steel			1977	32	4	$ 1,000,000.00				
Replacement	$ 1,000,000.00		0.50%						$ 370,000.00		
Substructure	$ 100,000.00	10.00%	33.30%				50yrs		$ 33,300.00		
Superstructure	$ 500,000.00	50.00%	10.00%				50yrs		$ 50,000.00		
Fittings - Fitout	$ 150,000.00	15.00%	33.30%				20yrs		$ 199,800.00		
Services	$ 250,000.00	25.00%	33.30%				30yrs		$ 166,500.00		
Depreciation Value								$ 486,666.67	$ -	$ 819,600.00	$ 10,928.00
Smythe Field Amenities Building	Concrete Brick Timber Steel			1999	10	4	$ 363,400.00				
Replacement	$ 363,400.00		0.50%						$ 134,458.00		
Substructure	$ 36,340.00	10.00%	33.30%				50yrs		$ 12,101.22		
Superstructure	$ 181,700.00	50.00%	10.00%				50yrs		$ 18,170.00		
Fittings - Fitout	$ 54,510.00	15.00%	33.00%				20yrs		$ 71,953.20		
Services	$ 90,850.00	25.00%	33.00%				30yrs		$ 59,961.00		
Depreciation Value								$ 267,462.40	$ -	$ 296,643.42	$ 3,955.25
Morpeth Park Amenities Building	Concrete Brick Timber Steel			2001	8	4	$ 300,000.00				
Replacement	$ 300,000.00		0.50%						$ 111,000.00		
Substructure	$ 30,000.00	10.00%	33.30%				50yrs		$ 9,990.00		
Superstructure	$ 150,000.00	50.00%	10.00%				50yrs		$ 15,000.00		
Fittings - Fitout	$ 45,000.00	15.00%	33.00%				20yrs		$ 59,400.00		
Services	$ 75,000.00	25.00%	33.00%				30yrs		$ 49,500.00		
Depreciation Value								$ 221,000.00	$ -	$ 244,890.00	$ 3,265.20
Beryl Humble Amenities Building	Concrete Brick Timber Steel			1982	27	3	$ 735,000.00				
Replacement	$ 735,000.00		0.50%						$ 271,950.00		
Substructure	$ 73,500.00	10.00%	33.30%				50yrs		$ 24,475.50		
Superstructure	$ 367,500.00	50.00%	10.00%				50yrs		$ 36,750.00		
Fittings - Fitout	$ 110,250.00	15.00%	33.00%				20yrs		$ 109,147.50		
Services	$ 183,750.00	25.00%	33.00%				30yrs		$ 181,912.50		
Depreciation Value								$ 357,000.00	$ -	$ 624,235.50	$ 8,323.14
Tenambit Oval Pavillion	Concrete Brick Steel			1965	44	3	$ 625,000.00				
Replacement	$ 625,000.00		0.50%						$ 231,250.00		
Substructure	$ 62,500.00	10.00%	33.30%				50yrs		$ 41,625.00		
Superstructure	$ 312,500.00	50.00%	10.00%				50yrs		$ 62,500.00		
Fittings - Fitout	$ 93,750.00	15.00%	33.00%				20yrs		$ 92,812.50		
Services	$ 156,250.00	25.00%	33.00%				30yrs		$ 103,125.00		
Depreciation Value								$ 304,166.67	$ -	$ 531,312.50	$ 7,084.17
Maitland Park Netball Amenities Building	Concrete Brick Timber Steel			1980	29	4	$ 740,053.52				
Replacement	$ 740,053.52		0.50%						$ 273,819.80		
Substructure	$ 28,862.09	3.90%	33.30%				50yrs		$ 19,222.15		
Superstructure	$ 308,602.32	41.70%	10.00%				50yrs		$ 61,720.46		
Fittings - Fitout	$ 114,708.30	15.50%	50.00%				20yrs		$ 229,416.59		
Services	$ 276,780.02	37.40%	50.00%				30yrs		$ 415,170.02		
Depreciation Value								$ 386,365.15	$ -	$ 999,349.03	$ 13,324.65
Maitland Park Croquet Clubhouse	Concrete Brick Timber Steel			1997	12	4	$ 95,000.00				
Replacement	$ 95,000.00		0.50%						$ 35,150.00		
Substructure	$ 3,325.00	3.50%	33.00%				50yrs		$ 1,097.25		
Superstructure	$ 36,100.00	38.00%	10.00%				50yrs		$ 3,610.00		
Fittings - Fitout	$ 16,150.00	17.00%	50.00%				20yrs		$ 32,300.00		
Services	$ 39,425.00	41.50%	50.00%				30yrs		$ 59,137.50		
Depreciation Value								$ 46,233.33	$ -	$ 131,294.75	$ 1,750.60
Maitland Park Touch Football Change Rooms	Concrete Brick Timber Steel			1971	38	3	$ 383,000.00				

Replacement	$ 383,000.00		0.50%						$ 141,710.00		
Substructure	$ 38,300.00	10.00%	33.30%				50yrs		$ 25,507.80		
Superstructure	$ 191,500.00	50.00%	10.00%				50yrs		$ 38,300.00		
Fittings - Fitout	$ 57,450.00	15.00%	33.30%				20yrs		$ 76,523.40		
Services	$ 95,750.00	25.00%	33.30%				30yrs		$ 63,769.50		
Depreciation Value								$ 185,893.33	$ -	$ 345,810.70	$ 4,610.81
Maitland Park Pavillion Building	Concrete Brick Timber Steel			1960	49	3	$ 172,000.00				
Replacement	$ 172,000.00		0.50%						$ 63,640.00		
Substructure	$ 17,200.00	10.00%	33.30%				50yrs		$ 11,455.20		
Superstructure	$ 86,000.00	50.00%	10.00%				50yrs		$ 17,200.00		
Fittings - Fitout	$ 25,800.00	15.00%	33.30%				20yrs		$ 34,365.60		
Services	$ 43,000.00	25.00%	33.30%				30yrs		$ 42,957.00		
Depreciation Value								$ 84,853.33	$ -	$ 169,617.80	$ 2,261.57
Lorn Park Change Rooms	Concrete Brick Timber Steel			1987	22	3	$ 473,000.00				
Replacement	$ 473,000.00		0.50%						$ 175,010.00		
Substructure	$ 47,300.00	10.00%	33.30%				50yrs		$ 15,750.90		
Superstructure	$ 236,500.00	50.00%	10.00%				50yrs		$ 23,650.00		
Fittings - Fitout	$ 70,950.00	15.00%	33.30%				20yrs		$ 70,879.05		
Services	$ 118,250.00	25.00%	33.30%				30yrs		$ 118,131.75		
Depreciation Value								$ 230,193.33	$ -	$ 403,421.70	$ 5,378.96
Largs Park Amenities Building	Concrete Brick Timber Steel			1970	39	4	$ 410,000.00				
Replacement	$ 410,000.00		0.50%						$ 151,700.00		
Substructure	$ 41,000.00	10.00%	33.30%				50yrs		$ 27,306.00		
Superstructure	$ 205,000.00	50.00%	10.00%				50yrs		$ 41,000.00		
Fittings - Fitout	$ 61,500.00	15.00%	33.30%				20yrs		$ 81,918.00		
Services	$ 102,500.00	25.00%	33.30%				30yrs		$ 68,265.00		
Depreciation Value								$ 199,533.33	$ -	$ 370,189.00	$ 4,935.85
Bolwarra Sporting Complex Amenities Building	Concrete Brick Timber Steel			1983	26	3	$ 546,000.00				
Replacement	$ 546,000.00		0.50%						$ 202,020.00		
Substructure	$ 54,600.00	10.00%	33.30%				50yrs		$ 36,363.60		
Superstructure	$ 273,000.00	50.00%	10.00%				50yrs		$ 54,600.00		
Fittings - Fitout	$ 81,900.00	15.00%	33.30%				20yrs		$ 109,090.80		
Services	$ 136,500.00	25.00%	33.30%				30yrs		$ 136,363.50		
Depreciation Value								$ 262,080.00	$ -	$ 538,437.90	$ 7,179.17
Coronation Oval Amenities Building	Concrete Brick Timber Steel			1995	14	4	$ 282,000.00				
Replacement	$ 282,000.00		0.50%						$ 104,340.00		
Substructure	$ 28,200.00	10.00%	33.30%				50yrs		$ 9,390.60		
Superstructure	$ 141,000.00	50.00%	10.00%				50yrs		$ 14,100.00		
Fittings - Fitout	$ 42,300.00	15.00%	33.30%				20yrs		$ 56,343.60		
Services	$ 70,500.00	25.00%	33.30%				30yrs		$ 46,953.00		
Depreciation Value								$ 137,240.00	$ -	$ 231,127.20	$ 3,081.70
Rutherford Oval Amenities Building	Concrete Brick Timber Steel			1965	44	3	$ 978,000.00				
Replacement	$ 978,000.00		0.50%						$ 361,860.00		
Substructure	$ 97,800.00	10.00%	33.30%				50yrs		$ 65,134.80		
Superstructure	$ 489,000.00	50.00%	10.00%				50yrs		$ 97,800.00		
Fittings - Fitout	$ 146,700.00	15.00%	33.30%				20yrs		$ 146,553.30		
Services	$ 244,500.00	25.00%	33.30%				30yrs		$ 162,837.00		
Depreciation Value								$ 475,960.00	$ -	$ 834,185.10	$ 11,122.47
Norm Chapman Reserve Amenities Building	Concrete Brick Timber Steel			1982	27	4	$ 578,000.00				
Replacement	$ 578,000.00		0.50%						$ 213,860.00		
Substructure	$ 57,800.00	10.00%	33.30%				50yrs		$ 38,494.80		
Superstructure	$ 289,000.00	50.00%	10.00%				50yrs		$ 57,800.00		
Fittings - Fitout	$ 86,700.00	15.00%	33.30%				20yrs		$ 115,484.40		
Services	$ 144,500.00	25.00%	33.30%				30yrs		$ 144,355.50		
Depreciation Value								$ 281,293.33	$ -	$ 569,994.70	$ 7,599.93
Lochinvar Oval Amenities Building	Concrete Brick Timber Steel			1979	30	4	$ 530,000.00				
Replacement	$ 530,000.00		0.50%						$ 196,100.00		
Substructure	$ 53,000.00	10.00%	33.30%				50yrs		$ 35,298.00		
Superstructure	$ 265,000.00	50.00%	10.00%				50yrs		$ 53,000.00		
Fittings - Fitout	$ 79,500.00	15.00%	33.30%				20yrs		$ 105,894.00		
Services	$ 132,500.00	25.00%	33.30%				30yrs		$ 88,245.00		
Depreciation Value								$ 257,933.33	$ -	$ 478,537.00	$ 6,380.49
King Edward Park Amenities Building	Concrete Brick Timber Steel			1979	30	3	$ 482,000.00				
Replacement	$ 482,000.00		0.50%						$ 178,340.00		
Substructure	$ 48,200.00	10.00%	33.30%				50yrs		$ 32,101.20		
Superstructure	$ 241,000.00	50.00%	10.00%				50yrs		$ 48,200.00		
Fittings - Fitout	$ 72,300.00	15.00%	33.30%				20yrs		$ 96,303.60		
Services	$ 120,500.00	25.00%	33.30%				30yrs		$ 120,379.50		
Depreciation Value								$ 234,573.33	$ -	$ 475,324.30	$ 6,337.66
Cooks Square Park Amenities Building	Concrete Brick Timber Steel			1972	37	3	$ 360,000.00				
Replacement	$ 360,000.00		0.50%						$ 133,200.00		
Substructure	$ 36,000.00	10.00%	33.30%				50yrs		$ 23,976.00		
Superstructure	$ 180,000.00	50.00%	10.00%				50yrs		$ 36,000.00		
Fittings - Fitout	$ 54,000.00	15.00%	33.30%				20yrs		$ 71,928.00		
Services	$ 90,000.00	25.00%	33.30%				30yrs		$ 59,940.00		
Depreciation Value								$ 175,200.00	$ -	$ 325,044.00	$ 4,333.92
Shamrock Hill Oval Amenities Building	Concrete Brick Timber Steel			2000	9	4	$ 594,000.00				
Replacement	$ 594,000.00		0.50%						$ 219,780.00		

Substructure	$ 59,400.00	10.00%	33.30%					50yrs		I	$ 19,780.20		
Superstructure	$ 297,000.00	50.00%	10.00%					50yrs		I	$ 29,700.00		
Fittings - Fitout	$ 89,100.00	15.00%	33.30%					20yrs		I I I I	$ 118,681.20		
Services	$ 148,500.00	25.00%	33.30%					30yrs		I I	$ 98,901.00		
Depreciation Value									$ 289,080.00		$ -	$ 486,842.40	$ 6,491.23
Fieldsend Oval Amenities Building	Concrete Brick Timber Steel			1983	26	4	$ 546,000.00						
Replacement	$ 546,000.00		0.50%							I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I	$ 202,020.00		
Substructure	$ 54,600.00	10.00%	33.30%					50yrs		I I	$ 36,363.60		
Superstructure	$ 273,000.00	50.00%	10.00%					50yrs		I I	$ 54,600.00		
Fittings - Fitout	$ 81,900.00	15.00%	33.30%					20yrs		I I I I	$ 109,090.80		
Services	$ 136,500.00	25.00%	33.30%					30yrs		I I I	$ 136,363.50		
Depreciation Value									$ 262,080.00		$ -	$ 538,437.90	$ 7,179.17
Metford Reserve Amenities Building	Concrete Brick Timber Steel			1996	13	4	$ 330,000.00						
Replacement	$ 393,300.00		0.50%							I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I	$ 145,521.00		
Substructure	$ 39,330.00	10.00%	33.30%					50yrs		I	$ 13,096.89		
Superstructure	$ 196,650.00	50.00%	10.00%					50yrs		I	$ 19,665.00		
Fittings - Fitout	$ 58,995.00	15.00%	33.30%					20yrs		I I I I	$ 78,581.34		
Services	$ 98,325.00	25.00%	33.30%					30yrs		I I	$ 65,484.45		
Depreciation Value									$ 190,750.50		$ -	$ 322,348.68	$ 4,297.98
Thornton Park Clubhouse & Amenities Building	Concrete Brick Timber Steel			1994	15	3	$ 160,000.00						
Replacement	$ 160,000.00		0.50%							I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I	$ 59,200.00		
Substructure	$ 5,600.00	3.50%	33.30%					50yrs		I	$ 1,864.80		
Superstructure	$ 60,800.00	38.00%	10.00%					50yrs		I	$ 6,080.00		
Fittings - Fitout	$ 27,200.00	17.00%	33.30%					20yrs		I I I I	$ 36,230.40		
Services	$ 66,400.00	41.50%	33.30%					30yrs		I I	$ 44,222.40		
Depreciation Value									$ 79,200.00		$ -	$ 147,597.60	$ 1,967.97
Thornton Park Amenities Building	Concrete Brick Timber Steel			1981	28	3	$ 395,000.00						
Replacement	$ 395,000.00		0.50%							I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I	$ 146,150.00		
Substructure	$ 39,500.00	10.00%	33.30%					50yrs		I I	$ 26,307.00		
Superstructure	$ 197,500.00	50.00%	10.00%					50yrs		I I	$ 39,500.00		
Fittings - Fitout	$ 59,250.00	15.00%	33.30%					20yrs		I I I I	$ 78,921.00		
Services	$ 98,750.00	25.00%	33.30%					30yrs		I I I	$ 98,651.25		
Depreciation Value									$ 192,233.33		$ -	$ 389,529.25	$ 5,193.72
Allan & Don Lawrence Oval Amenities Building	Concrete Brick Timber Steel			1980	29	4	$ 660,000.00						
Replacement	$ 660,000.00		0.50%							I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I	$ 244,200.00		
Substructure	$ 66,000.00	10.00%	33.30%					50yrs		I I	$ 43,956.00		
Superstructure	$ 330,000.00	50.00%	10.00%					50yrs		I I	$ 66,000.00		
Fittings - Fitout	$ 99,000.00	15.00%	33.30%					20yrs		I I I I	$ 131,868.00		
Services	$ 165,000.00	25.00%	33.30%					30yrs		I I I	$ 164,835.00		
Depreciation Value									$ 321,200.00		$ -	$ 650,859.00	$ 8,678.12
Woodberry Oval Amenities Building	Concrete Brick Timber Steel			1970	39	3	$ 406,000.00						
Replacement	$ 406,000.00		0.50%							I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I	$ 150,220.00		
Substructure	$ 40,600.00	10.00%	33.30%					50yrs		I I	$ 27,039.60		
Superstructure	$ 203,000.00	50.00%	10.00%					50yrs		I I	$ 40,600.00		
Fittings - Fitout	$ 60,900.00	15.00%	33.30%					20yrs		I I I I	$ 81,118.80		
Services	$ 101,500.00	25.00%	33.30%					30yrs		I I	$ 67,599.00		
Depreciation Value									$ 197,586.67		$ -	$ 366,577.40	$ 4,887.70
Gillieston Hieghts Oval Amenties Building	Concrete Brick Timber Steel			1972	37	4	$ 190,000.00						
Replacement	$ 190,000.00		0.50%							I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I	$ 70,300.00		
Substructure	$ 19,000.00	10.00%	33.30%					50yrs		I I	$ 12,654.00		
Superstructure	$ 95,000.00	50.00%	10.00%					50yrs		I I	$ 19,000.00		
Fittings - Fitout	$ 28,500.00	15.00%	33.30%					20yrs		I I I I	$ 37,962.00		
Services	$ 47,500.00	25.00%	33.30%					30yrs		I I	$ 31,635.00		
Depreciation Value									$ 180,066.67		$ -	$ 171,551.00	$ 2,287.35
Victoria St Tennis Clubhouse	Concrete Brick Steel			1960	49	3	$ 1,064,687.35						
Replacement	$ 1,064,687.35		0.50%							I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I	$ 393,934.32		
Substructure	$ 37,264.06	3.50%	33.30%					50yrs		I I	$ 24,817.86		
Superstructure	$ 404,581.19	38.00%	10.00%					50yrs		I I	$ 80,916.24		
Fittings - Fitout	$ 180,996.85	17.00%	50.00%					20yrs		I I I I	$ 361,993.70		
Services	$ 441,845.25	41.50%	50.00%					40yrs		I	$ 220,922.63		
Depreciation Value									$ 716,910.96		$ -	$ 1,082,584.74	$ 14,434.46
Thornton Park Tennis Clubhouse	Concrete Brick Timber Steel			1991	18	4	$ 144,000.00						
Replacement	$ 144,000.00		0.50%							I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I	$ 53,280.00		
Substructure	$ 5,040.00	3.50%	33.30%					50yrs		I	$ 1,678.32		
Superstructure	$ 54,720.00	38.00%	10.00%					50yrs		I	$ 5,472.00		
Fittings - Fitout	$ 24,480.00	17.00%	50.00%					20yrs		I I I I	$ 48,960.00		
Services	$ 59,760.00	41.50%	50.00%					40yrs		I I	$ 59,760.00		
Depreciation Value									$ 70,080.00		$ -	$ 169,150.32	$ 2,255.34
Largs Oval Tennis Clubhouse	Concrete Brick Timber Steel			1980	29	2	$ 87,000.00						
Replacement	$ 87,000.00		0.50%							I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I	$ 32,190.00		
Substructure	$ 3,045.00	3.50%	33.30%					50yrs		I I	$ 2,027.97		
Superstructure	$ 33,060.00	38.00%	10.00%					50yrs		I I	$ 6,612.00		
Fittings - Fitout	$ 14,790.00	17.00%	50.00%					20yrs		I I I I	$ 29,580.00		
Services	$ 36,105.00	41.50%	50.00%					40yrs		I I	$ 36,105.00		
Depreciation Value									$ 42,340.00		$ -	$ 106,514.97	$ 1,420.20
Somerset Park Oval Recreation Building	Concrete Brick Timber Steel			2008	1	5	$ 446,823.61						

Replacement	$ 446,823.61		0.50%								$ 165,324.74		
Substructure	$ 15,638.83	3.50%	33.30%				50yrs				$ 5,207.73		
Superstructure	$ 169,792.97	38.00%	10.00%				50yrs				$ 33,958.59		
Fittings - Fitout	$ 75,960.01	17.00%	50.00%				20yrs				$ 113,940.02		
Services	$ 185,431.80	41.50%	50.00%				40yrs				$ 92,715.90		
Depreciation Value								$ 445,334.20			$ -	$ 411,146.98	$ 5,481.96
East Maitland Park Tennis Club	Concrete Brick Timber Steel			1990	19	4	$ 120,000.00						
Replacement	$ 120,000.00		0.50%								$ 44,400.00		
Substructure	$ 4,200.00	3.50%	33.30%				50yrs				$ 1,398.60		
Superstructure	$ 45,600.00	38.00%	10.00%				50yrs				$ 4,560.00		
Fittings - Fitout	$ 20,400.00	17.00%	50.00%				20yrs				$ 40,800.00		
Services	$ 49,800.00	41.50%	50.00%				40yrs				$ 49,800.00		
Depreciation Value								$ 58,200.00			$ -	$ 140,958.60	$ 1,879.45
Bolwarra Tennis Clubhouse	Concrete Timber Steel			1960	49	2	$ 29,000.00						
Replacement	$ 29,000.00		0.50%								$ 10,730.00		
Substructure	$ 1,015.00	3.50%	33.30%				50yrs				$ 675.99		
Superstructure	$ 11,020.00	38.00%	10.00%				50yrs				$ 2,204.00		
Fittings - Fitout	$ 4,930.00	17.00%	50.00%				20yrs				$ 9,860.00		
Services	$ 12,035.00	41.50%	50.00%				40yrs				$ 12,035.00		
Depreciation Value								$ 13,920.00			$ -	$ 35,504.99	$ 473.40
Rathluba Lagoon Hut	Concrete Brick Timber Steel			1990	19	2	$ 48,000.00						
Replacement	$ 48,000.00		0.50%								$ 17,760.00		
Substructure	$ 1,680.00	3.50%	33.30%				50yrs				$ 559.44		
Superstructure	$ 18,240.00	38.00%	10.00%				50yrs				$ 1,824.00		
Fittings - Fitout	$ 8,160.00	17.00%	50.00%				20yrs				$ 16,320.00		
Services	$ 19,920.00	41.50%	50.00%				40yrs				$ 19,920.00		
Depreciation Value								$ 23,280.00			$ -	$ 56,383.44	$ 751.78
Rutherford Tennis Clubhouse	Concrete Brick Timber Steel			2000	9	4	$ 122,000.00						
Replacement	$ 122,000.00		0.50%								$ 45,140.00		
Substructure	$ 4,270.00	3.50%	33.30%				50yrs				$ 1,421.91		
Superstructure	$ 46,360.00	38.00%	10.00%				50yrs				$ 4,636.00		
Fittings - Fitout	$ 20,740.00	17.00%	50.00%				20yrs				$ 41,480.00		
Services	$ 50,630.00	41.50%	50.00%				40yrs				$ 50,630.00		
Depreciation Value								$ 59,373.33			$ -	$ 143,307.91	$ 1,910.77
Woodbery No2 Oval Amenities	Concrete Brick Timber Steel			2008	1	5	$ 113,529.13						
Replacement	$ 113,529.13		0.50%								$ 42,005.78		
Substructure	$ 11,352.91	10.00%	33.30%				50yrs				$ 3,780.52		
Superstructure	$ 56,764.57	50.00%	10.00%				50yrs				$ 5,676.46		
Fittings - Fitout	$ 17,029.37	15.00%	33.30%				20yrs				$ 17,012.34		
Services	$ 28,382.28	25.00%	33.30%				40yrs				$ 18,902.60		
Depreciation Value								$ 113,339.91			$ -	$ 87,377.69	$ 1,165.04
Maitland Sports Ground Dransfield Pavillion	Concrete Brick Timber Steel			1970	39	4	$ 606,273.33						
Replacement	$ 606,273.33		0.50%								$ 224,321.13		
Substructure	$ 60,627.33	10.00%	33.30%				50yrs				$ 40,377.80		
Superstructure	$ 303,136.67	50.00%	10.00%				50yrs				$ 60,627.33		
Fittings - Fitout	$ 90,941.00	15.00%	33.30%				20yrs				$ 121,133.41		
Services	$ 151,568.33	25.00%	33.30%				30yrs				$ 100,944.51		
Depreciation Value								$ 443,804.50			$ -	$ 547,404.19	$ 7,298.72
Maitland Sports Ground Pannowitz Pavillion	Concrete Brick Timber Steel			1958	51	4	$ 606,273.33						
Replacement	$ 606,273.33		0.50%								$ 224,321.13		
Substructure	$ 60,627.33	10.00%	33.30%				50yrs				$ 20,188.90		
Superstructure	$ 303,136.67	50.00%	10.00%				50yrs				$ 30,313.67		
Fittings - Fitout	$ 90,941.00	15.00%	33.30%				20yrs				$ 121,133.41		
Services	$ 151,568.33	25.00%	33.30%				30yrs				$ 151,416.76		
Depreciation Value								$ 443,804.50			$ -	$ 547,373.88	$ 7,298.32
Maitland Sports ground Moreland Grandstand	Concrete Brick Timber Steel			1958	51	4	$ 606,273.33						
Replacement	$ 606,273.33		0.50%								$ 224,321.13		
Substructure	$ 60,627.33	10.00%	33.30%				50yrs				$ 20,188.90		
Superstructure	$ 303,136.67	50.00%	10.00%				50yrs				$ 30,313.67		
Fittings - Fitout	$ 90,941.00	15.00%	33.30%				20yrs				$ 121,133.41		
Services	$ 151,568.33	25.00%	33.30%				30yrs				$ 151,416.76		
Depreciation Value								$ 443,804.50			$ -	$ 547,373.88	$ 7,298.32
Maitland Park Mick Henman Grandstand	Concrete Brick Timber Steel			1967	42	3	$ 482,000.00						
Replacement	$ 482,000.00		0.50%								$ 178,340.00		
Substructure	$ 48,200.00	10.00%	33.30%				50yrs				$ 32,101.20		
Superstructure	$ 241,000.00	50.00%	10.00%				50yrs				$ 48,200.00		
Fittings - Fitout	$ 72,300.00	15.00%	33.30%				20yrs				$ 72,227.70		
Services	$ 120,500.00	25.00%	33.30%				30yrs				$ 80,253.00		
Depreciation Value								$ 234,573.33			$ -	$ 411,121.90	$ 5,481.63
Lorn Park K A Johnston Pavillion Grandstand	Concrete Brick Timber Steel			1964	45	3	$ 440,000.00						
Replacement	$ 440,000.00		0.50%								$ 162,800.00		
Substructure	$ 44,000.00	10.00%	33.30%				50yrs				$ 29,304.00		
Superstructure	$ 220,000.00	50.00%	10.00%				50yrs				$ 44,000.00		
Fittings - Fitout	$ 66,000.00	15.00%	33.30%				20yrs				$ 65,934.00		
Services	$ 110,000.00	25.00%	33.30%				30yrs				$ 73,260.00		
Depreciation Value								$ 214,133.33			$ -	$ 375,298.00	$ 5,003.97
Coronation Oval Grandstand	Concrete Brick Timber Steel			1971	38	4	$ 132,000.00						
Replacement	$ 132,000.00		0.50%								$ 48,840.00		
Substructure	$ 26,400.00	20.00%	33.30%				50yrs				$ 17,582.40		
Superstructure	$ 79,200.00	60.00%	10.00%				50yrs				$ 15,840.00		
Fittings - Fitout	$ 13,200.00	10.00%	33.30%				20yrs				$ 17,582.40		

Services	$ 13,200.00	10.00%	33.30%				30yrs		$ 8,791.20		
Depreciation Value								$ 58,360.00	$ -	$ 108,636.00	$ 1,448.48
King Edward Park Grandstand	Concrete Brick Timber Steel			1961	48	4	$ 334,800.00				
Replacement	$ 334,800.00		0.50%						$ 123,876.00		
Substructure	$ 66,960.00	20.00%	33.30%				50yrs		$ 44,595.36		
Superstructure	$ 200,880.00	60.00%	10.00%				50yrs		$ 40,176.00		
Fittings - Fitout	$ 33,480.00	10.00%	33.30%				20yrs		$ 44,595.36		
Services	$ 33,480.00	10.00%	33.30%				30yrs		$ 33,446.52		
Depreciation Value								$ 162,378.00	$ -	$ 286,689.24	$ 3,822.52
Cooks Square Park Grandstand	Concrete Timber Steel			1992	17	3	$ 129,000.00				
Replacement	$ 129,000.00		0.50%						$ 47,730.00		
Substructure	$ 25,800.00	20.00%	33.30%				50yrs		$ 8,591.40		
Superstructure	$ 87,720.00	68.00%	10.00%				50yrs		$ 8,772.00		
Fittings - Fitout	$ 12,900.00	10.00%	33.30%				20yrs		$ 17,182.80		
Services	$ 2,580.00	2.00%	33.30%				30yrs		$ 1,718.28		
Depreciation Value								$ 62,565.00	$ -	$ 83,994.48	$ 1,119.93
Morpeth Park Grandstand	Concrete Brick Timber Steel			1950	59	4	$ 220,000.00				
Replacement	$ 220,000.00		0.50%						$ 81,400.00		
Substructure	$ 44,000.00	20.00%	33.30%				50yrs		$ 14,652.00		
Superstructure	$ 149,600.00	68.00%	10.00%				50yrs		$ 14,960.00		
Fittings - Fitout	$ 22,000.00	10.00%	33.30%				20yrs		$ 29,304.00		
Services	$ 4,400.00	2.00%	33.30%				30yrs		$ 2,930.40		
Depreciation Value								$ 99,066.67	$ -	$ 143,246.40	$ 1,909.95
Maitland Sports Ground Kiosk	Concrete Brick Timber Steel			1982	27	4	$ 232,000.00				
Replacement	$ 232,000.00		0.50%						$ 85,840.00		
Substructure	$ 8,120.00	3.50%	33.30%				50yrs		$ 5,407.92		
Superstructure	$ 88,160.00	38.00%	10.00%				50yrs		$ 17,632.00		
Fittings - Fitout	$ 39,440.00	17.00%	50.00%				20yrs		$ 78,880.00		
Services	$ 96,280.00	41.50%	50.00%				40yrs		$ 96,280.00		
Depreciation Value								$ 111,360.00	$ -	$ 284,039.92	$ 3,787.20
Maitland Park Old Kiosk & Storage	Concrete Brick Timber Steel			1983	26	3	$ 15,700.00				
Replacement	$ 15,700.00		0.50%						$ 5,809.00		
Substructure	$ 1,570.00	10.00%	33.30%				50yrs		$ 1,045.62		
Superstructure	$ 7,850.00	50.00%	10.00%				50yrs		$ 1,570.00		
Fittings - Fitout	$ 2,355.00	15.00%	33.30%				20yrs		$ 3,136.86		
Services	$ 3,925.00	25.00%	33.30%				40yrs		$ 2,614.05		
Depreciation Value								$ 7,536.00	$ -	$ 14,175.53	$ 189.01
Maitland Park Kiosk Tank	Concrete			1984	25	4	$ 16,000.00				
Replacement	$ 16,000.00		0.50%						$ 5,920.00		
Substructure	$ 1,600.00	10.00%	33.30%				50yrs		$ 532.80		
Superstructure	$ 8,000.00	50.00%	10.00%				50yrs		$ 800.00		
Fittings - Fitout	$ 2,400.00	15.00%	33.30%				20yrs		$ 2,397.60		
Services	$ 4,000.00	25.00%	33.30%				40yrs		$ 2,664.00		
Depreciation Value								$ 7,680.00	$ -	$ 12,314.40	$ 164.19
Maitland Park Kiosk Tank	Concrete			1984	25	4	$ 9,200.00				
Replacement	$ 9,200.00		0.50%						$ 3,404.00		
Substructure	$ 920.00	10.00%	33.30%				50yrs		$ 306.36		
Superstructure	$ 4,600.00	50.00%	10.00%				50yrs		$ 460.00		
Fittings - Fitout	$ 1,380.00	15.00%	33.30%				20yrs		$ 1,378.62		
Services	$ 2,300.00	25.00%	33.30%				40yrs		$ 1,531.80		
Depreciation Value								$ 4,416.00	$ -	$ 7,080.78	$ 94.41
Lorn Park K A Johnston Kiosk	Concrete			1986	23	3	$ 9,200.00				
Replacement	$ 9,200.00		0.50%						$ 3,404.00		
Substructure	$ 920.00	10.00%	33.30%				50yrs		$ 306.36		
Superstructure	$ 4,600.00	50.00%	10.00%				50yrs		$ 460.00		
Fittings - Fitout	$ 1,380.00	15.00%	33.30%				20yrs		$ 1,378.62		
Services	$ 2,300.00	25.00%	33.30%				40yrs		$ 1,531.80		
Depreciation Value								$ 4,416.00	$ -	$ 7,080.78	$ 94.41
Coronation Oval Kiosk	Concrete Brick Timber Steel			1980	29	3	$ 108,000.00				
Replacement	$ 108,000.00		0.50%						$ 39,960.00		
Substructure	$ 10,800.00	10.00%	33.30%				50yrs		$ 3,596.40		
Superstructure	$ 54,000.00	50.00%	10.00%				50yrs		$ 5,400.00		
Fittings - Fitout	$ 16,200.00	15.00%	33.30%				20yrs		$ 21,578.40		
Services	$ 27,000.00	25.00%	33.30%				40yrs		$ 17,982.00		
Depreciation Value								$ 45,160.00	$ -	$ 88,516.80	$ 1,180.22
Rutherford Oval Kiosk & Control Tower	Concrete Brick Timber Steel			1979	30	3	$ 110,000.00				
Replacement	$ 110,000.00		0.50%						$ 40,700.00		
Substructure	$ 11,000.00	10.00%	33.30%				50yrs		$ 7,326.00		
Superstructure	$ 55,000.00	50.00%	10.00%				50yrs		$ 11,000.00		
Fittings - Fitout	$ 16,500.00	15.00%	33.30%				20yrs		$ 21,978.00		
Services	$ 27,500.00	25.00%	33.30%				40yrs		$ 18,315.00		
Depreciation Value								$ 52,800.00	$ -	$ 99,319.00	$ 1,324.25
King Edward Park Kiosk	Concrete Brick Timber Steel			1982	27	4	$ 65,000.00				
Replacement	$ 65,000.00		0.50%						$ 24,050.00		
Substructure	$ 6,500.00	10.00%	33.30%				50yrs		$ 4,329.00		
Superstructure	$ 32,500.00	50.00%	10.00%				50yrs		$ 6,500.00		
Fittings - Fitout	$ 9,750.00	15.00%	33.30%				20yrs		$ 12,987.00		
Services	$ 16,250.00	25.00%	33.30%				40yrs		$ 10,822.50		
Depreciation Value								$ 31,200.00	$ -	$ 58,688.50	$ 782.51
Cooks Square Park Kiosk	Concrete Brick Timber Steel			1982	27	3	$ 77,000.00				
Replacement	$ 77,000.00		0.50%						$ 28,490.00		
Substructure	$ 7,700.00	10.00%	33.30%				50yrs		$ 5,128.20		
Superstructure	$ 38,500.00	50.00%	10.00%				50yrs		$ 7,700.00		
Fittings - Fitout	$ 11,550.00	15.00%	33.30%				20yrs		$ 15,384.60		

Services	$ 19,250.00	25.00%	33.30%				40yrs		$ 12,820.50		
Depreciation Value								$ 36,960.00	$ -	$ 69,523.30	$ 926.98
Smythe Oval Old Kiosk	Concrete Brick Timber Steel			1980	29	3	$ 14,000.00				
Replacement	$ 14,000.00		0.50%						$ 5,180.00		
Substructure	$ 1,400.00	10.00%	33.30%				50yrs		$ 466.20		
Superstructure	$ 7,000.00	50.00%	10.00%				50yrs		$ 700.00		
Fittings - Fitout	$ 2,100.00	15.00%	33.30%				20yrs		$ 2,797.20		
Services	$ 3,500.00	25.00%	33.30%				40yrs		$ 2,331.00		
Depreciation Value								$ 6,720.00	$ -	$ 11,474.40	$ 152.99
Woodberry Oval Kiosk	Concrete Brick Timber Steel			1983	26	3	$ 100,000.00				
Replacement	$ 100,000.00		0.50%						$ 37,000.00		
Substructure	$ 10,000.00	10.00%	33.30%				50yrs		$ 6,660.00		
Superstructure	$ 50,000.00	50.00%	10.00%				50yrs		$ 10,000.00		
Fittings - Fitout	$ 15,000.00	15.00%	33.30%				20yrs		$ 19,980.00		
Services	$ 25,000.00	25.00%	33.30%				40yrs		$ 16,650.00		
Depreciation Value								$ 48,000.00	$ -	$ 90,290.00	$ 1,203.87
Woodberry Oval Additional Kiosk	Concrete			2000	9	4	$ 27,950.00				
Replacement	$ 27,950.00		0.50%						$ 10,341.50		
Substructure	$ 2,795.00	10.00%	33.30%				50yrs		$ 930.74		
Superstructure	$ 13,975.00	50.00%	10.00%				50yrs		$ 1,397.50		
Fittings - Fitout	$ 4,192.50	15.00%	33.30%				20yrs		$ 5,584.41		
Services	$ 6,987.50	25.00%	33.30%				40yrs		$ 4,653.68		
Depreciation Value								$ 13,416.00	$ -	$ 22,907.82	$ 305.44
BMXTrack Beryl Humble Complex Kiosk	Concrete			1990	19	4	$ 5,350.00				
Replacement	$ 5,350.00		0.50%						$ 1,979.50		
Substructure	$ 535.00	10.00%	33.30%				50yrs		$ 178.16		
Superstructure	$ 2,675.00	50.00%	10.00%				50yrs		$ 267.50		
Fittings - Fitout	$ 802.50	15.00%	33.30%				20yrs		$ 1,068.93		
Services	$ 1,337.50	25.00%	33.30%				40yrs		$ 890.78		
Depreciation Value								$ 2,593.00	$ -	$ 4,384.86	$ 58.46
Maitland Sports Ground Ticket Box	Concrete Brick Timber Steel			2001	8	4	$ 67,000.00				
Replacement	$ 67,000.00		0.50%						$ 24,790.00		
Substructure	$ 6,700.00	10.00%	33.30%				50yrs		$ 2,231.10		
Superstructure	$ 33,500.00	50.00%	10.00%				50yrs		$ 3,350.00		
Fittings - Fitout	$ 10,050.00	15.00%	33.30%				20yrs		$ 13,386.60		
Services	$ 16,750.00	25.00%	33.30%				30yrs		$ 11,155.50		
Depreciation Value								$ 49,356.67	$ -	$ 54,913.20	$ 732.18
Maitland Sports Ground Media	Timber Steel			1970	39	4	$ 45,000.00				
Replacement	$ 45,000.00		0.50%						$ 16,650.00		
Substructure	$ 4,500.00	10.00%	33.30%				50yrs		$ 2,997.00		
Superstructure	$ 22,500.00	50.00%	10.00%				50yrs		$ 4,500.00		
Fittings - Fitout	$ 6,750.00	15.00%	33.30%				20yrs		$ 8,991.00		
Services	$ 11,250.00	25.00%	33.30%				30yrs		$ 7,492.50		
Depreciation Value								$ 21,600.00	$ -	$ 40,630.50	$ 541.74
Cooks Square Park Gatehouse	Concrete Brick Timber Steel			1990	19	3	$ 3,000.00				
Replacement	$ 3,000.00		0.50%						$ 1,110.00		
Substructure	$ 750.00	25.00%	33.30%				50yrs		$ 249.75		
Superstructure	$ 1,500.00	50.00%	10.00%				50yrs		$ 150.00		
Fittings - Fitout	$ 450.00	15.00%	33.30%				20yrs		$ 599.40		
Services	$ 300.00	10.00%	33.30%				30yrs		$ 199.80		
Depreciation Value								$ 1,460.00	$ -	$ 2,308.95	$ 30.79
Town Hall Café	Concrete Brick Timber Steel			1840	169	4	$ 203,000.00				
Replacement	$ 203,000.00		0.50%						$ 75,110.00		
Substructure	$ 7,105.00	3.50%	33.30%				50yrs		$ 2,365.97		
Superstructure	$ 77,140.00	38.00%	20.00%				50yrs		$ 15,428.00		
Fittings - Fitout	$ 24,360.00	12.00%	50.00%				20yrs		$ 48,720.00		
Services	$ 94,395.00	46.50%	50.00%				40yrs		$ 94,395.00		
Depreciation Value								$ 78,493.33	$ -	$ 236,018.97	$ 3,146.92
Stockade Hill Heritage Park Rotunda	Concrete Brick Timber Steel			1980	29	3	$ 22,000.00				
Replacement	$ 22,000.00		0.50%						$ 8,140.00		
Substructure	$ 5,500.00	25.00%	33.30%				50yrs		$ 3,663.00		
Superstructure	$ 11,000.00	50.00%	10.00%				50yrs		$ 2,200.00		
Fittings - Fitout	$ 5,060.00	23.00%	33.30%				20yrs		$ 6,739.92		
Services	$ 440.00	2.00%	33.30%				40yrs		$ 293.04		
Depreciation Value								$ 10,853.33	$ -	$ 21,035.96	$ 280.48
Scobie Lane Dairy & Home	Concrete Brick Timber Steel			1940	69	1	$ 360,000.00				
Replacement	$ 360,000.00		0.50%						$ -		
Substructure	$ 12,600.00	3.50%	33.30%				50yrs		$ 4,195.80		
Superstructure	$ 136,800.00	38.00%	10.00%				50yrs		$ 13,680.00		
Fittings - Fitout	$ 57,600.00	16.00%	50.00%				20yrs		$ 115,200.00		
Services	$ 153,000.00	42.50%	50.00%				40yrs		$ 153,000.00		
Depreciation Value								$ 178,200.00	$ -	$ 286,075.80	$ 3,814.34
Bolwarra Lookout Shelter							$ -				
Replacement			0.50%						$ -		
Substructure	$ -	25.00%	33.30%				50yrs		$ -		
Superstructure	$ -	50.00%	10.00%				50yrs		$ -		
Fittings - Fitout	$ -	23.00%	33.30%				20yrs		$ -		
Services	$ -	2.00%	33.30%				40yrs		$ -		
Depreciation Value									$ -	$ -	$ -
Hew Cottage	Concrete Timber			1970	39	3	$ 42,000.00				
Replacement	$ 42,000.00		0.50%						$ 15,540.00		
Substructure	$ 10,500.00	25.00%	33.30%				50yrs		$ 6,993.00		
Superstructure	$ 21,000.00	50.00%	10.00%				50yrs		$ 4,200.00		
Fittings - Fitout	$ 9,660.00	23.00%	33.30%				20yrs		$ 12,867.12		

Services	$ 840.00	2.00%	33.30%				30yrs			$ 559.44		
Depreciation Value								$ 10,640.00		$ -	$ 40,159.56	$ 535.46
Devonshire St Units	Concrete Brick Timber Steel			1920	89	4	$ 220,000.00					
Replacement	$ 220,000.00		0.50%							$ -		
Substructure	$ 7,700.00	3.50%	33.30%				50yrs			$ 5,128.20		
Superstructure	$ 83,600.00	38.00%	10.00%				50yrs			$ 16,720.00		
Fittings - Fitout	$ 35,200.00	16.00%	50.00%				20yrs			$ 70,400.00		
Services	$ 93,500.00	42.50%	50.00%				30yrs			$ 140,250.00		
Depreciation Value								$ 108,900.00		$ -	$ 232,498.20	$ 3,099.98
Grant St Home	Concrete Timber Steel			1920	89	3	$ 180,000.00					
Replacement	$ 180,000.00		0.50%							$ -		
Substructure	$ 6,300.00	3.50%	33.30%				50yrs			$ 4,195.80		
Superstructure	$ 68,400.00	38.00%	10.00%				50yrs			$ 13,680.00		
Fittings - Fitout	$ 28,800.00	16.00%	50.00%				20yrs			$ 57,600.00		
Services	$ 76,500.00	42.50%	50.00%				30yrs			$ 114,750.00		
Depreciation Value								$ 89,100.00		$ -	$ 190,225.80	$ 2,536.34
Walka Waterworks	Concrete Brick Timber Steel			1887	122	3	$ 9,626.28					
Replacement	$ 9,626.28		0.50%							$ 3,561.72		
Substructure	$ 336.92	3.50%	33.30%				50yrs			$ 224.39		
Superstructure	$ 3,657.99	38.00%	10.00%				50yrs			$ 731.60		
Fittings - Fitout	$ 1,540.20	16.00%	50.00%				20yrs			$ 3,080.41		
Services	$ 4,091.17	42.50%	50.00%				30yrs			$ 4,091.17		
Depreciation Value								$ 9,626.28		$ -	$ 11,689.29	$ 155.86
Maitland Park Gardeners Residence	Concrete Brick Timber Tiled			1950	59	3	$ 160,000.00					
Replacement	$ 160,000.00		0.50%							$ 59,200.00		
Substructure	$ 5,600.00	3.50%	33.30%				50yrs			$ 1,864.80		
Superstructure	$ 60,800.00	38.00%	10.00%				50yrs			$ 6,080.00		
Fittings - Fitout	$ 25,600.00	16.00%	50.00%				20yrs			$ 51,200.00		
Services	$ 68,000.00	42.50%	50.00%				30yrs			$ 102,000.00		
Depreciation Value								$ 78,933.33		$ -	$ 220,344.80	$ 2,937.93
Rotunda Maitland Park	Concrete Brick Timber Steel			1900	109	3	$ 25,000.00					
Replacement	$ 25,000.00		0.50%							$ 9,250.00		
Substructure	$ 10,000.00	40.00%	33.30%				50yrs			$ 3,330.00		
Superstructure	$ 13,750.00	55.00%	10.00%				50yrs			$ 1,375.00		
Fittings - Fitout	$ -	0.00%	33.30%				20yrs			$ -		
Services	$ 1,250.00	5.00%	33.30%				30yrs			$ 1,248.75		
Depreciation Value								$ 11,483.33		$ -	$ 15,203.75	$ 202.72
Maitland Hockey Centre - Dug out	Concrete Timber Steel			2004	5	5	$ 70,000.00					
Replacement	$ 70,000.00		0.50%							$ 25,900.00		
Substructure	$ 2,450.00	3.50%	33.30%				50yrs			$ 815.85		
Superstructure	$ 26,600.00	38.00%	10.00%				50yrs			$ 2,660.00		
Fittings - Fitout	$ 11,200.00	16.00%	50.00%				20yrs			$ 16,800.00		
Services	$ 29,750.00	42.50%	50.00%				30yrs			$ 29,750.00		
Depreciation Value								$ 34,066.67		$ -	$ 75,925.85	$ 1,012.34
Morpeth Scout Hall	Concrete Brick Timber Steel					3	$ -					
Replacement			0.50%							$ -		
Substructure	$ -		33.30%							$ -		
Superstructure	$ -		10.00%							$ -		
Fittings - Fitout	$ -		50.00%							$ -		
Services	$ -		50.00%							$ -		
Depreciation Value										$ -	$ -	$ -
Maitland Sports Ground Toilet Block	Concrete Brick Timber Steel			1971	38	4	$ 76,000.00					
Replacement	$ 76,000.00		0.50%							$ 28,120.00		
Substructure	$ 15,200.00	20.00%	33.30%				50yrs			$ 10,123.20		
Superstructure	$ 38,000.00	50.00%	10.00%				50yrs			$ 7,600.00		
Fittings - Fitout	$ 3,800.00	5.00%	33.30%				20yrs			$ 5,061.60		
Services	$ 19,000.00	25.00%	33.30%				30yrs			$ 12,654.00		
Depreciation Value								$ 36,480.00		$ -	$ 63,558.80	$ 847.45
Maitland Park Toilet Block	Concrete Brick Timber Tiled			1957	52	2	$ 65,000.00					
Replacement	$ 65,000.00		0.50%							$ 24,050.00		
Substructure	$ 6,500.00	10.00%	33.30%				50yrs			$ 2,164.50		
Superstructure	$ 39,000.00	60.00%	10.00%				50yrs			$ 3,900.00		
Fittings - Fitout	$ 6,500.00	10.00%	33.30%				20yrs			$ 8,658.00		
Services	$ 13,000.00	20.00%	33.30%				30yrs			$ 12,987.00		
Depreciation Value								$ 32,175.00		$ -	$ 51,759.50	$ 690.13
Largs Park Toilet Block	Concrete Timber Steel			1970	39	4	$ 16,000.00					
Replacement	$ 16,000.00		0.50%							$ 5,920.00		
Substructure	$ 3,200.00	20.00%	33.30%				50yrs			$ 2,131.20		
Superstructure	$ 8,000.00	50.00%	10.00%				50yrs			$ 1,600.00		
Fittings - Fitout	$ 800.00	5.00%	33.30%				20yrs			$ 1,065.60		
Services	$ 4,000.00	25.00%	33.30%				30yrs			$ 2,664.00		
Depreciation Value								$ 7,680.00		$ -	$ 13,380.80	$ 178.41
Taree Av Toilet Block	Concrete Brick Timber Steel			1979	30	4	$ 46,000.00					
Replacement	$ 46,000.00		0.50%							$ 17,020.00		
Substructure	$ 9,200.00	20.00%	33.30%				50yrs			$ 6,127.20		
Superstructure	$ 23,000.00	50.00%	10.00%				50yrs			$ 4,600.00		
Fittings - Fitout	$ 2,300.00	5.00%	33.30%				20yrs			$ 3,063.60		
Services	$ 11,500.00	25.00%	33.30%				30yrs			$ 7,659.00		
Depreciation Value								$ 22,080.00		$ -	$ 38,469.80	$ 512.93
Chemsford Dr Oval Toilet Block	Concrete Brick Timber Steel			1982	27	3	$ 61,000.00					
Replacement	$ 61,000.00		0.50%							$ 22,570.00		
Substructure	$ 12,200.00	20.00%	33.30%				50yrs			$ 8,125.20		
Superstructure	$ 30,500.00	50.00%	10.00%				50yrs			$ 6,100.00		
Fittings - Fitout	$ 3,050.00	5.00%	33.30%				20yrs			$ 4,062.60		
Services	$ 15,250.00	25.00%	33.30%				30yrs			$ 15,234.75		

Depreciation Value								$ 29,280.00	$ -	$ 56,092.55	$ 747.90
Victoria St Tennis Toilet Block	Concrete Brick Timber Steel			1969	40	3	$ 56,000.00				
Replacement	$ 56,000.00		0.50%						$ 20,720.00		
Substructure	$ 11,200.00	20.00%	33.30%				50yrs		$ 7,459.20		
Superstructure	$ 28,000.00	50.00%	10.00%				50yrs		$ 5,600.00		
Fittings - Fitout	$ 2,800.00	5.00%	33.30%				20yrs		$ 2,797.20		
Services	$ 14,000.00	25.00%	33.30%				30yrs		$ 9,324.00		
Depreciation Value								$ 26,880.00	$ -	$ 45,900.40	$ 612.01
Maitland Mall Toilet Block	Concrete Brick Tiled			1998	11	4	Rental??				
Replacement			0.50%						$ -		
Substructure	$ -	20.00%	33.30%				50yrs		$ -		
Superstructure	$ -	50.00%	10.00%				50yrs		$ -		
Fittings - Fitout	$ -	5.00%	33.30%				20yrs		$ -		
Services	$ -	25.00%	33.30%				30yrs		$ -		
Depreciation Value									$ -	$ -	$ -
Stockade Hill Toilet Block	Concrete Timber Steel			1987	22	3	$ 76,000.00				
Replacement	$ 76,000.00		0.50%						$ 28,120.00		
Substructure	$ 15,200.00	20.00%	33.30%				50yrs		$ 5,061.60		
Superstructure	$ 38,000.00	50.00%	10.00%				50yrs		$ 3,800.00		
Fittings - Fitout	$ 3,800.00	5.00%	33.30%				20yrs		$ 3,796.20		
Services	$ 19,000.00	25.00%	33.30%				30yrs		$ 18,981.00		
Depreciation Value								$ 36,480.00	$ -	$ 59,758.80	$ 796.78
Morpeth Common Toilet Block	Concrete Brick Timber Steel			1978	31	4	$ 70,000.00				
Replacement	$ 70,000.00		0.50%						$ 25,900.00		
Substructure	$ 14,000.00	20.00%	33.30%				50yrs		$ 9,324.00		
Superstructure	$ 35,000.00	50.00%	10.00%				50yrs		$ 7,000.00		
Fittings - Fitout	$ 3,500.00	5.00%	33.30%				20yrs		$ 4,662.00		
Services	$ 17,500.00	25.00%	33.30%				30yrs		$ 11,655.00		
Depreciation Value								$ 51,566.67	$ -	$ 58,541.00	$ 780.55
Johnson Reserve Toilet Block	Concrete Brick Steel			1969	40	4	$ 65,000.00				
Replacement	$ 65,000.00		0.50%						$ 24,050.00		
Substructure	$ 13,000.00	20.00%	33.30%				50yrs		$ 8,658.00		
Superstructure	$ 32,500.00	50.00%	10.00%				50yrs		$ 6,500.00		
Fittings - Fitout	$ 3,250.00	5.00%	33.30%				20yrs		$ 3,246.75		
Services	$ 16,250.00	25.00%	33.30%				30yrs		$ 10,822.50		
Depreciation Value								$ 31,200.00	$ -	$ 53,277.25	$ 710.36
Lawes St Toilet Block	Concrete Brick Steel			1969	40	4	$ 65,000.00				
Replacement	$ 65,000.00		0.50%						$ 24,050.00		
Substructure	$ 13,000.00	20.00%	33.30%				50yrs		$ 8,658.00		
Superstructure	$ 32,500.00	50.00%	10.00%				50yrs		$ 6,500.00		
Fittings - Fitout	$ 3,250.00	5.00%	33.30%				20yrs		$ 3,246.75		
Services	$ 16,250.00	25.00%	33.30%				30yrs		$ 10,822.50		
Depreciation Value								$ 31,200.00	$ -	$ 53,277.25	$ 710.36
Ron Stewart Sports Area Toilet Block	Concrete Brick Steel			1969	40	3	$ 65,000.00				
Replacement	$ 65,000.00		0.50%						$ 24,050.00		
Substructure	$ 13,000.00	20.00%	33.30%				50yrs		$ 8,658.00		
Superstructure	$ 32,500.00	50.00%	10.00%				50yrs		$ 6,500.00		
Fittings - Fitout	$ 3,250.00	5.00%	33.30%				20yrs		$ 3,246.75		
Services	$ 16,250.00	25.00%	33.30%				30yrs		$ 10,822.50		
Depreciation Value								$ 31,200.00	$ -	$ 53,277.25	$ 710.36
Rotary Park Toilet Block	Concrete Brick Steel			1969	40	4	$ 63,000.00				
Replacement	$ 65,000.00		0.50%						$ 24,050.00		
Substructure	$ 13,000.00	20.00%	33.30%				50yrs		$ 8,658.00		
Superstructure	$ 32,500.00	50.00%	10.00%				50yrs		$ 6,500.00		
Fittings - Fitout	$ 3,250.00	5.00%	33.30%				20yrs		$ 3,246.75		
Services	$ 16,250.00	25.00%	33.30%				30yrs		$ 10,822.50		
Depreciation Value								$ 30,240.00	$ -	$ 53,277.25	$ 710.36
Tenambit Oval Toilet	Concrete Brick Steel			1969	40	3	$ 65,000.00				
Replacement	$ 63,000.00		0.50%						$ 23,310.00		
Substructure	$ 12,600.00	20.00%	33.30%				50yrs		$ 8,391.60		
Superstructure	$ 31,500.00	50.00%	10.00%				50yrs		$ 6,300.00		
Fittings - Fitout	$ 3,150.00	5.00%	33.30%				20yrs		$ 3,146.85		
Services	$ 15,750.00	25.00%	33.30%				30yrs		$ 10,489.50		
Depreciation Value								$ 31,200.00	$ -	$ 51,637.95	$ 688.51
Centennial Park Toilet Block	Concrete Brick Steel			1960	49	4	$ 65,000.00				
Replacement	$ 65,000.00		0.50%						$ 24,050.00		
Substructure	$ 13,000.00	20.00%	33.30%				50yrs		$ 8,658.00		
Superstructure	$ 32,500.00	50.00%	10.00%				50yrs		$ 6,500.00		
Fittings - Fitout	$ 3,250.00	5.00%	33.30%				20yrs		$ 4,329.00		
Services	$ 16,250.00	25.00%	33.30%				30yrs		$ 16,233.75		
Depreciation Value								$ 26,550.00	$ -	$ 59,770.75	$ 796.94
Elgin St Toilet Block	Demountable			1990	19	1	$ 12,000.00				
Replacement	$ 12,000.00		0.50%						$ 4,440.00		
Substructure	$ 2,400.00	20.00%	33.30%				50yrs		$ 799.20		
Superstructure	$ 6,000.00	50.00%	10.00%				50yrs		$ 600.00		
Fittings - Fitout	$ 600.00	5.00%	33.30%				20yrs		$ 799.20		
Services	$ 3,000.00	25.00%	33.30%				30yrs		$ 2,997.00		
Depreciation Value								$ 5,940.00	$ -	$ 9,635.40	$ 128.47
Smythe Oval Toilet Block	Concrete Brick Steel			1969	40	4	$ 59,500.00				
Replacement	$ 59,500.00		0.50%						$ 22,015.00		
Substructure	$ 11,900.00	20.00%	33.30%				50yrs		$ 7,925.40		
Superstructure	$ 29,750.00	50.00%	10.00%				50yrs		$ 5,950.00		
Fittings - Fitout	$ 2,975.00	5.00%	33.30%				20yrs		$ 2,972.03		
Services	$ 14,875.00	25.00%	33.30%				30yrs		$ 9,906.75		

Depreciation Value								$ 28,560.00	$ -	$ 48,769.18	$ 650.26
Church St Toilet Block	Concrete Brick Timber Steel			1970	39	4	$ 95,000.00				
Replacement	$ 95,000.00		0.50%						$ 35,150.00		
Substructure	$ 19,000.00	20.00%	33.30%				50yrs		$ 12,654.00		
Superstructure	$ 47,500.00	50.00%	10.00%				50yrs		$ 9,500.00		
Fittings - Fitout	$ 4,750.00	5.00%	33.30%				20yrs		$ 6,327.00		
Services	$ 23,750.00	25.00%	33.30%				30yrs		$ 15,817.50		
Depreciation Value								$ 47,025.00	$ -	$ 79,448.50	$ 1,059.31
Morpeth Court House Toilet Block	Concrete Brick Timber Slate			1969	40	3	$ 65,000.00				
Replacement	$ 65,000.00		0.50%						$ 24,050.00		
Substructure	$ 13,000.00	20.00%	33.30%				50yrs		$ 8,658.00		
Superstructure	$ 32,500.00	50.00%	10.00%				50yrs		$ 6,500.00		
Fittings - Fitout	$ 3,250.00	5.00%	33.30%				20yrs		$ 3,246.75		
Services	$ 16,250.00	25.00%	33.30%				30yrs		$ 10,822.50		
Depreciation Value								$ 31,200.00	$ -	$ 53,277.25	$ 710.36
Maitland Park New Toilet Block	Concrete Brick Timber Steel			1997	12	4	$ 103,000.00				
Replacement	$ 103,000.00		0.50%						$ 38,110.00		
Substructure	$ 20,600.00	20.00%	33.30%				50yrs		$ 6,859.80		
Superstructure	$ 51,500.00	50.00%	10.00%				50yrs		$ 5,150.00		
Fittings - Fitout	$ 5,150.00	5.00%	33.30%				20yrs		$ 6,859.80		
Services	$ 25,750.00	25.00%	33.30%				30yrs		$ 17,149.50		
Depreciation Value								$ 50,985.00	$ -	$ 74,129.10	$ 988.39
Bolwarra Lookout Toilet Block	Concrete Brick Timber Steel			1960	49	3	$ 30,000.00				
Replacement	$ 30,000.00		0.50%						$ 11,100.00		
Substructure	$ 6,000.00	20.00%	33.30%				50yrs		$ 3,996.00		
Superstructure	$ 15,000.00	50.00%	10.00%				50yrs		$ 3,000.00		
Fittings - Fitout	$ 1,500.00	5.00%	33.30%				20yrs		$ 1,998.00		
Services	$ 7,500.00	25.00%	33.30%				30yrs		$ 7,492.50		
Depreciation Value								$ 12,500.00	$ -	$ 27,586.50	$ 367.82
Morpeth Court House Accessible Toilet Block	Concrete Brick Steel			1990	19	3	$ 70,000.00				
Replacement	$ 70,000.00		0.50%						$ 25,900.00		
Substructure	$ 14,000.00	20.00%	33.30%				50yrs		$ 4,662.00		
Superstructure	$ 31,500.00	45.00%	10.00%				50yrs		$ 3,150.00		
Fittings - Fitout	$ 7,000.00	10.00%	33.30%				20yrs		$ 9,324.00		
Services	$ 17,500.00	25.00%	33.30%				30yrs		$ 17,482.50		
Depreciation Value								$ 34,650.00	$ -	$ 60,518.50	$ 806.91
Queens Wharf Toilet Block	Concrete Brick Timber Steel			2003	6	4	$ 84,200.00				
Replacement	$ 84,200.00		0.50%						$ 31,154.00		
Substructure	$ 16,840.00	20.00%	33.30%				50yrs		$ 5,607.72		
Superstructure	$ 37,890.00	45.00%	10.00%				50yrs		$ 3,789.00		
Fittings - Fitout	$ 8,420.00	10.00%	33.30%				20yrs		$ 11,215.44		
Services	$ 21,050.00	25.00%	33.30%				30yrs		$ 14,019.30		
Depreciation Value								$ 41,679.00	$ -	$ 65,785.46	$ 877.14
Smythe Oval Equipment Shed	Concrete Brick Timber Steel			1982	27	3	$ 16,000.00				
Replacement	$ 16,000.00		0.50%						$ 5,920.00		
Substructure	$ 7,200.00	45.00%	33.30%				50yrs		$ 4,795.20		
Superstructure	$ 8,000.00	50.00%	10.00%				50yrs		$ 1,600.00		
Fittings - Fitout	$ -	0.00%	33.30%				20yrs		$ -		
Services	$ 800.00	5.00%	33.30%				20yrs		$ 1,065.60		
Depreciation Value								$ 7,680.00	$ -	$ 13,380.80	$ 178.41
Maitland Sports Ground Equipment Shed	Concrete Brick Timber Steel			1970	39	3	$ 11,000.00				
Replacement	$ 11,000.00		0.50%						$ 4,070.00		
Substructure	$ 4,950.00	45.00%	33.30%				50yrs		$ 3,296.70		
Superstructure	$ 5,500.00	50.00%	10.00%				50yrs		$ 1,100.00		
Fittings - Fitout	$ -	0.00%	33.30%				20yrs		$ -		
Services	$ 550.00	5.00%	33.30%				20yrs		$ 732.60		
Depreciation Value								$ 5,445.00	$ -	$ 9,199.30	$ 122.66
Maitland Sports Ground Irrigation Shed	Concrete Brick Timber Steel			1980	29	3	$ 4,000.00				
Replacement	$ 4,000.00		0.50%						$ 1,480.00		
Substructure	$ 1,800.00	45.00%	33.30%				50yrs		$ 1,198.80		
Superstructure	$ 2,000.00	50.00%	10.00%				50yrs		$ 400.00		
Fittings - Fitout	$ -	0.00%	33.30%				20yrs		$ -		
Services	$ 200.00	5.00%	33.30%				20yrs		$ 199.80		
Depreciation Value								$ 1,980.00	$ -	$ 3,278.60	$ 43.71
Maitland Park Equipment Shed	Concrete Brick Timber Steel			1978	31	4	$ 15,000.00				
Replacement	$ 15,000.00		0.50%						$ 5,550.00		
Substructure	$ 6,750.00	45.00%	33.30%				50yrs		$ 4,495.50		
Superstructure	$ 7,500.00	50.00%	10.00%				50yrs		$ 1,500.00		
Fittings - Fitout	$ -	0.00%	33.30%				20yrs		$ -		
Services	$ 750.00	5.00%	33.30%				20yrs		$ 749.25		
Depreciation Value								$ 7,425.00	$ -	$ 12,294.75	$ 163.93
Maitland Park Equipment Shed Tank	Concrete			2005	4	4	$ 9,200.00				
Replacement	$ 9,200.00		0.50%						$ 3,404.00		
Substructure	$ -	0.00%	33.30%				50yrs		$ -		
Superstructure	$ 8,740.00	95.00%	10.00%				50yrs		$ 874.00		
Fittings - Fitout	$ -	0.00%	33.30%				20yrs		$ -		
Services	$ 460.00	5.00%	33.30%				30yrs		$ 459.54		
Depreciation Value								$ 4,554.00	$ -	$ 4,737.54	$ 63.17
St.Ethel's Brass & Pipe Band Extra Building	Concrete Brick Timber Steel			1960	49	3	$ 51,000.00				
Replacement	$ 51,000.00		0.50%						$ 18,870.00		

Substructure	$ 1,989.00	3.90%	33.30%				50yrs		$ 1,324.67		
Superstructure	$ 21,267.00	41.70%	10.00%				50yrs		$ 4,253.40		
Fittings - Fitout	$ 7,905.00	15.50%	33.30%				20yrs		$ 10,529.46		
Services	$ 19,074.00	37.40%	33.30%				30yrs		$ 12,703.28		$ -
Depreciation Value								$ 25,245.00	$ -	$ 47,680.82	$ 635.74
Largs Park Equipment Shed	Concrete Brick Timber Steel			1970	39	2	$ 7,000.00				
Replacement	$ 7,000.00		0.50%						$ 2,590.00		
Substructure	$ 2,800.00	40.00%	33.30%				50yrs		$ 1,864.80		
Superstructure	$ 4,200.00	60.00%	10.00%				50yrs		$ 840.00		
Fittings - Fitout	$ -	0.00%	33.30%				20yrs		$ -		
Services	$ -	0.00%	33.30%				30yrs		$ -		
Depreciation Value								$ 3,360.00	$ -	$ 5,294.80	$ 70.60
Bolwarra Sporting Complex Equipment Shed	Concrete Brick Timber Steel			1993	16	5	$ 33,815.15				
Replacement	$ 33,815.15		0.50%						$ 12,511.61		
Substructure	$ 13,526.06	40.00%	33.30%				50yrs		$ 4,504.18		
Superstructure	$ 20,289.09	60.00%	10.00%				50yrs		$ 2,028.91		
Fittings - Fitout	$ -	0.00%	33.30%				20yrs		$ -		
Services	$ -	0.00%	33.30%				30yrs		$ -		
Depreciation Value								$ 27,835.45	$ -	$ 19,044.69	$ 253.93
Rutherford Oval Equipment Shed	Concrete Brick Timber Steel			1980	29	4	$ 38,000.00				
Replacement	$ 38,000.00		0.50%						$ 14,060.00		
Substructure	$ 15,200.00	40.00%	33.30%				50yrs		$ 10,123.20		
Superstructure	$ 22,800.00	60.00%	10.00%				50yrs		$ 4,560.00		
Fittings - Fitout	$ -	0.00%	33.30%				20yrs		$ -		
Services	$ -	0.00%	33.30%				30yrs		$ -		
Depreciation Value								$ 18,240.00	$ -	$ 28,743.20	$ 383.24
Lochinvar Oval Equipment Shed	Concrete Brick Timber Steel			1970	39	4	$ 10,500.00				
Replacement	$ 10,500.00		0.50%						$ 3,885.00		
Substructure	$ 4,200.00	40.00%	33.30%				50yrs		$ 2,797.20		
Superstructure	$ 6,300.00	60.00%	10.00%				50yrs		$ 1,260.00		
Fittings - Fitout	$ -	0.00%	33.30%				20yrs		$ -		
Services	$ -	0.00%	33.30%				30yrs		$ -		
Depreciation Value								$ 5,040.00	$ -	$ 7,942.20	$ 105.90
Fieldsend Oval Equipment Shed	Concrete Brick Timber Steel			1982	27	3	$ 9,900.00				
Replacement	$ 9,900.00		0.50%						$ 3,663.00		
Substructure	$ 3,960.00	40.00%	33.30%				50yrs		$ 2,637.36		
Superstructure	$ 5,940.00	60.00%	10.00%				50yrs		$ 1,188.00		
Fittings - Fitout	$ -	0.00%	33.30%				20yrs		$ -		
Services	$ -	0.00%	33.30%				30yrs		$ -		
Depreciation Value								$ 4,752.00	$ -	$ 7,488.36	$ 99.84
Thornton Park Soccer Equipment Shed	Concrete Brick Timber Steel			1995	14	4	$ 18,000.00				
Replacement	$ 18,000.00		0.50%						$ 6,660.00		
Substructure	$ 8,100.00	45.00%	33.30%				50yrs		$ 2,697.30		
Superstructure	$ 9,000.00	50.00%	10.00%				50yrs		$ 900.00		
Fittings - Fitout	$ -	0.00%	33.30%				20yrs		$ -		
Services	$ 900.00	5.00%	33.30%				20yrs		$ 899.10		
Depreciation Value								$ 8,640.00	$ -	$ 11,156.40	$ 148.75
Woodberry Oval Equipment Shed	Concrete Brick Timber Steel			1982	27	3	$ 12,000.00				
Replacement	$ 12,000.00		0.50%						$ 4,440.00		
Substructure	$ 4,800.00	40.00%	33.30%				50yrs		$ 3,196.80		
Superstructure	$ 7,200.00	60.00%	10.00%				50yrs		$ 1,440.00		
Fittings - Fitout	$ -	0.00%	33.30%				20yrs		$ -		
Services	$ -	0.00%	33.30%				20yrs		$ -		
Depreciation Value								$ 5,760.00	$ -	$ 9,076.80	$ 121.02
Woodberry Oval Additional Equipment Shed	Concrete Brick Timber Steel			1990	19	3	$ 13,000.00				
Replacement	$ 13,000.00		0.50%						$ 4,810.00		
Substructure	$ 5,200.00	40.00%	33.30%				50yrs		$ 3,463.20		
Superstructure	$ 7,800.00	60.00%	10.00%				50yrs		$ 1,560.00		
Fittings - Fitout	$ -	0.00%	33.30%				20yrs		$ -		
Services	$ -	0.00%	33.30%				20yrs		$ -		
Depreciation Value								$ 6,240.00	$ -	$ 9,833.20	$ 131.11
Victoria St Tennis Equipment Shed	Concrete Brick Timber Steel			1960	49	3	$ 13,000.00				
Replacement	$ 13,000.00		0.50%						$ 4,810.00		
Substructure	$ 5,850.00	45.00%	33.30%				50yrs		$ 3,896.10		
Superstructure	$ 6,500.00	50.00%	10.00%				50yrs		$ 1,300.00		
Fittings - Fitout	$ -	0.00%	33.30%				20yrs		$ -		
Services	$ 650.00	5.00%	33.30%				20yrs		$ 865.80		
Depreciation Value								$ 6,240.00	$ -	$ 10,871.90	$ 144.96
Tenambit Oval Weather Shelter	Concrete Brick Timber Steel			1975	34	2	$ 46,000.00				
Replacement	$ 46,000.00		0.50%						$ 17,020.00		
Substructure	$ 18,400.00	40.00%	33.30%				50yrs		$ 12,254.40		
Superstructure	$ 27,600.00	60.00%	10.00%				50yrs		$ 5,520.00		
Fittings - Fitout	$ -	0.00%	33.30%				20yrs		$ -		
Services	$ -	0.00%	33.30%				20yrs		$ -		
Depreciation Value								$ 22,080.00	$ -	$ 34,794.40	$ 463.93
Gillieston Heights Equipment Shed	Concrete Brick Timber Steel			1975	34	2	$ 11,500.00				
Replacement	$ 11,500.00		0.50%						$ 4,255.00		
Substructure	$ 4,600.00	40.00%	33.30%				50yrs		$ 3,063.60		
Superstructure	$ 6,900.00	60.00%	10.00%				50yrs		$ 1,380.00		
Fittings - Fitout	$ -	0.00%	33.30%				20yrs		$ -		
Services	$ -	0.00%	33.30%				20yrs		$ -		
Depreciation Value								$ 5,903.33	$ -	$ 8,698.60	$ 115.98

Norm Chapman Reserve Equipment Shed	Concrete Brick Timber Steel			2004	5	4	$ 60,000.00																																																																															
Replacement	$ 60,000.00		0.50%						1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	$ 22,200.00		
Substructure	$ 27,000.00	45.00%	33.30%				50yrs																																										1																														$ 8,991.00		
Superstructure	$ 30,000.00	50.00%	10.00%				50yrs																																										1																														$ 3,000.00		
Fittings - Fitout	$ -	0.00%	33.30%				20yrs																																																																												$ -		
Services	$ 3,000.00	5.00%	33.30%				20yrs																		1																																											1																				$ 1,998.00		
Depreciation Value								$ 29,700.00																																																																												$ -	$ 36,189.00	$ 482.52
Coronation Oval New Storage Shed	Concrete Brick Timber Steel			2005	4	5	$ 38,000.00																																																																															
Replacement	$ 38,000.00		0.50%						1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	$ 14,060.00		
Substructure	$ 17,100.00	45.00%	33.30%				50yrs																																											1																													$ 5,694.30		
Superstructure	$ 19,000.00	50.00%	10.00%				50yrs																																											1																													$ 1,900.00		
Fittings - Fitout	$ -	0.00%	33.30%				20yrs																																																																												$ -		
Services	$ 1,900.00	5.00%	33.30%				20yrs																			1																				1																				1																			$ 1,898.10		
Depreciation Value								$ 18,240.00																																																																											$ -	$ 23,552.40	$ 314.03
Rutherford Oval New Storage Shed	Concrete Brick Timber Steel			2005	4	5	$ 38,000.00																																																																															
Replacement	$ 38,000.00		0.50%						1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	$ 14,060.00		
Substructure	$ 17,100.00	45.00%	33.30%				50yrs																																											1																													$ 5,694.30		
Superstructure	$ 19,000.00	50.00%	10.00%				50yrs																																											1																													$ 1,900.00		
Fittings - Fitout	$ -	0.00%	33.30%				20yrs																																																																											$ -		
Services	$ 1,900.00	5.00%	33.30%				20yrs																			1																				1																				1																			$ 1,898.10		
Depreciation Value								$ 18,240.00																																																																												$ -	$ 23,552.40	$ 314.03
Maitland Park Croquet Clubhouse Equipment Shed	Concrete Brick Timber Steel			2000	9	5	$ 10,053.52																																																																															
Replacement	$ 10,053.52		0.50%						1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	$ 3,719.80		
Substructure	$ 4,524.08	45.00%	33.30%				50yrs																																	1																																																$ 1,506.52		
Superstructure	$ 5,026.76	50.00%	10.00%				50yrs																																	1																																																$ 502.68		
Fittings - Fitout	$ -	0.00%	33.30%				20yrs																																																																											$ -		
Services	$ 502.68	5.00%	33.30%				20yrs		1																				1																				1																				1														$ 669.56		
Depreciation Value								$ 10,053.52																																																																												$ -	$ 6,398.56	$ 85.31
BMX Track Beryl Humble Complex Equipment Shed	Concrete			1995	14	3	$ 7,350.00																																																																															
Replacement	$ 7,350.00		0.50%						1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	$ 2,719.50		
Substructure	$ 3,307.50	45.00%	33.30%				50yrs																												1																																																									$ 1,101.40		
Superstructure	$ 3,675.00	50.00%	10.00%				50yrs																												1																																																					$ 367.50		
Fittings - Fitout	$ -	0.00%	33.30%				20yrs																																																																											$ -		
Services	$ 367.50	5.00%	33.30%				20yrs																		1																				1																				1																		$ 367.13		
Depreciation Value								$ 3,553.00																																																																												$ -	$ 4,555.53	$ 60.74
																																																																																				$ 56,101,883.39	$ 56,101,883.39	$ 748,025.11
							$81,366,503.69	$35,633,724.85	$861,324.02	$603,775.90	$860,939.74	$379,629.64	$765,827.39	$509,465.84	$552,537.49	$608,572.62	$678,028.08	$843,523.18	$876,934.48	$572,194.17	$564,281.61	$896,443.19	$945,390.72	$863,937.74	$959,314.69	$887,185.42	$720,136.89	$906,738.26	$981,014.76	$836,273.16	$658,787.21	$596,993.83	$764,969.05	$530,428.21	$561,385.23	$553,658.74	$860,950.98	$890,177.31	$966,443.92	$425,202.86	$768,822.31	$850,955.39	$911,419.19	$743,738.51	$780,168.04	$848,643.03	$763,792.31	$855,215.44	$580,343.71	$446,607.59	$384,725.34	$576,779.16	$907,206.42	$523,468.74	$884,285.10	$878,462.11	$965,746.47	$851,566.13	$908,313.82	$753,766.99	$825,828.84	$860,768.90	$879,051.27	$871,806.38	$979,270.85	$891,096.70	$955,017.33	$926,509.76	$837,414.78	$434,175.09	$404,364.00	$374,073.40	$921,176.14	$462,602.98	$534,697.39	$511,696.99	$940,797.14	$1,035,723.41	$914,818.53	$929,927.38	$955,034.87	$989,539.12	$56,101,883.39		

Document Control	

Document ID: 59_07_070909_nams.plus_amp template v11

Rev No	Date	Revision Details	Author	Reviewer	Approver
3	29/01/2010	Reformatted into IPWEA NAMS	EJ	EJ	CMc
3.01	31/05/2010	Content Revised	EJ	CMc	CJ
3.02	28/02/2011	Updated content following revaluation	EJ		

TABLE OF CONTENTS

1. EXECUTIVE SUMMARY

What Council Provides

Council provides a drainage network to enable the conveyance of stormwater to the downstream destination while considering the safety of the community and the protection of property.

Asset Category	Quantity
Conduits and Culverts	280.8km
Pits	11355
Headwalls	660
Floodgates	33
Detention Basins	71
Gross Pollutant Traps	50

What does it Cost?

There are two key indicators of cost to provide the drainage asset management service.

- 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 Council's long term financial plan.

The total maintenance and capital renewal expenditure required to provide the drainage network the in the next 15 years is estimated at $1.1M.

Plans for the Future

Council plans to operate and maintain the drainage network to achieve the following strategic objectives.

1. Ensure the drainage network is maintained at a safe and functional standard as set out in this asset management plan.
2. Ensure the drainage network meets the demand of future growth as set out in this asset management plan.
3. Keep up to date with current best practice management techniques.

Measuring our Performance

Quality
Drainage assets will be maintained in a reasonably usable condition. 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
The intent is that an appropriate drainage network is maintained in partnership with other levels of government and stakeholders to provide an adequate and safe drainage network.

Drainage asset attributes will be maintained at a safe level and associated signage and equipment be provided as needed to ensure public safety. We need to ensure current and future demands are met.

Safety
We inspect all WSUD assets regularly. Pit and pipe networks have defects identified during rain events where there are failures. Works are prioritised and defects are repaired in accordance with our risk management plan to ensure they are safe.

The Next Steps

The actions resulting from this asset management plan are:

- Continue formal inspections
- Continue to prioritise maintenance and capital works in accordance with the risk management plan
- Undertake asset inventory of floodgates and open channels

2. INTRODUCTION

2.1 Background

This asset management plan demonstrates responsive management of assets (and services provided from assets), compliance with regulatory requirements, and to communicate funding required to provide the required levels of service.

The asset management plan is to be read with the following associated planning documents:

Maitland 2021 Community Strategic Plan 2011

Maitland Delivery Program 2011

Asset Management Policy 2011

Asset Management Strategy 2011

This asset management plan covers the infrastructure assets identified in Table 2.1.

Table 2.1. Assets covered by this Plan

Asset category	Quantity	Replacement Value ($M)
Conduits and Culverts	280.8km	$69.48M
Pits	11355	$14.52M
Headwalls	660	$0.59M
Floodgates	33	$0.40M
Detention Basins	71	$19.19M
Gross Pollutant Traps	50	$4.77M
TOTAL		**$108.77M**

Key stakeholders in the preparation and implementation of this asset management plan are:

Community	User safety, Work requests & Satisfaction
Assets & Infrastructure Planning	Planning / Design & Control
City Works & Services	Provision of Services
Developers	Compliance and Contribution

2.2 Goals and Objectives of Asset Management

The Council exists to provide services to its community. Some of these services are provided by infrastructure assets. Council has acquired infrastructure assets by 'purchase', by contract, construction by council staff and by donation of assets constructed by developers and others to meet increased levels of service.

Council'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 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,
- Sustainable use of physical resources,
- Continuous improvement in asset management practices.[1]

2.3 Plan Framework

Key elements of the plan are

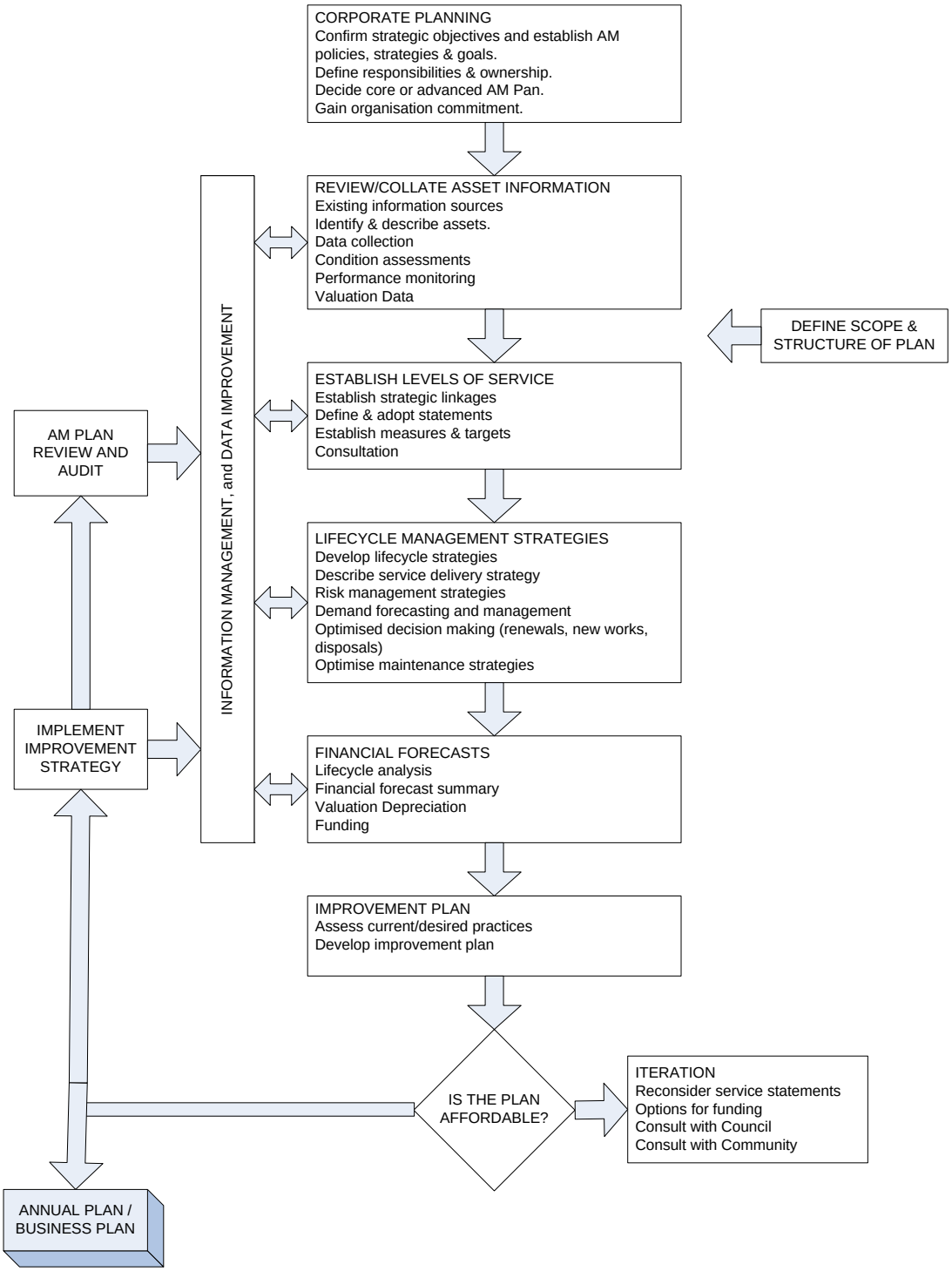
- Levels of service – specifies the services and levels of service to be provided by council.
- Future demand – how this will impact on future service delivery and how this is to be met.
- Life cycle management – how Council will manage its existing and future assets to provide the required services
- 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 Council's objectives.
- Asset management improvement plan

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

[1] IIMM 2006 Sec 1.1.3, p 1.3

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. The ground work for this upgrade has begun.

3. LEVELS OF SERVICE

3.1 Customer Research and Expectations

The community expect that the drainage system is maintained and operated to a level that localised flooding is minimised and the environment is protected. This reinforces the need for GPTs and other such devices to increase the quality of stormwater released to downstream water systems. This community expectation has been determined from the number and information provided by customer service requests.

3.2 Legislative Requirements

Council has to meet many legislative requirements including Australian and State legislation and State regulations. These include:

Table 3.2. Legislative Requirements

Legislation	Requirement
Local Government Act 1993	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.
Protection of the Environment Operations Act 1997	Ensure the protection of the environment through Design and Construction practices.
Fisheries Management Act 1994	Ensure that fish passage is not impeded and preserve and conserve key fish habitats and threatened communities.
Threatened Species Conservation Act 1995	Ensure conservation of biological diversity, key habitat and ecologically sustainable development.
Native Vegetation Conservation Act 1997	Ensure conservation and management of native vegetation.
Water Management Act 2000	Maintain creeks and other natural waterways to ensure flow isn't impeded and the systems are as free as possible of weed species.

3.3 Current Levels of Service

Council has defined service levels in three ways.

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.

Environmental levels of service relate to the quantity of stormwater received by downstream natural water systems, as well as the speed at which this water is discharged.

Supporting the community service levels are operational or technical measures of performance developed to ensure that the minimum community levels of service are met. These technical measures relate to service criteria such as:

Service Criteria	**Technical measures may relate to**
Quality	Functionality of drainage systems
Quantity	Adequate size of drainage systems
Safety	Number of injury accidents
Environmental	Quality of water draining to wetlands

Performance measures for service levels include information gathered during inspections by asset and operational staff, community feedback, condition rating and the amount of works completed.

The level of service of drainage assets is provided in a cost-effective manner, ensuring that the needs of the community are met city wide. A prioritisation process is undertaken, using the risk management process outlined later, to manage the high number of customer requests and works identified during inspections. The prioritisation process ensures high priority works are undertaken in a timely fashion and low priority works are undertaken when resources permit.

4. FUTURE DEMAND

4.1 Demand Forecast

Factors affecting demand include population change, changes in demographics, seasonal factors, environmental obligations, consumer preferences and expectations, economic factors, agricultural practices, environmental awareness, etc.

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

Table 4.1. Demand Factors, Projections and Impact on Services

Demand factor	Present position	Projection
Population	2001 Census – 53,803	2026 – 96,000
Demographics	Commercial – 71.76%	
	Industrial – 26.47%	
	Rural – 1.77%	

4.2 Changes in Technology

Technology changes are forecast to affect the delivery of services covered by this plan in the following areas.

Table 4.2. Changes in Technology and Forecast effect on Service Delivery

Technology Change	Effect on Service Delivery
New or improved Water Sensitive Urban Design (WSUD) devices	Different maintenance practices and equipment required to maintain and achieve environmental outcomes / Correct device choice for particular area to achieve water quality outcomes.

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.

4.4 New Assets from Growth

The new assets required to meet growth will be acquired from land developments and constructed by Council. The new asset values are summarised in Table 4.4.

Table 4.4. New Assets from Growth – 2008/9

Asset Category	Quantity	Cost
Pits	77	$114,257
Headwalls	9	$8,010
Ponds	1	$438,240
Pipes	1.9km	$379,673

Acquiring these new assets commits council to fund ongoing operations and maintenance costs for the period that the service provided from the assets is required. These future costs are identified and considered in developing forecasts of future operating and maintenance costs.

5. LIFECYCLE MANAGEMENT PLAN

The lifecycle management plan details how Council 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

The data on drainage assets is stored in a GIS based system which is updated as new development areas and capital or maintenance works are installed. The data can be output into a database to allow the information to be reported on. Pit and pipe sizes, lengths, inverts, date of installation is recorded. Similar data is recorded for the other drainage asset categories.

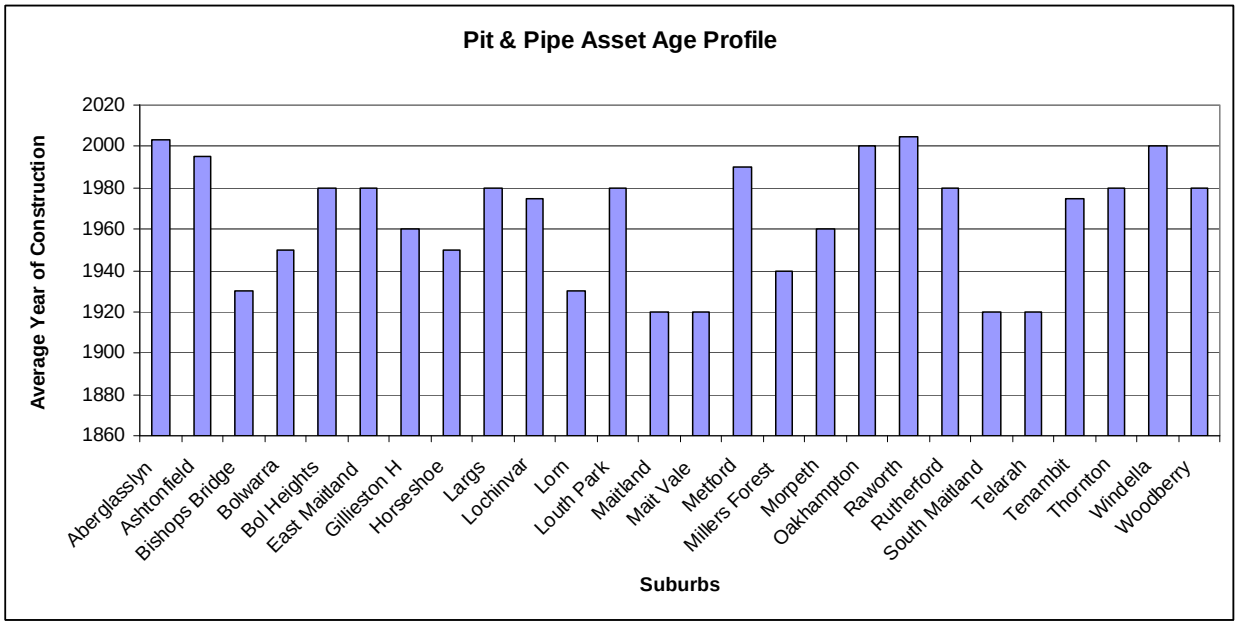
5.1.1 Physical parameters

The assets covered by this asset management plan are shown below.

Asset Category	Quantity
Conduits and Culverts	280.8km
Pits	11355
Headwalls	660
Floodgates	33
Detention Basins	71
Gross Pollutant Traps	50

The age profile of Council's assets is shown below.

Fig1. Asset Age Profile



The average age takes into account the amount of pipe and pits constructed at different times and these have been averaged to find the average year of construction for pit and pipe systems in each suburb of Maitland's LGA.

The WSUD devices throughout the LGA are up to 15 years old, with the majority of the ponds and GPTs constructed after 2000.

5.1.2 Asset capacity and performance

Council'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.

Table 5.1.2. Known Service Performance Deficiencies

Site	Project/works Description	Estimate
90 Aberglasslyn Rd, Rutherford	4 x pipes replaced	$20,000
Rockleigh Street, Thornton	Continue SW pipes 30m	$8,000
Brooks Street, Telarah	Install pipe system to replace/assist existing from Dee Street to south of Capper	$150,000
Woodlands Drive, Thornton	Headwall at property boundary (no36) connected to 3x 375mm for 15m to a 1200x2400 sag pit. Connect this with 675mm pipe to 900x900 pit adjacent the others in low point, this then connects to existing headwall with 675mm pipe under Woodlands Drive	$160,000
Currawong Close, Thornton	Replace no10 and 11 driveway with 450x900 box culverts, Install 2x 900mm pits downstream of the cul de sac and 35m of 600mm pipe to connect them	$65,000
Woodlands Drive, Thornton	Upgrade piped system adjacent 17 Woodlands Drive, as in Woodlands Estate Stormwater Study	$40,000
Bligh Street, Telarah	Install drainage line as identified in Telarah Catchment Study	$175,000
Church Street, Maitland	Upgrade drainage system from no29 to outlet off Stillsbury Lane	$300,000
Woodlands Drive, Thornton	Upgrade piped system adjacent 30 Woodlands Drive, as in Woodlands Estate Stormwater Study	$155,000
Honeyeater Place, Thornton	Upgrade piped system downstream of Honeyeater Place, as in Woodlands Estate Stormwater Study	$160,000
Reflection Drive, Louth Park	Erosion Control and Rehabilitation behind no87	$100,000
South Street, Telarah	Upgrade of pipe system to natural channel from Kerrie Close	$250,000
Thornbill Grove, Thornton	Upgrade drainage system in Thornbill Grove, as in Woodlands Estate Stormwater Study	$200,000
Bent Street, Maitland	Upgrade drainage in Bent Street and Fry Street from Grant Street to Athel D'Ombrain Drive	$250,000
Thomas Coke Dr, Thornton	Construct GPT at end of Catchment	$200,000
Capper Street, Telarah	Install pipe system to replace/assist existing from Parkes to Brooks Street	$75,000

The above service deficiencies were identified from our asset register and development investigation areas.

5.1.3 Asset condition

The condition of Council's assets in the above areas identified as having service performance deficiencies require capital expenditure over a number of years to bring the assets up to Council's current required

level of service. Additionally, capital and maintenance expenditure is required in more recently developed areas to ensure the assets do not fall to an unacceptable level.

Drainage assets have a condition rating related to their age based deterioration.

Condition is measured using a 1 – 5 rating system.[2]

Rating	Description of Condition
5	Only planned maintenance required.
4	Minor maintenance required plus planned maintenance.
3	Significant maintenance required.
2	Significant renewal/upgrade required.
1	Unserviceable.

Overall, the asset condition of the Drainage network in Maitland is 3, being of average condition with significant maintenance required. This being the average means that there are drainage systems with conditions rating from 1 through to 5. Overall, 70% of the drainage network has a rating of 3 to 5, and 30% of the network has a rating of 1 to 2. The target standard for the drainage network is to have 85% at 3-5 and 15% at 1-2.

5.1.4 Asset valuations

The value of assets as in 2009 covered by this asset management plan is summarised below. Assets were last revalued for the development of this plan.

Current Replacement Cost	$108.77 M
Depreciable Amount	$108.77M
Depreciated Replacement Cost	$95.56M
Annual Depreciation Expense	$0.98M

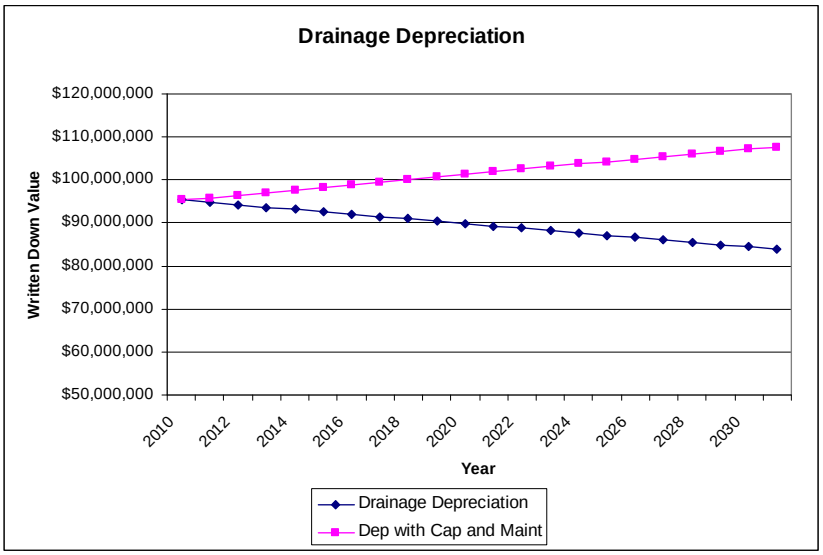
Council's sustainability reporting reports the rate of annual asset consumption and compares this to asset renewal and asset upgrade and expansion.

The average rate of asset consumption is 0.65%. This is due to static structures such as pits, pipes and GPTs having a life of 200 years, and devices such as ponds having a life of 50 years or up to 100 years with adequate maintenance and renewal.

A summary of the asset depreciation without maintenance or capital expenditure and the asset rejuvenation with capital and maintenance expenditure over the next 50 years is shown below.

Fig 2. Forecast expenditure and depreciation of Drainage Assets

[2] IIMM 2006, Appendix B, p B:1-3 ('cyclic' modified to 'planned')



5.2 Risk Management Plan

An assessment of risks associated with service delivery from infrastructure assets has identified critical risks to Council. The risk assessment process identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, develops a risk rating, evaluates the risk and develops a risk treatment plan for non-acceptable risks.

See Council's Road Risk Management Procedure for risk assessment.

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.

5.3.1 Maintenance plan

Maintenance includes reactive, planned and cyclic maintenance work activities.

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 Council's Civil Maintenance Delivery Program (MDP). MDP 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.

Cyclic maintenance is the replacement of higher value components/sub-components of assets that is undertaken on a regular cycle including the cleaning of GPTs and desilting of outlet pipes from WSUD devices. This work generally falls in the maintenance expenditure.

Maintenance expenditure trends are shown in Table 5.3.1

Table 5.3.1. Maintenance Expenditure Trends

Year	Maintenance Expenditure		
	Reactive	**Planned**	**Cyclic**
2005/06	$300,000	$200,000	$100,000
2006/07	$200,000	$240,000	$60,000
2007/08	$100,000	$240,000	$186,300
2008/09	$100,000	$240,000	$192,500

Planned maintenance work has increased and will continue to increase in the next financial year due to the implementation of the Civil Maintenance Delivery Program and the implementation of this Asset Management Plan.

Maintenance expenditure levels are considered to be inadequate to meet required service levels. Future revision of this asset management plan will include linking required maintenance expenditures with required service levels.

Assessment and prioritisation of reactive maintenance is undertaken by Council staff using experience and judgement.

5.3.2 Standards and specifications

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

Relevant Australian Standards for construction eg. Pipe Systems.

Maitland City Council Manual of Engineering Standards

5.3.3 Summary of future maintenance expenditures

Future maintenance expenditure is forecast as below. Note that all costs are shown in current 2009/10 dollar values.

A cost per year of $154,500 for WSUD devices and up to $495,500 for other drainage types was derived from the cyclic and planned maintenance of WSUD devices, and the trend for cost of reactive and planned work of pit and pipe systems throughout the LGA in previous years. This will require a total maintenance budget of $650,000 per annum.

Deferred maintenance, ie 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. The prioritisation of drainage maintenance works can mean that some jobs are delayed according to Council's risk management plan, however the ideal amount to spend of maintenance works is above. Spending money of maintenance can mean that deterioration of assets is slowed or delayed and therefore capital works are reduced.

Maintenance is funded from Council'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

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 and scheduled in future works programmes. The priority ranking criteria is detailed in Table 5.4.1.

Table 5.4.1 Renewal Priority Ranking Criteria

Criteria	Weighting
Fit for purpose – water volumes	25%
Safety	50%
Maintenance requirements	15%
Environmental impact	10%
Total	100%

Renewal will be undertaken using 'low-cost' renewal methods where practical. The aim of 'low-cost' renewals is to restore the service potential or future economic benefits of the asset by renewing the assets at a cost less than replacement cost.

5.4.2 Renewal standards

Renewal work is carried out in carried out in accordance with a number of Standards and Specifications, and MCC Manual of Engineering Standards.

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 however are interlinked with capital replacement and maintenance. For WSUD devices, renewal is interlinked with maintenance as the renewal of a pond is the cleaning and dredging of silt and sediment. For pit and pipe systems, renewal is either maintenance as with repair of pipe slippage or capital as with replacement of sections of broken pipe. Therefore, the costs are shown above in maintenance expenditure and below with capital expenditure. Overall, renewal is expected to be approximately 40% of overall maintenance and capital costs, based on the upgrade needs for areas below standard as identified earlier.

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 Council from land development. These assets from growth are considered in Section 4.4.

5.5.1 Selection criteria

New assets and upgrade/expansion of existing assets are identified from various sources such as councillor 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 and scheduled in future works programmes. The priority ranking criteria is detailed below.

Table 5.5.1 New Assets Priority Ranking Criteria

Criteria	Weighting
Development Requirements / Contributions	50%
Age	25%
Condition	25%

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 shown in Section 5.4.2.

5.6 Disposal Plan

Disposal includes any activity associated with disposal of a decommissioned asset including sale, demolition or relocation. There are currently no assets identified for possible decommissioning and disposal.

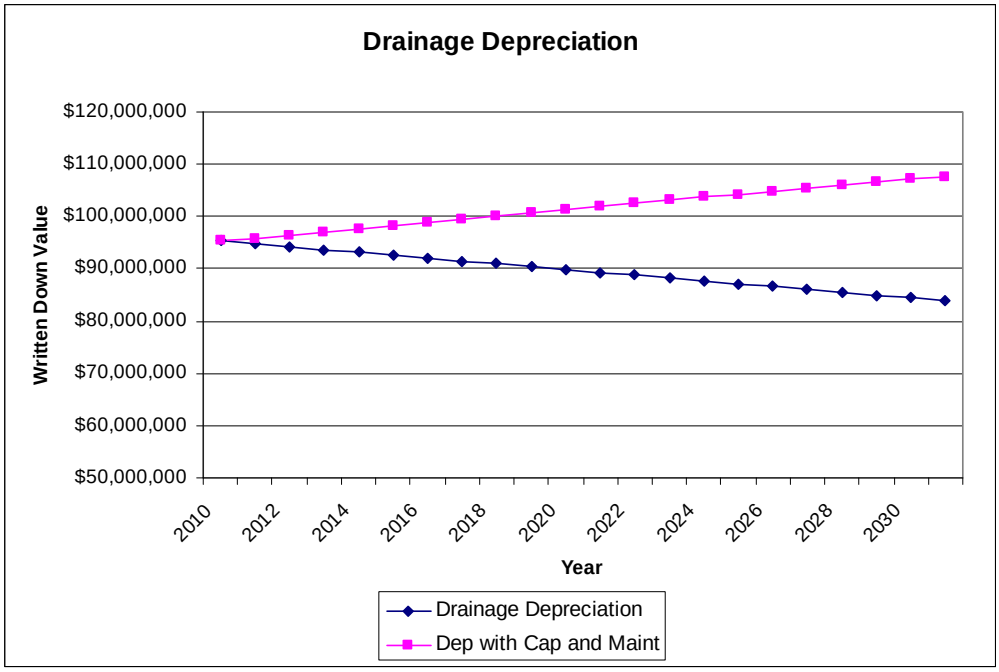
6. FINANCIAL SUMMARY

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 Fig 4 for planned operating (operations and maintenance) and capital expenditure (renewal and upgrade/expansion/new assets).

Fig 4. Planned Operating and Capital Expenditure



Note that all costs are shown in current 2010/11 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 15 year financial planning period.

Medium term – 15 year financial planning period

This asset management plan identifies the estimated maintenance and capital expenditures required to provide an agreed level of service to the community over a 15 year period for input into a 15 year financial plan and funding plan to provide the service in a sustainable manner. See figure 5 for a financial outlook.

Fig 5. Projected Budget 15years in 2010/11 dollar values

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Capital	$450,000	$463,500	$515,000	$515,000	$515,000	$515,000	$515,000	$515,000	$515,000	$515,000	$515,000	$515,000	$515,000	$515,000	$515,000
Maintenance	$618,000	$618,000	$618,000	$618,000	$618,000	$618,000	$618,000	$618,000	$618,000	$618,000	$618,000	$618,000	$618,000	$618,000	$618,000
TOTAL	$1,068,000	$1,081,000	$1,133,000	$1,133,000	$1,133,000	$1,133,000	$1,133,000	$1,133,000	$1,133,000	$1,133,000	$1,133,000	$1,133,000	$1,133,000	$1,133,000	$1,133,000

Council's long term financial plan covers a 25 year planning period, as shown in the figure above. The total maintenance and capital renewal expenditure required over the 25 years is expected to bring the assets, both WSUD and conventional pit and pipe systems close to the renewal cost of these assets.

This is an average expenditure of between $0.9M and $1.1M per year of maintenance and capital combined.

6.2 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 asset management plan are:

- Useful life of static structures such as GPTs, pits and pipes are up to 200 years
- Useful life of systems such as detention basins are between 100 and 200 years

Accuracy of future financial forecasts may be improved in future revisions of this asset management plan by the following actions.

- Undertaking an inventory and in-depth cost analysis of floodgates
- Undertaking and including an open channel inventory and cost analysis

7. PLAN IMPROVEMENT AND MONITORING

7.1 Performance Measures

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

- The degree to which the required cashflows identified in this asset management plan are incorporated into council'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;

7.2 Improvement Plan

The asset management improvement plan generated from this asset management plan is shown in Table 7.2.

Table 7.2 Improvement Plan

Task No	Task	Responsibility	Resources Required	Timeline
1.	Floodgate inventory and cost analysis.	Assets and CWS		11/12
2.	Open Channel inventory and cost analysis.	Assets		11/12

7.3 Monitoring and Review Procedures

This asset management plan will be reviewed during annual budget preparation 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.

The Plan has a life of 4 years and is due for revision and updating within 2 years of each Council election.

REFERENCES

Maitland City Council, 2008, 'Manual of Engineering Standards'

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

APPENDICES

Appendix A – Risk Management Plan
Appendix B – Required Capital Works in Short to Medium Term
Appendix C – 50 Year Cost Analysis
Appendix D – Peter Coombes Report – Lifecycle Analysis

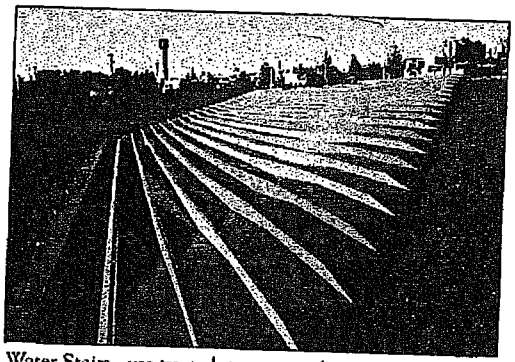
DRAINAGE SUMMARY

		Replacement Value	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Headwalls	660	$587,400	$486,625	$483,688	$480,751	$477,814	$474,877	$471,940	$469,003	$466,066	$463,129	$460,192
Pipes	280.8km	$69,476,459	$59,189,111	$58,841,729	$58,494,347	$58,146,964	$57,799,582	$57,452,200	$57,104,818	$56,757,435	$56,410,053	$56,062,671
Pits	11355	$14,517,690	$12,402,284	$12,329,696	$12,257,107	$12,184,519	$12,111,930	$12,039,342	$11,966,753	$11,894,165	$11,821,576	$11,748,988
GPTs	50	$4,998,800	$4,767,802	$4,742,808	$4,717,814	$4,692,820	$4,667,826	$4,642,832	$4,617,838	$4,592,844	$4,567,850	$4,542,856
Ponds	71	$19,186,831	$18,441,748	$18,345,813	$18,249,879	$18,153,945	$18,058,011	$17,962,077	$17,866,143	$17,770,209	$17,674,274	$17,578,340
TOTAL		**$108,767,180**	**$95,287,570**	**$94,743,734**	**$94,199,898**	**$93,656,062**	**$93,112,226**	**$92,568,390**	**$92,024,554**	**$91,480,718**	**$90,936,883**	**$90,393,047**

2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
$457,255	$454,318	$451,381	$448,444	$445,507	$442,570	$439,633	$436,696	$433,759	$430,822	$427,885	$424,948
$55,715,288	$55,367,906	$55,020,524	$54,673,142	$54,325,759	$53,978,377	$53,630,995	$53,283,612	$52,936,230	$52,588,848	$52,241,465	$51,894,083
$11,676,399	$11,603,811	$11,531,223	$11,458,634	$11,386,046	$11,313,457	$11,240,869	$11,168,280	$11,095,692	$11,023,103	$10,950,515	$10,877,927
$4,517,862	$4,492,868	$4,467,874	$4,442,880	$4,417,886	$4,392,892	$4,367,898	$4,342,904	$4,317,910	$4,292,916	$4,267,922	$4,242,928
$17,482,406	$17,386,472	$17,290,538	$17,194,604	$17,098,669	$17,002,735	$16,906,801	$16,810,867	$16,714,933	$16,618,999	$16,523,065	$16,427,130
$89,849,211	**$89,305,375**	**$88,761,539**	**$88,217,703**	**$87,673,867**	**$87,130,031**	**$86,586,195**	**$86,042,359**	**$85,498,524**	**$84,954,688**	**$84,410,852**	**$83,867,016**

Waterfall

Journal of the Stormwater Industry Association



Water Stairs - use treated stormwater from precinct wetland to provide "cascading water feature". WSUD, Taking it to the Streets - Malcolm Eadie reports. Page 26

Deterioration, Depreciation & Serviceability of Stormwater Pipes

By understanding the way stormwater pipes deteriorate in the field and the service hydraulic capacity reductions due to external factors, it changes the way we should be depreciating the pipe assets. The Markov model analysis by Peter Coombes, Tom Micevski & George Kuczera of the University of Newcastle provides a new insight into how Local Government Asset Managers should reassess depreciation rates to improve financial accounting & free up capital for new works.

Page 7.

Stormwater INDUSTRY ASSOCIATION INC.

Print Post Approved PP 247978/100024. ISSN 1323-8051

ISSUE 16 SPRING 2002

Deterioration, Depreciation and Serviceability of Stormwater Pipes

Peter J. Coombes, Tom Micevski and George Kuczera
Civil, Surveying and Environmental Engineering,
University of Newcastle, Callaghan, NSW

Introduction

Stormwater pipes are provided to convey stormwater from streets and adjoining properties without nuisance from storm events of a given frequency as defined by average recurrence interval (ARI) (Institution of Engineers, 1987). The high costs associated with the installation and maintenance of stormwater pipe networks, as with other forms of buried infrastructure, demand that an accurate evaluation of their structural condition and the level of service provided by the pipes is essential for their effective management. This provides the motivation for this study, which models the deterioration of stormwater pipes as a Markov process and then discusses the serviceability provided by stormwater pipes. A detailed description of this study is provided by Micevski et al. (2002).

Furthermore, current Australian accounting standards (AASs), namely AAS27 (AARF, 1996), require that Local Government prepare annual financial statements. These statements must include, amongst other things, the depreciated amount for the stormwater pipes that are under their control. AAS27 calls upon AAS4 (AARF, 1997), which describes various depreciation methods. Both accounting standards rely on the Local Government Asset Accounting Manual (LGAAM; DLGC, 1995) to define the depreciation method. The LGAAM does not give a useful life for stormwater pipes; however, useful lives for sewerage and water supply pipes are provided. These useful lives are 80 years for water mains, while sewerage pipes range from 40-70 years.

The currently accepted industry practice is to use linear depreciation over a useful life of either 70 or 100 years for stormwater pipes. A more rational approach to assessing depreciation is to base it on structural deterioration.

The structural condition, and hence structural deterioration, of stormwater pipes is estimated through the use of condition ratings. The condition ratings take the form of five discrete states. These states are selected for consistency with the condition ratings specified within the LGAAM. State 1 represents a pipe in a near new condition, while state 5 represents a pipe in an unserviceable, i.e. failed, condition. These states are described in Table 1.

Review of the literature revealed that Markov models for infrastructure deterioration are quite common, with road bridges being a frequent candidate for analysis. For example, Cesare et al. (1992) estimated the Markov transition probabilities for various bridge types and bridge components using non-linear programming methods.

Structural Condition	Physical Description
1	Near perfect condition
2	Some superficial deterioration
3	Serious deterioration, requiring substantial maintenance
4	Level of deterioration affects the fabric of the asset, requiring major reconstruction or refurbishment
5	Level of deterioration is such to render the asset unserviceable

Table 1: Description of structural condition states (DLGC, 1995)

Some deterioration models for sewer pipe networks have been developed. Røstum et al. (1999) modelled the deterioration of Norwegian sewer pipes using a cohort survival model based on the Herz (1996) distribution. Mailhot et al. (2000) estimated the structural deterioration of a Canadian sewer network using a Weibull distribution model. Wirahadikusumah et al. (2001) modelled the deterioration of American combined sewer pipes using a Markov model calibrated to an exponential regression curve. However, the deterioration processes affecting sewer and stormwater pipes are considered to be different. Sewer pipes are subject to internal attack by acids associated with sewage, whereas stormwater is relatively clean, resulting in pipe damage being caused primarily by external factors.

No deterioration models for stormwater pipe networks were found within the literature. However, it is noted that Jacobs et al. (1993) used chance constrained multi-objective programming to optimally schedule the rehabilitation of a stormwater drainage network. Their model assumes that pipes deteriorate linearly with time and aims to minimise the total expected costs from rehabilitation and expected losses from wear out and flooding.

The principal contribution of this study is the application of a multi-state Markov model to simulate the structural deterioration of stormwater pipes. Bayesian methods are used to calibrate the model and statistical hypothesis tests are used to validate the suitability of the model.

The organisation of the paper is as follows. The next section provides a brief overview of the case study involving data from the stormwater network located in Newcastle, NSW. The Markov model is introduced and the procedures used to calibrate and validate the Markov model, as well as the theory associated with these procedures are discussed. The results of the case study then

follow. Finally, the results from laboratory studies of serviceability of stormwater pipes are presented along with a discussion of results.

Case Study Description

Data Source

The data set used in the case study was obtained from the Newcastle City Council (NCC) stormwater asset database. The data set consisted of a total of 497 pipes. Information recorded for each pipe included asset identification, condition rating, survey, and other general pipe information. All pipes were situated within road reservations, and so were subject to traffic loadings.

The total length of pipes within the database is 17 km, whilst the length of the entire NCC stormwater network is 380 km - providing a sample size of approx. 4.5%.

The pipes ranged in age from 3 to 110 years, with approximately 60% of pipes being contained within the 51 and 56 year age groups. In accordance with industry practice and accounting standards, NCC uses linear depreciation over a useful life of 70 years. The replacement value of the network was estimated, in 1997, to be approx. $145 million.

Condition Evaluation Procedure

The structural and serviceability condition ratings of the stormwater pipes were assessed using the SEWRAT computer program, which is a component of the evaluation system contained within the Australian Conduit Condition Evaluation Manual (Water Board, 1991). SEWRAT provides a condition rating based on the number and severity of defects affecting a pipe. Defects are assessed using closed circuit television (CCTV) surveys of a pipe. When a defect is encountered, a score is allocated based on the type and severity of the defect. On completion of the survey, SEWRAT then calculates three scores. These being the peak (maximum total score for a single metre length), mean (total score divided by the total length), and average (total score divided by the number of defects) scores.

The pipe is then graded according to threshold values of the peak, mean, and average scores, with the worst grading of the three being used. SEWRAT uses a three state grading system. This is unsuitable for Local Government requirements, which requires a five state system in accordance with Table 1. Coombes (1997) found state 5 to be redundant for stormwater pipes. State 5 represents a pipe that cannot convey water. This is not observed in the field, where even extremely structurally damaged stormwater pipes can still convey stormwater effectively (see Figure 1). Thus, a four state grading system was adopted using the first four structural condition states described in Table 1. The data was classified using this four state system.

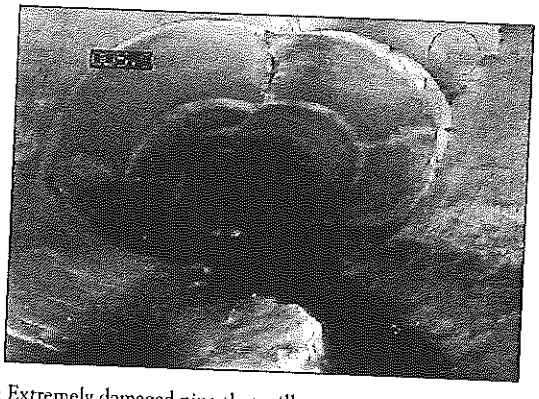


Figure 1: Extremely damaged pipe that still conveys stormwater effectively

Pipe Categories

The data set was classified according to the pipe categories preser within the data set. These pipe categories were then sub-classifie into their constituent values. Table 2 summarises the categorie used within this study.

Analysis / Category	Data Set / Category Value (Number of Samples)
Entire Data Set	Entire Data Set (497)
Split Sample	split1 (249), split2 (248)
Diameter	d<600 (376), d≥(600 (121)
Material	conc (342), VC (135)
Soil Type	all (296), pod (201)
Exposure	A2 (216), B2 (238), C (43)
Serviceability	s1 (191), s2 (88), s3 (101)

Table 2: Categorisation of stormwater pipe data

The entire data set was randomly split into two separate data sets, labelled as split1 and split2, for use within the split sample analyses.

Pipe diameter was separated into two categories values representing small and large pipes. Small pipes (d<600) have diameters of less than 600 mm while large pipes (d≥(600) have diameters of 600 mm or greater. The distinction at 600 mm ensured that a sufficient number of pipes were available to permit a reliable investigation into the effects of pipe size.

The two major pipe construction materials, concrete (conc) and vitreous clay (VC), were used. There were some other materials present within the data set; however, these contained insufficient numbers to justify analysis.

Two major soil types, alluvial (all) and podzolic (pod), were used. The alluvial soil consisted of Fullerton alluvial soil only. The podzolic soil is a collection of three separate soil types, those being Duckhole podzol, grey brown podzolic, and Thornton brown podzol soils. The combination into a single grouping is acceptable because these soils are similar - all have been formed through the weathering of similar parent rock.

The exposure classifications - A2, B2, and C - were derived from the AS3600 (Standards Australia, 1994) exposure classifications, and are summarised in Table 3. The AS3600 exposure classification system is intended for concrete members, and was considered appropriate for use here because over two thirds of the pipes are concrete.

Classification	Description
A1	Pipes more than 1 km from the coastline
B2	Pipes within 1 km from the coastline
C	Pipes within 1 km from the coastline and within tidal zones

Table 3: Modified AS3600 classifications

The serviceability ratings - serviceability conditions 1, 2, and 3 (s1, s2, and s3 respectively) - were obtained directly from SEWRAT surveys of the pipes. The serviceability condition provides a measure of the severity of the defects that affect the hydraulic performance of a pipe. Serviceability conditions 1 and 3 respectively represent the pipes that are the least and most affected by serviceability defects.

Markov Model

The Markov model describes a stochastic process where the probability of jumping into a state at time t+1 only depends upon the state previously occupied at time t. The transition probability matrix P describes the probability of changing states within each time interval. The P matrix used in this study is based on the four state model previously described in Table 1. Hence:

$$\mathbf{P} = \begin{bmatrix} P = 1-(P_{12}+P_{13}+P_{14}) & P_{12} & P_{13} & P_{14} \\ 0 & 1-(P_{23}+P_{24}) & P_{23} & P_{24} \\ 0 & 0 & 1-P_{34} & P_{34} \\ 0 & 0 & 0 & 1 \end{bmatrix} \quad (1)$$

where P_{ij} is the transition probability from state i in year t to state j in year t+1. Note that $P_{ij} = 0$ for $i > j$. This imposes the constraint that pipes cannot improve in condition. Also, $P_{44} = 1$ because state 4 is the worst possible state. State 4 is known as an absorbing state, that is, once entered it cannot be left. It is further noted that P_{ij} are independent of pipe age - representing a homogeneous Markov model.

The probability of being in state j, in year t+1, can be determined through the application of the total probability theorem:

$$p_i^{t+1} = \sum_{i=1}^{j} P_{ij} \times p_i^t \quad (2)$$

where p_i^t is the probability of being in state i in year t.

The Markov model provides a conceptually sound model for the deterioration process. The Herz and Weibull models, as used in sewer deterioration models, were considered inappropriate models for stormwater deterioration. These models assume that a pipe can be in one of two possible states - either a functioning or a failed state (Hoyland and Rausand, 1994, p. 214). However, when a pipe fails, we only know that it has left its current state - we do not know which state it has then entered. In some circumstances it may be reasonable to assume, upon failure, that the pipe progresses to the next worst state; although, this does not seem appropriate for stormwater pipes because the structural condition of a stormwater pipe does not necessarily deteriorate gradually. Gradual deterioration is more likely to occur for the serviceability condition, due to the progressive build up of sediment and debris, and through increased root intrusions. The structural condition is most likely to deteriorate through a damage event, such as an earthquake, an overladen truck, or through mine subsidence. Hence, the Herz and Weibull models are not appropriate - a pipe may deteriorate into the next worst state, or may skip one or more states in accordance with the severity of the damage event. These multi-state transitions are permissible within the Markov model.

Model Calibration and Validation

Micevski et al. (2002) describe in detail the calibration of the Markov model to the data set, and the procedures used to verify that the Markov model is consistent with the deterioration process. Briefly the calibration was undertaken using a Bayesian analysis. The objective was to infer the posterior distribution of the parameters which describes all that is known about the parameters given the data. The Metropolis-Hastings (M-H) algorithm was used to evaluate the posterior distribution.

Hypothesis testing allows one to establish whether the proposed probability model is consistent with a set of observations. Within this analysis, there were two separate hypotheses to be tested. The first hypothesis to be tested was that the observations are distributed according to the (hypothesised) Markov model. This assesses whether the Markov model is appropriate for stormwater pipe deterioration. This testing is performed using the entire data set and through split sample analyses. Note that the split sample analysis is a more rigorous test because it uses data independent of that used in the model calibration.

The second hypothesis to be tested is that pipes having different category values deteriorate according to the same Markov model. This test affords an understanding as to whether the pipe category value has an influence on the deterioration process. It is noted that these are split sample tests because the data, contained within each set of category values analysed, are independent of each other.

The hypothesis testing procedure used was the Chi squared (χ^2) test based on the Pearson X^2 statistic:

$$x^2 = \sum_i \frac{(O_i - E_i)^2}{E_i} \quad (2)$$

where O_i and E_i are respectively the observed and expected number of pipes in group i, where a group refers to the pipes with a particular condition rating at a particular observed age. Micevski et al. (2002) describe the rules for grouping the data to ensure that the X^2 statistic approximates the χ^2 distribution accurately.

Verification of Markov Model Assumption

The verification that the data are distributed according to the Markov model was performed in two ways - using the entire data set and through the split sample analyses (split1/split2 and split2/split1). An explanation of the doublet notation (data 1/data 2) is required. Data 1 refers to the data set to which the parameters have been calibrated (using the M-H algorithm), whereas data 2 is used to test the model hypothesis (using the X^2 test). That is, the transition probabilities are estimated using data 1, and then the model is compared with the observations contained within data 2.

The resultant transition probabilities and the X^2 test results are detailed in Tables 4 and 5 respectively. The split sample tests suggest that the Markov model is consistent with the data (at the 5% significance level). Thus, the Markov model is an appropriate model for stormwater pipe deterioration.

Transition	Analysis		
	Entire Data Set	Split1/Split2	Split2/Split1
1 to 2	0.0101	0.0087	0.0071
1 to 3	0.0016	0.0004	0.0039
1 to 4	0.0002	0.0007	0.0004
2 to 3	0.0021	0.0161	0.0005
2 to 4	0.0542	0.0219	0.0237
3 to 4	0.0009	0.0012	0.0048

Table 4: Expected posterior transition probabilities (model verification)

Analysis	X^2	df*	$X^2_{(0.05,df)}$
Entire Data Set	36.155	27	40.112
Split1/split2	26.155	16	26.295
Split2/split1	27.385	19	30.143
*df = Degrees of freedom			

Table 5: Statistical analysis results (model verification)

It is important to appreciate that considerable parameter uncertainty exists. This uncertainty arises from limited sample data and can be displayed using posterior histograms of the transition probabilities produced by the M-H algorithm - Figure 2 presents histograms obtained for the entire data set analysis. Note that the vertical lines indicate the mean values of each parameter. The mean values of the transition probabilities pass near the peak values of the histograms, except for P_{13}. This is a result of the secondary peak near zero, which slightly skews the mean value towards this peak.

Category Analysis

The various pipe categories were analysed for category value differences, and the results of the X^2 tests are summarised within Table 6. Four of the five pipe categories analysed (diameter, construction material, soil type, and exposure classification) rejected the null hypothesis. This indicates that the Markov models for the category values, contained within each of these pipe categories, are statistically different - implying that the deterioration process is different for each of these category values.

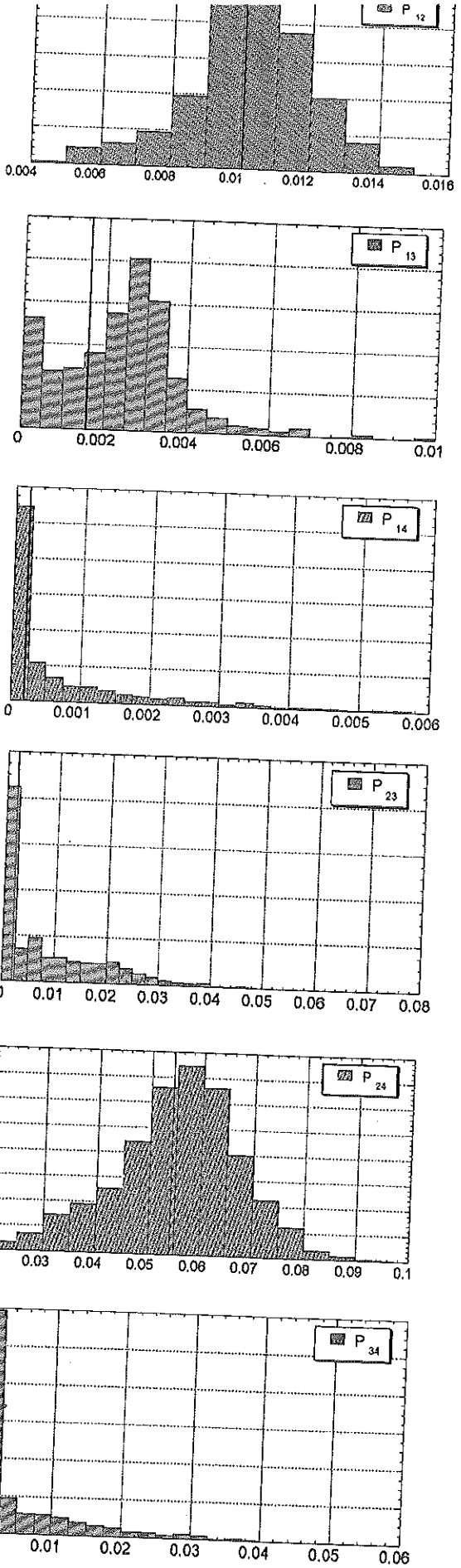


Figure 2: Histograms of transition probabilities (entire data set).

Analysis	X^2	df*	$X^2_{(0.05,df)}$
d<600/d≥600	32.557	8	15.507
d≥600/d<600	64.965	21	32.6701
conc/VC	117.551	4	9.487
VC/conc	370.271	30	43.772
all/pod	30.480	18	28.868
pod/all	44.009	10	18.306
A2/B2	57.640	7	14.067
B2/A2	55.687	18	28.868
s1/s2	7.280	4	9.487
s1/s3	4.378	5	11.070
*df = Degrees of freedom			

Table 6: Statistical analysis results (category analysis)

Pipe diameter was found to affect deterioration. The deterioration of smaller pipes was greater than that of larger pipes. A possible explanation for this is that pipe designers are underestimating the traffic loadings or the cover requirements for these smaller pipes, resulting in increased pipe damage for smaller pipes.

Pipe construction material affects deterioration. The results show that concrete pipes are stronger and more durable than vitreous clay pipes, as one would expect.

Soil type was found to affect deterioration. Pipes in alluvial soils deteriorate more rapidly than those in podzolic soils. This might be a result of the different formational environments of the soils. The podzolic soils are formed through the weathering of rocks, whilst the alluvial soils are deposited from a saline environment. Also, the alluvial soils are much more likely to be acid sulphate soils (Fityus, 2001, pers. comm.). These factors may increase the rate of deterioration due to the increased salt (chloride) content accelerating corrosion within the predominantly concrete pipes, and also through the sulphuric acids, formed by the acid sulphate soils, attacking the pipes.

The exposure classification influences deterioration. It should be noted that no statistical comparisons using the category value C were possible, due to insufficient data being available for use in the X^2 test. Nonetheless, an effect was still obvious with B2 pipes deteriorating at a faster rate than A2 pipes. This effect might result from B2 pipes being located near the coastline (see Table 3). This could increase the rate of corrosion, and thus deterioration, of the predominantly concrete pipes due to the increased salt (chloride) content.

The serviceability condition did not affect deterioration. The serviceability condition is based on defects that affect the hydraulic, not structural, performance of a pipe. Thus, it is not unexpected that no influence on structural deterioration was detected. The reason for the model only being calibrated to the data in serviceability condition 1 is that this category value contained almost twice the amount of data compared to the other two category values (serviceability conditions 2 and 3). Also, these two category values had the vast majority of the data clustered into the age groups of 51 and 56 years.

This difference in the deterioration rates, for the various category values, is illustrated within Figure 3, which gives the expected proportion of pipes in condition 4 as a function of age. The graph shows that the deterioration rates for the category values vary significantly, confirming the results obtained in Table 6.

Comparison to Accounting Standards

The depreciation curves derived to meet AAS27 requirements assuming useful lives of 70 and 100 years for stormwater pipes are significantly different to the deterioration curve estimated by the Markov model. This is illustrated in Figure 4, which shows that the AAS27 depreciation curves quite significantly overestimate the deterioration of stormwater pipes. This highlights the need to derive infrastructure deterioration models from observed performance, rather than notional performance. Assuming that the average age of stormwater pipes in a Local Government area is 60 years and the replacement value of the pipes is $145 million the impact on the Council's fiscal position is shown in Table 7.

Item	AAS27 (70 years)	AAS27 (100 years)	Markov
Average Structural condition at 60 years	4.5	3.5	2.5
Written down value	$20.8 M	$87 M	$108.8 M
Annual depreciation cost	$2.07 M	$1.45 M	$0.6 M

Table 7: Impact of different depreciation strategies on a Councils' fiscal position

As shown by the written down values in Table 7 the use of straight-line depreciation methods substantially under estimates the structural value of the stormwater pipe infrastructure. This dramatically increases the annual depreciation costs that the council will have to pay.

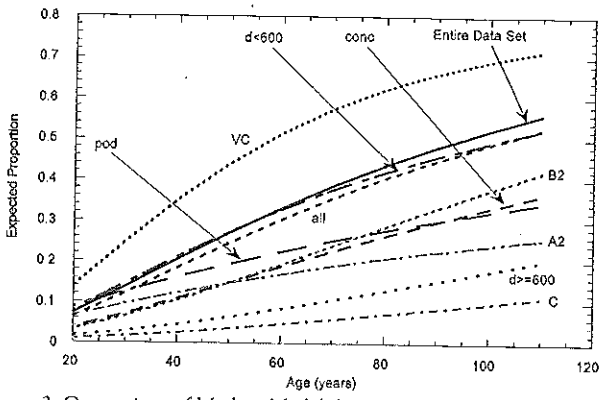


Figure 3: Comparison of Markov Model deterioration curves for structural condition 4.

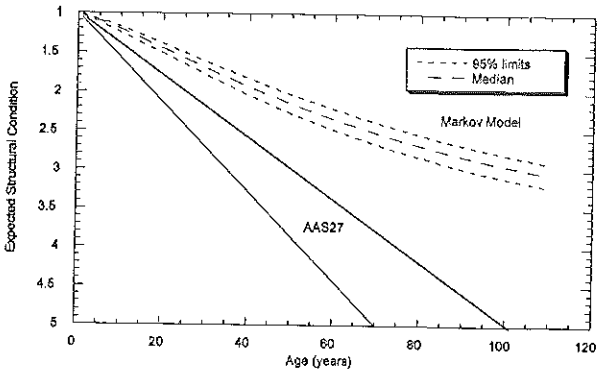


Figure 4: Comparison of AAS27 depreciation and Markov model curves.

Serviceability

Stormwater drainage systems are constructed to provide a service to the community. Stormwater pipes are provided to convey stormwater from streets and adjoining properties without

nuisance. No structurally unserviceable pipes were found during the CCTV surveys although 35% of pipes in the NCC survey were found to be functioning in a badly damaged state (structural condition = 4). No relationship between the SEWRAT structural and serviceability ratings was found.

The serviceability condition is an indicator of the hydraulic performance provided by the pipe and thus should be an important factor in stormwater pipe network management. As the hydraulic performance of a pipe decreases, the number of pipe surcharges becomes more frequent due to the associated blockages and intrusions within the pipe. When these surcharges become too frequent, the pipe needs to be refurbished or replaced. This suggests that a combination of both structural and serviceability conditions should be considered when determining a stormwater pipe network management strategy.

An examination of the serviceability rating process from the Australian Conduit Condition Evaluation Manual (Water Board, 1991) revealed that the weighting of the serviceability rating is dominated by non-structural events such as intrusion into pipes by tree roots (Figure 5) or blockage by silt and debris (Figure 6).

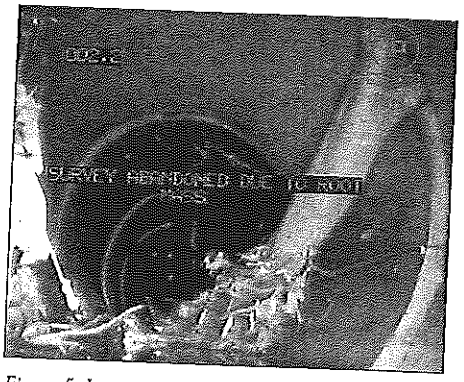


Figure 5: Intrusion into pipe by tree roots

Figure 6: Sedimentation of a stormwater pipe

Processes that partially block a stormwater pipe such as sedimentation, intrusion by tree roots and collection of debris will affect the hydraulic capacity of the pipe resulting in a reduced level of service. Inspection of the CCTV surveys revealed a number of common blockages in pipes including concrete debris, sedimentation, vertical displacement, tree roots and combinations of concrete debris, tree roots and sedimentation.

To assess the hydraulic capacity, and hence serviceability of stormwater pipes it is necessary to relate obstructions observed in the pipe to expected loss of serviceability. Obstructions to flows in a pipe will cause a head loss (h_L). Typically such a head loss is assumed to be proportional to the velocity head or the kinetic energy of the flow

$$(h_L) = K \frac{V^2}{2g} \qquad (4)$$

where V is average velocity in the pipe (V), g is the gravitation constant and K is a dimensionless coefficient. Depending on ho much the pipe is over-designed the increase in head lo associated with an obstruction may increase upstream water leve to cause surcharging from pits and a resultant loss of serviceabilit

Values of K for different types of obstruction can be estimate experimentally. Laboratory experiments were conducted by Da (2000) and Konetschnik (2001) using a 100 mm diameter pipe retrofitted with various types of obstructions, for variou discharges ranging between 0.008 m³/s to 0.017 m³/s. Thes experimental scenarios are shown in Figure 7 and described in Table 8.

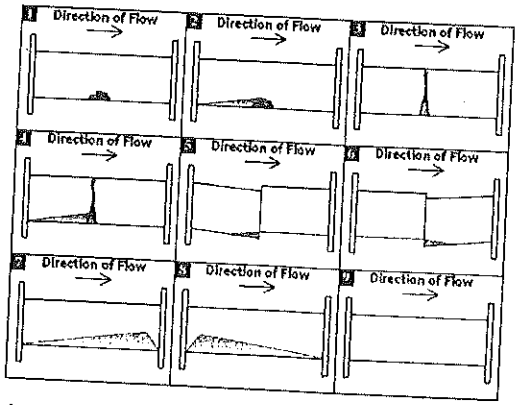


Figure 7: Longitudinal plans of the physical modelling scenarios.

The physical models of the pipes, including obstructions, are shown in Figure 8. Small pieces of concrete were glued to the bottom of the pipe to simulate a small-scale collapse in the pipe, a tree branch was glued in the pipe to simulate a blockage by a tree root, a pipe was split in two to simulate a vertical displacement and a build up of sediment in the pipe was simulated using resin.

Scenario	Obstruction
1	Concrete debris
2	Concrete debris & sediment
3	Tree root
4	Tree root & sediment
5	Vertical displacement
6	Vertical displacement reversed
7	Sediment
8	Sediment reversed
9	Control with no obstruction

Table 8: Description of the pipe obstruction scenarios tested in the laboratory

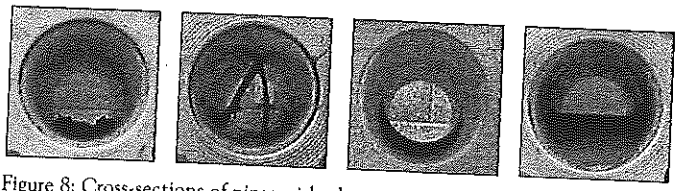


Figure 8: Cross-sections of pipes with obstructions used in the modelling

The experimental values for K are listed in Table 9. The results show that K is affected by both the area obstructed and the nature of the obstruction. For example, scenarios 4, 7 and 8 have similar obstructed areas but quite different K values. The tree root penetrates the whole cross section disturbing the whole flow field whereas the sediment presumably only disturbs the lower part of the flow field.

Scenario	Obstruction	Reduction in pipe area (%)	Experiment K
1	Concrete debris	18.7	0.099
2	Concrete debris & sediment	24.4	0.085
3	Tree root	34.1	0.172
4	Tree root & sediment	48.8	0.408
5	Vertical displacement	17.2	0.08
6	Vertical displacement reversed	16.6	0.079
7	Sediment	43.4	0.094
8	Sediment reversed	43.4	0.094

Table 9: Loss coefficients (K) for pipe obstruction scenarios.

The ability to estimate the value of K for different types of obstruction in pipes is important. The serviceability defects recorded during SEWRAT surveys in accordance with the Australian Conduit Condition Evaluation Manual identify the obstruction type, severity and location in pipes. If a reliable relationship between the serviceability rating from SEWRAT surveys and expected losses in pipes can be developed the opportunity exists to rationally assess the level of service provided by a pipe.

A complicating issue in assessing the level of service is network interaction. In flat networks obstructions can cause extensive upstream surcharging for the design storm. In contrast, in steep networks, surcharging may be very limited or even non-existent because pipes may be considerably overdesigned from a conveyance perspective. An exploratory analysis by Konetschnik (2001) of stormwater drainage systems in the Newcastle area using the WUFS rainfall/runoff model (Kuczera et al., 2000) demonstrated that obstructions in pipes operating close to their design capacity can increase the incidence of surcharges from nearby upstream drainage pits. Furthermore it was found that as the number of obstructions in pipes increased the adequacy of the network to cope with short duration high intensity storms decreased significantly.

The effect of obstructions is not spatially uniform. The asset manager needs to target those parts of the system where pipes are operating close to or at their design capacity during the design storm. understanding the hydraulics of the pipe network can produce considerable savings in asset monitoring because the problem locations can be apriori identified.

Conclusion

This study has presented a homogeneous Markov model for the structural deterioration of stormwater pipe infrastructure. The Markov model was shown, both conceptually and through statistical analyses, to be an appropriate model for stormwater pipe deterioration. Various pipe characteristics were found to influence the deterioration process. These were pipe diameter, construction material, soil type, and exposure classification, whilst the pipe serviceability condition was found to not affect the deterioration. The depreciation requirements of Australian accounting standards and the Department of Local Government were shown to significantly overestimate the actual deterioration of stormwater pipes.

Significantly, the level of service provided by a pipe is not necessarily related to the structural condition of the pipe. Stormwater drainage systems are constructed to provide a service to the community. Although structural condition ratings used in local government asset accounting provide a value for a stormwater asset there is no apparent relationship between the structural condition of the asset and the service it provides. Stormwater pipes have a value other than their structural value because they provide a service to the community. The question that needs to be asked is what is the value of the service?

We suggest that the level of service provided by the pipe depends on its position in the network and on factors diminishing its original hydraulic capacity such as intrusions by tree roots, sedimentation and collection of debris. The defects identified in serviceability ratings from SEWRAT surveys can be assigned loss coefficients. Use of such coefficients in a hydraulic model of the pipe network will enable an assessment of surcharge frequency and hence the serviceability of the pipe. It is suggested that a combination of both structural and serviceability conditions should be considered when determining a stormwater pipe network management strategy.

Acknowledgements

We are grateful for the use of the Newcastle City Council stormwater database.

References

Australian Accounting Research Foundation (AARF). (1996). AAS27: Financial Reporting by Local Governments. Caulfield, Vic.

Australian Accounting Research Foundation (AARF). (1997). AAS4: Depreciation. Caulfield, Vic.

Cesare, M. A., Santamarina, C., Turkstra, C., and Vanmarcke, E. H. (1992). "Modeling Bridge Deterioration with Markov Chains". J. Transp. Eng, 118, 6, 820-833.

Coombes, P. (1997). "Towards Sustainable Asset Management of Stormwater Drainage Systems". Unpublished B.E. thesis. University of Newcastle.

Doa V., (2000). Hydraulic condition of aging stormwater pipes. Unpublished B.E. thesis. University of Newcastle.

Department of Local Government and Cooperatives (DLGC). (1995). Local Government Asset Accounting Manual. Sydney.

Herz, R. K. (1996). "Ageing Processes and Rehabilitation Needs of Drinking Water Distribution Networks". Aqua, 45, 5, 221-231.

Høyland, A., and Rausand, M. (1994). System Reliability Theory: Models and Statistical Methods. Wiley, New York.

Jacobs, T. L., Medina, M. A., Jr., Kaufman, N., and Wood, D. M. (1993). "Optimal Long-Term Scheduling of Stormwater Drainage Rehabilitation". Water Resour. Bull., 29, 1, 47-54.

Konetschnik B. (2001). The hydraulic assessment of obstructed stormwater pipes. Unpublished B.E. thesis. University of Newcastle.

Kuczera, G., Williams, B.J., Binning, P. and Lambert, M.L., J. (2000). An education web site for free water engineering software, 3rd Int'l Hydrology and Water Resources Sym., Inst. Eng. Aust., Perth.

Institution of Engineers, Australia, (1987). Australian Rainfall and Runoff: A Guide to Flood Estimation, Vol. 1, D.H. Pilgrim (ed), Canberra.

Mailhot, A., Duchesne, S., Musso, E., and Villeneuve, J.-P. (2000). "ModÈlisation de l'...volution de l'...tat Structural des RÈseaux d'...gout: Application ‡ une MunicipalitÈ du QuÈbec". Can. J. Civ. Eng., 27, 1, 65-72 (in French).

Micevski T., Kuczera G., and Coombes P.J. (2002). Markov model for stormwater pipe deterioration. Journal of Infrastructure Systems. ASCE. 8,2. 1-8.

Røstum, J., Bøur, R., SÊgrov, S., H'rold, S., and Schilling, W. (1999). "Predictive Service-Life Models for Urban Water Infrastructure Management". Proc., 8th International Conference on Urban Storm Drainage, Vol. 2. Institution of Engineers, Australia, 594-601.

Standards Australia. (1994). AS3600:Concrete Structures. Homebush, NSW.

Water Board. (1991). Australian Conduit Condition Evaluation Manual. Sydney.

Wirahadikusumah, R., Abraham, D., and Iseley, T. (2001). "Challenging Issues in Modeling Deterioration of Combined Sewers". J. Infrastruct. Sys., 7, 2, 77-84.

[TM1] This discussion and the discussion for serviceability should go together. So I have moved this discussion further down in the document — so both discussions appear together.

Document Control	

Document ID: 59_07_070909_nams.plus_amp template v11

Rev No	Date	Revision Details	Author	Reviewer	Approver
3	29/01/2010	Reformatted into IPWEA NAMS	BT	EJ	CMc
3.01	31/05/2010	Content Revised	EJ	CMc	CJ

TABLE OF CONTENTS

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, and 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 discretional expenditure, which increases future operating, and maintenance costs, because it increases council'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 discretional 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 council'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 Expenditure 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 is 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 Council, 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 Council 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 Council'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 council. 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 **

1. EXECUTIVE SUMMARY

What Council Provides

Council provides the community with pleasant, safe and fit for purpose recreation facilities. This plan aims to promote consistency in maintenance and renewal of these assets.

Assets covered by this Asset Management Plan include:

- Fixed assets located within areas of passive recreation use. (Parks)
- Fixed assets located within areas of active recreation use. (Sportsgrounds)
- Fixed Assets located within areas of paved sports surfaces. (Tennis, netball & basketball etc)
- Internal park roads and Sportsground car parks.
- Open space areas dedicated to passive recreation, i.e. parks, reserves and bushland.
- Open space areas dedicated to active recreation, i.e. sports grounds.

What does it Cost?

There are two key indicators of cost to provide the recreation facility service.

- 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 Council's long term financial plan.

The total maintenance and capital renewal expenditure required to provide the recreation facility service the in the next 15 years is estimated at between $2.9 million and $3.4 million per annum.

Plans for the Future

Council plans to operate and maintain the recreation facility assets network to achieve the following strategic objectives.

1. Ensure the recreation assets are maintained at a safe and functional standard as set out in this asset management plan.
2. Ensure the community enjoy pleasant, safe and fit for purpose recreation facilities.

Measuring our Performance

Quality
Recreation assets will be maintained in a reasonably usable condition. 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 an appropriate recreation facility asset network is maintained in partnership with other levels of government and stakeholders.

Recreation asset attributes will be maintained at a safe level and associated signage and equipment be provided as needed to ensure public safety.

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

The Next Steps

The actions resulting from this asset management plan are:

- Continue formal inspections
- Continue to prioritise maintenance and capital works in accordance with the risk management plan

2. INTRODUCTION

2.1 Background

This asset management plan is to demonstrate responsive management of assets (and services provided from assets), compliance with regulatory requirements, and to communicate the funding required to provide the required levels of service.

The asset management plan is to be read with the following associated planning documents:

Maitland 2021 Community Strategic Plan 2011

Maitland Delivery Program 2011

Asset Management Policy 2011

Asset Management Strategy 2011

This plan concerns the management of existing and future recreation assets, ie, recreation land and the fixed assets placed on recreation land. The plan aims to promote consistency in the maintenance and renewal of these assets in order to provide the community with pleasant, safe and fit for purpose recreational facilities. This plan does not consider the maintenance of, or the provision of recreation buildings.

This asset management plan covers the following infrastructure assets:

(Note: Walk Water Works is not included in this asset management plan as it is additional to Council's service delivery. Walka is a Crown owned asset).

2.1.1 Recreation & Open Space Land

Asset category	Dimension	Replacement Value ($M)
Open space areas dedicated to passive recreation, i.e. parks, reserves and bushland.	374 Hectares	Yet to be valued
Open space areas dedicated to active recreation, i.e. sports grounds.	76 Hectares	Yet to be valued

2.1.2 Recreation & Open Space Fixed Assets

Asset category	Dimension	Replacement Value ($M)
Fixed assets located within areas of passive recreation use. (Parks)	70 Playgrounds	**$1,862,000**
	5 Skateparks	**$401,000**
	20 Public barbeques	**$130,000**
	Numerous Items of park furniture	**$100,000***
	Signage	**$250,000***
	Park fencing	**$$500,000***
	Park Lighting	**$200,000***
	Sub Total	**$3,343,000** **(* estimate)**
Fixed assets located within areas of active recreation use. (Sportsgrounds)	1 Baseball facilitates	**$200,000**
	Sportsground floodlighting	**$2,191,000**
	Sportsground fencing	**$1,267,000**
	Cricket wickets & practice nets	**$368,500**
	5 Irrigation systems	**$100,000 (estimate)**
	Other sportsground assets	**$980,000**
	Sub Total	**$5,020,000**
Fixed Assets located within areas of paved sports surfaces. (Tennis, netball & basketball ect)	34 Netball courts	**$1,363,000**
	43 Tennis courts	**$2,301,000**
	1 Hockey facility	**$1,2000,000**
	Sub Total	**$4,864,000**
Internal park roads and Sportsground car parks.	32,000 m^2 park roads (approx. 5.3 k)	**$2,815,000**
	38,000 m^2 Car parking	**$3,401,000**
	Sub Total	**$6,216,000**
TOTAL		**$19,448,000**

Key stakeholders in the preparation and implementation of this asset management plan are:

Community	User safety, Work requests & Satisfaction
Assets & Infrastructure Planning	Planning / Design & Control
City Works & Services	Provision of Services
Developers	Compliance and Contribution

2.2 Goals and Objectives of Asset Management

The Council exists to provide services to its community. Some of these services are provided by infrastructure assets. Council has acquired infrastructure assets by 'purchase', by contract, construction by council staff and by donation of assets constructed by developers and others to meet increased levels of service.

Council'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 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,
- Sustainable use of physical resources,
- Continuous improvement in asset management practices.[1]

2.3 Plan Framework

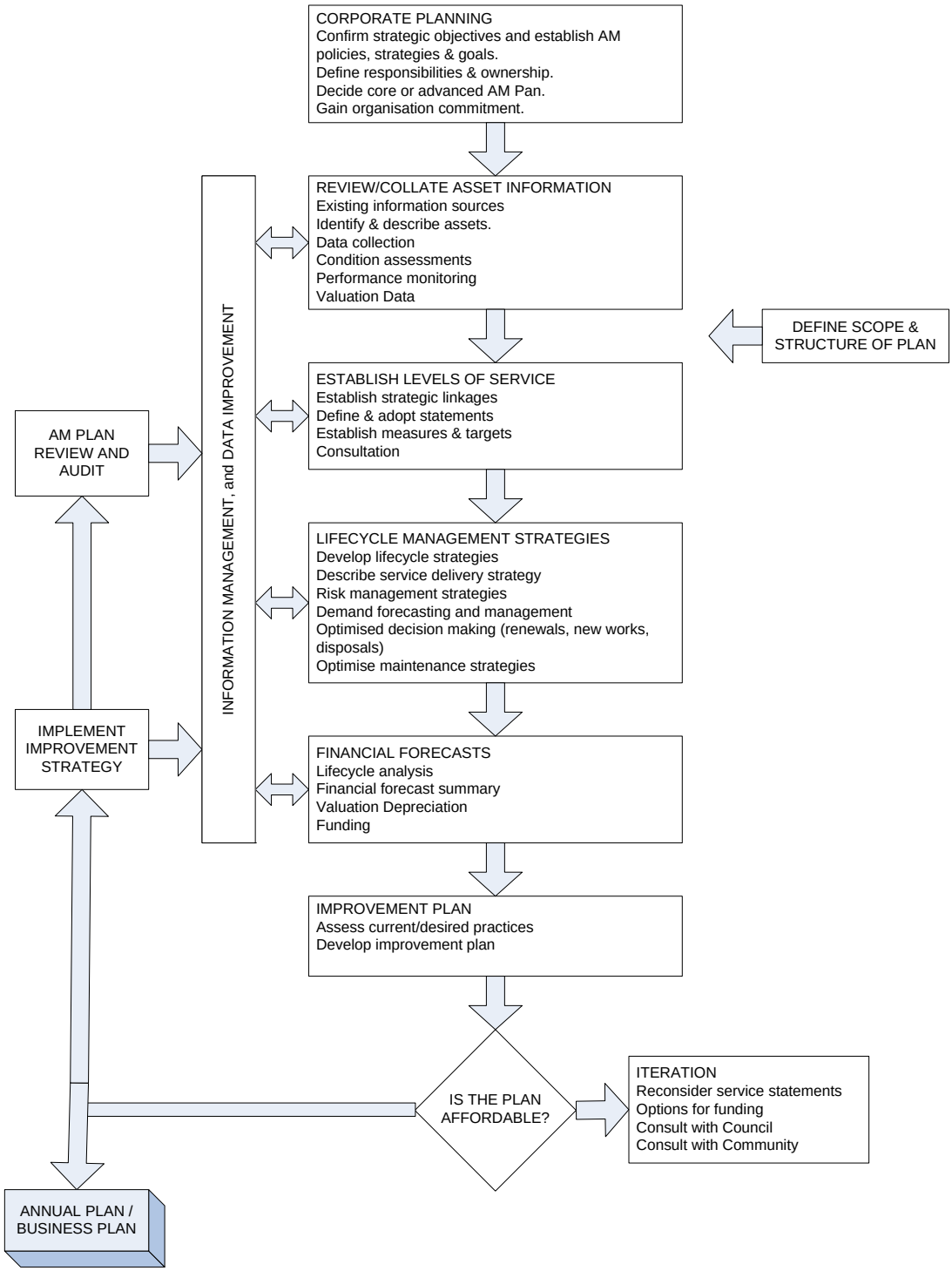
Key elements of the plan are

- Levels of service – specifies the services and levels of service to be provided by council.
- Future demand – how this will impact on future service delivery and how this is to be met.
- Life cycle management – how Council 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 Council's objectives.
- Asset management improvement plan

[1] IIMM 2006 Sec 1.1.3, p 1.3

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

Council has not carried out any research on customer expectations for a number of years. This will be investigated for future updates of the asset management plan.

3.2 Legislative Requirements

Council has to meet many legislative requirements including Australian and State legislation and State regulations. These include:

Table 3.2. Legislative Requirements

Legislation	Requirement
Local Government Act	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.
Environmental Planning and assessment Act 1979	
Australian Standard AS/NZ 4422-1996	Sets out the role and responsibilities of playground owners, including maintenance and inspection requirements.

3.3 Current Levels of Service

Council has defined service levels in two terms.

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.

Supporting the community service levels are operational or technical measures of performance developed to ensure that the minimum community levels of service are met. These technical measures relate to service criteria such as:

Service Criteria	Technical measures
Quality	Condition Assessments
Defects	Number of outstanding works
Safety	Number of injury accidents

3.4 Desired Levels of Service

For the purpose of this asset management plan current levels of service have been grouped into two sections, service levels relating to the management of Recreation and Open Space land and the service levels for the fixed assets placed within that land.

3.4.1 Recreation Open Space - Levels of Service

Land dedicated to recreation use has been categorised according to the lands function. Each category of land has been allocated a desired level of service

Land Category	Code	Desired Service Level
Primary Sportsgrounds	S1	Cricket fields should be mown weekly during the summer season. Soccer venues should be mown fortnightly and rugby league fields 'as required' during the winter season. The surrounding fences and amenities areas should be mown fortnightly.
Secondary Sportsgrounds	S2	Training fields should be mown as often as practical but not at a frequency that would impact on the schedule of mowing competition fields.
Primary Parks	P1	These parks should be maintained in such a way as that they are presented to the community in pristine condition at all times. Typically staff should; • Be active in, or inspect these parks each working day. • Lawns should be mown weekly and litter collected daily. • The park should exhibit at least two annual flower displays each year. • Shrubs, trees, roses, and perennials should be maintained in such a way as to reflect the high status of these parks. • The use of non selective herbicide should be avoided.
Secondary Parks	P2	These parks should meet the community's expectation of a well maintained park. Typically staff should; • Inspect and remove litter and fallen tree branches weekly. • Mow grassed areas fortnightly. • Grass along fence lines, playgrounds and garden edges, trees and signs should be trimmed at the time of each mowing service. • Broad area mowing should be done on the same day as any hand/ride-on mowing is done. There should be minimal use of non selective herbicide.
Primary Open Space	P3	These areas of open space should not become unsightly. Typically they should be; • Mown at three weekly intervals. • Litter and debris should be removed at each scheduled mowing. • Fence lines, signs, trees, drainage pits and headwalls, etc. should be trimmed, on average, every second scheduled mowing. (i.e. six weekly) Broad area mowing should where possible coincide with any hand maintenance.
Secondary Open Space	P4	These areas of open space, although of a low priority should not left to become unsightly. Typically they should be; • Mown at four weekly intervals. • Litter and debris should be removed bi-monthly. Fence lines, signs, trees, drainage pits and headwalls, should be trimmed or sprayed with non selective herbicide only if they are the subject of a customer service request.
Gardens	G	Service levels are yet to be determined
Bushland	B1	With the exception of maintaining asset protection zones as specified, these area are to be disturbed at little as possible.

In addition land not specifically deemed recreation land, containing community facilities, vehicle or pedestrian infrastructure and drainage.

Community Facilities	C1	As these buildings have high visitation the quality of grounds maintenance should reflect Council's image to the community. Typically staff should; • Inspect and remove litter and fallen tree branches weekly. • Mow grassed areas fortnightly. • Grass along fence lines, playgrounds and garden edges, trees and signs should be trimmed at the time of each mowing service. • Paths and related hard surfaces to be free of grass clippings and debris.
Drainage Reserves	D1	The area of land adjacent to overland flood-paths should be; • Slashed bi-monthly, where access is possible. • The edge of footpaths within these reserves should be mown monthly • Individual drainage systems will be subject to site specific plans of management and should be maintained in accordance with these plans.
Drains	D2	These areas generally cannot be maintained utilising conventional mowing equipment. Works within this category will be The drainage that is identified within this category would be in direct response to works orders.

Identifying levels of service to this detail allows Council to manage the community and legislative expectations in a cost-effective manner. Prioritisation of works across the city ensures that high priority works with any amount of risk are undertaken prior to any low priority works.

3.4.2 Mapping Service Levels

All recreation land and open space within the LGA has been mapped and a colour coded system identifies the category of each parcel of land to be maintained.

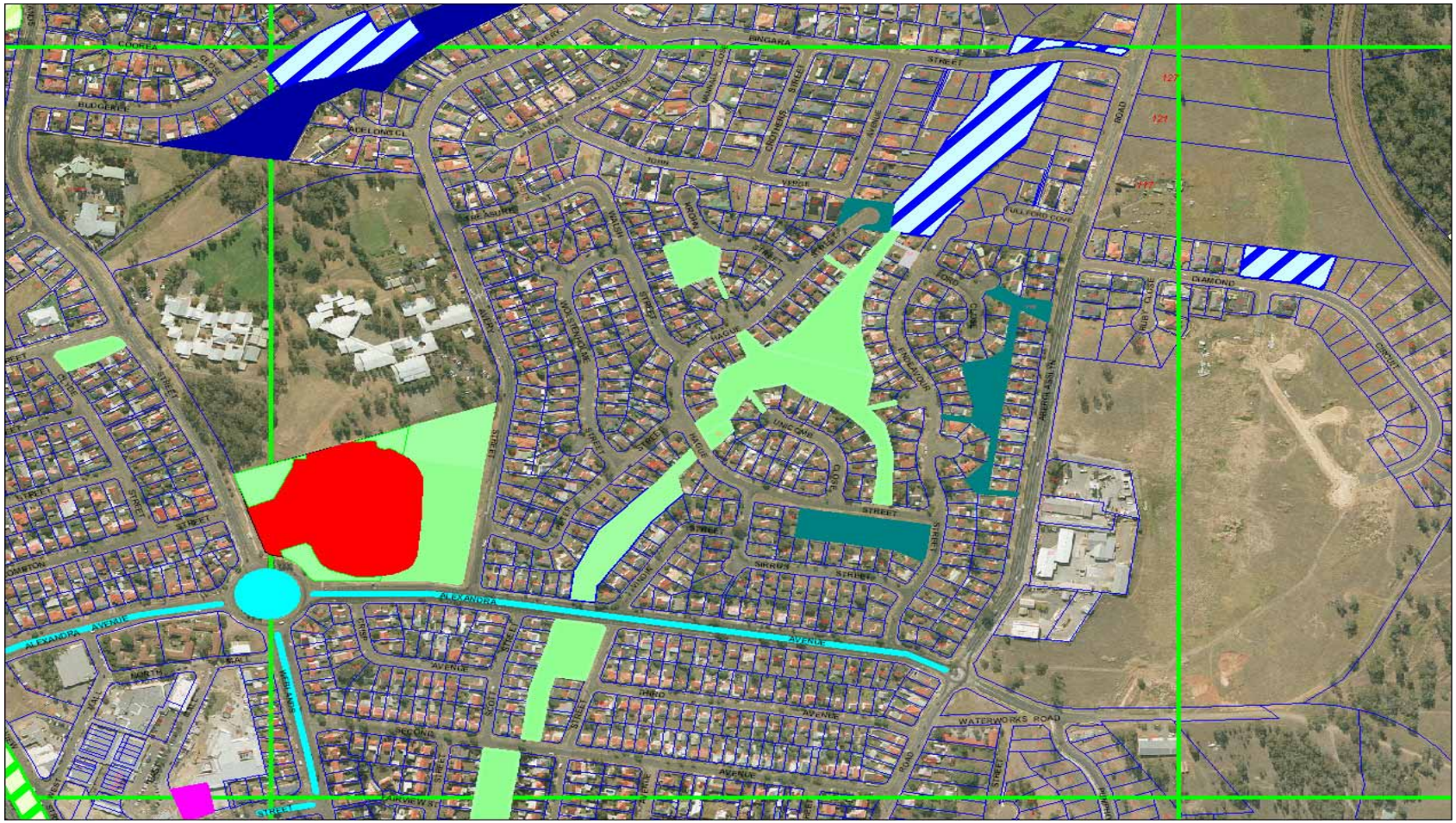
Examples of colour coding;

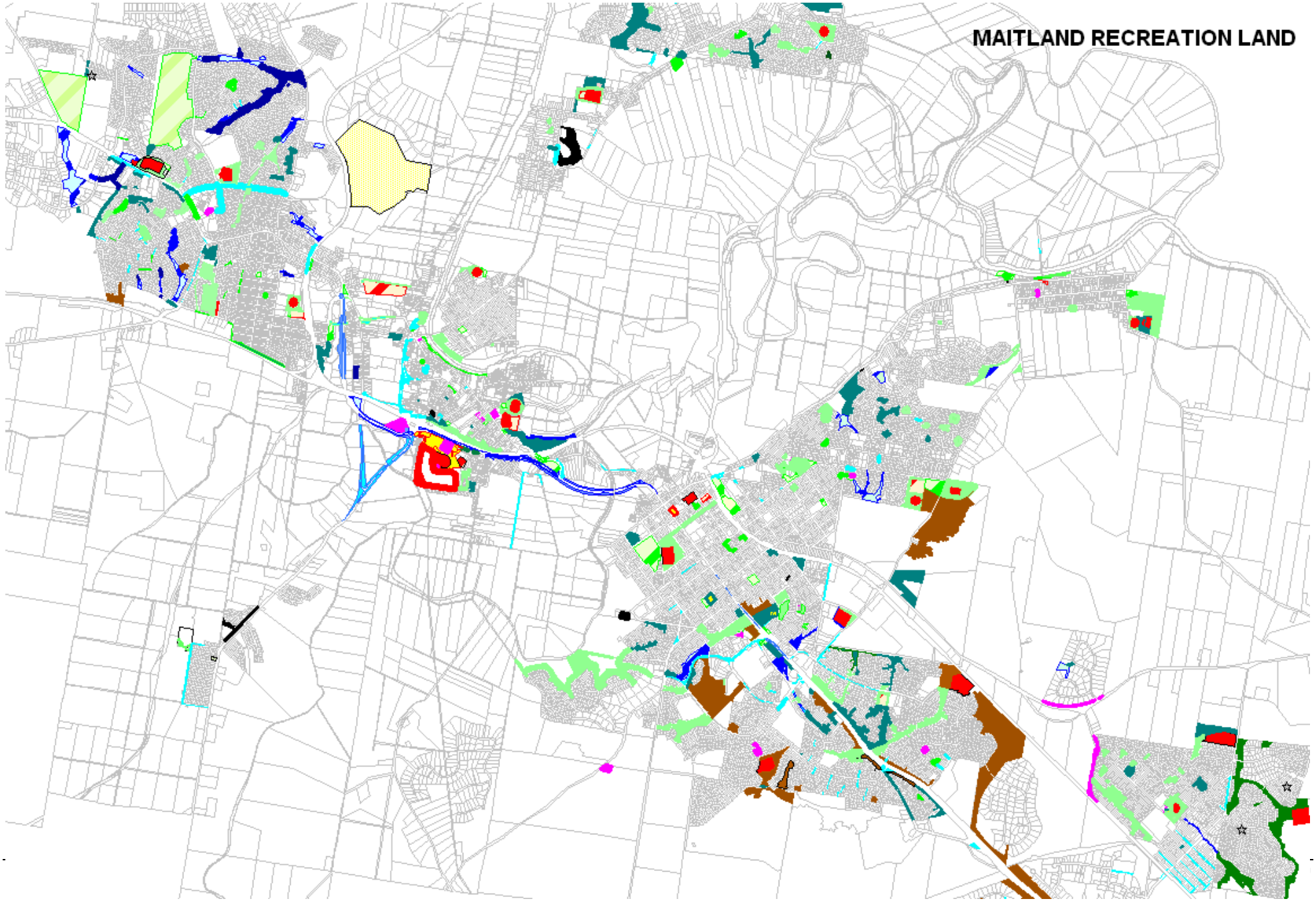
S1 – Sportsground 

P3 – Primary Open Space

D1- Drainage Reserve 

Example of mapped service levels:




MAITLAND RECREATION LAND

3.4.3 Recreation Fixed Assets - Levels of Service

Service levels are yet to be established for all fixed recreation assets. (see table 2.1) Further data collection and condition assessments of some asset classes are required.

Open Space Infrastructure	
Asset Sub-Category	**Levels of Service**
Playgrounds	Playgrounds are inspected twice annually re Australian Standards AS/NZ 2244 1996
Skateparks	To be established
Barbeques	Barbeques are cleaned fortnightly in accordance with the contract schedule
Park Furniture signage	To be established
Park Fencing	To be established
Park Lighting	To be established
Netball Courts	asphaltic courts inspected weekly during playing season by netball club grass courts response to csr's
Tennis Courts	Inspected by user organisations under terms of lease
Hockey Facility	Inspected by lessee
Baseball Facilities	Inspected by user clubs
Floodlighting	Safety audit of poles undertaken 5 yearly Response to csr's from users
Sportsgrounds Fencing	Audit 5 yearly Response to csr's See
Cricket Wickets & Practice Nets	Wickets inspected weekly during playing season by uses
Irrigation Systems	Yet to be itemised
Internal park roads and car parks	To be established

4. FUTURE DEMAND

4.1 Demand Forecast

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

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

Table 4.1. Demand Factors, Projections and Impact on Services

Demand factor	Present position	Projection
Population	2001 Census – 53,803	2026 – 96,000
Demographics	Commercial – 71.76%	
	Industrial – 26.47%	
	Rural – 1.77%	

4.2 Changes in Technology

Technology changes are forecast to affect the delivery of services covered by this plan in the following areas.

Table 4.2. Changes in Technology and Forecast effect on Service Delivery

Technology Change	Effect on Service Delivery
Improvements to plant	Greater efficiencies in grounds maintenance service delivery
Improvements to agricultural chemicals	Better quality outcomes in the delivery of grounds maintenance service

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. Demand management practices include non-asset solutions, insuring against risks and managing failures.

5. LIFECYCLE MANAGEMENT PLAN

The lifecycle management plan details how Council 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

The assets covered by this asset management plan are shown below.

Asset Sub-Category	Inventory Details
Recreation Land (Parks & Open Space)	see table 5.1.1.1
Recreation Land (Sports Grounds)	see table 5.1.1.2
Playgrounds	see table 5.1.1.3
Barbeques	see table 5.1.1.4
Skateparks	see table 5.1.1.5
Baseball Facilities	see table 5.1.1.6
Sportsground Floodlighting	see table 5.1.1.6
Sportsground Fencing	25,646 metres - see table 5.1.1.6
Cricket Wickets & Practice Nets	see table 5.1.1.6
Internal park roads and car parks	see table 5.1.1.7
Netball Courts	34, see table 5.1.1.9
Tennis Courts	43, see table 5.1.1.10
Hockey Facility	inventory yet to be undertaken
Park Lighting	Multiple, inventory yet to be undertaken
Park Furniture & signage	Multiple, inventory yet to be undertaken
Park Fencing	Multiple, inventory yet to be undertaken
Irrigation Systems	Multiple, inventory yet to be undertaken

5.1.1.1 Recreation Land (Parks & Open Space)

Suburb	Address	Location	Category	Area
ABERGLASSLYN	Honey Oak Drive	Honeyoak Drive	P2	3820
ABERGLASSLYN	Peppertree Circuit	Honeyoak Drive	P2	2361
ASHTONFIELD	1 Molucca Close	Molucca Close	P4	875
ASHTONFIELD	37 Celebes Street		P4	322
ASHTONFIELD	Butterfield Street	Ashton Park	P2	2184
ASHTONFIELD	Community	East	P4	1354
ASHTONFIELD	Hideaway Place		P4	18151
ASHTONFIELD	Luzon Close		P3	1759
ASHTONFIELD	Malang Close	Duzon Close	P4	3639
ASHTONFIELD	Malay Close		P4	2500
ASHTONFIELD	Norfolk Street	Ashtonfield Reserve	P3	32854
ASHTONFIELD	Peden Close	East	P4	13727
ASHTONFIELD	Pitcairn Street	Malang Close	P4	2521
ASHTONFIELD	Pitcairn Street	Malang Close	P4	395
ASHTONFIELD	Pitcairn Street	Timor Close	P4	2101
BOLWARRA	Denison Road		P4	1057
BOLWARRA	Kylie Place	Kylie Place	P3	659
BOLWARRA	Paterson Road	Bolwarra Lookout	P2	8094
BOLWARRA	Paterson Road	Hands Lagoon	P4	60963
BOLWARRA	Thurlow Close	Thurlow Close	P3	794
BOLWARRA	Victoria Road	Bolwarra Oval Exterior	P3	24212
BOLWARRA	Victoria Road	Bolwarra Sports Complex Outer Area	P4	19945
BOLWARRA HEIGHTS	Alyce & Robinia Close		P3	17864
BOLWARRA HEIGHTS	Amber Grove		P3	1694
BOLWARRA HEIGHTS	April Circuit	April Circuit	P4	2334
BOLWARRA HEIGHTS	April Circuit	April Circuit	P4	28468
BOLWARRA HEIGHTS	Benshulla Drive	Benshulla Drive	P2	5640
BOLWARRA HEIGHTS	Bolwarra Heights	Tocal Road & Lang Drive Road Reserve	P4	14838
BOLWARRA HEIGHTS	Bolwarra Park Drive	Bolwarra Park Drive	P4	40669
BOLWARRA HEIGHTS	Centenary Close	Dalveen Road	P3	2933
BOLWARRA HEIGHTS	Community	Central	P3	1384
BOLWARRA HEIGHTS	Corina Avenue	Corina Avenue	P3	4468
BOLWARRA HEIGHTS	Forest Way	Central	P4	64892
BOLWARRA HEIGHTS	Hunterglen Drive		P4	606
BOLWARRA HEIGHTS	Paterson Road	Cnr. Bolwarra Rd & Paterson Rd	P4	2744
EAST MAITLAND	3 Fern Place	Fern Place	P3	892
EAST MAITLAND	4 Oxley Close	Springbok Crescent	P3	13079
EAST MAITLAND	Alliance Street	Alliance Street	P3	12870
EAST MAITLAND	Alliance Street	Alliance Street	P4	9188
EAST MAITLAND	Blaxland Street	Rotary Park	P2	2436
EAST MAITLAND	Brisbane Street	Heritage Park	P2	63791
EAST MAITLAND	Brunswick Street	Cooney Park	P2	8479
EAST MAITLAND	Brunswick Street	Brunswick Street	P3	3752
EAST MAITLAND	Chifley Street	East	P3	1696
EAST MAITLAND	Chisholm	No Name At Takeon	P4	7834
EAST MAITLAND	Curtin Street	Ken Browne Memorial Park	P3	3791
EAST MAITLAND	Day Street		P4	653
EAST MAITLAND	Garnet Road	East Maitland Library Playground	P2	1976
EAST MAITLAND	Garnet Road	Greenhills Gardens	P3	53370
EAST MAITLAND	George Street	Hodge Street	P3	1716
EAST MAITLAND	High Street	Les Darcy Grove	P3	8524
EAST MAITLAND	John Street	Anzac Park	P2	23211
EAST MAITLAND	John Street	East Maitland Railway & Reserve	P2	13447

Suburb	Address	Location	Category	Area
EAST MAITLAND	Lawes Street	Lawes Street	P3	14137
EAST MAITLAND	Lawes Street	Page Street Reserve	P4	10554
EAST MAITLAND	Lawes Street	Page Street Reserve	P4	19801
EAST MAITLAND	Maize Street	Plantation Reserve	P3	34760
EAST MAITLAND	Mawson Ave	Eckford Reserve	P3	15418
EAST MAITLAND	Melbourne Street	Melbourne Street Reserve	P4	15093
EAST MAITLAND	Metford Road	Beryl Humble Sports Complex	P3	43385
EAST MAITLAND	Molly Morgan Drive	Enterprise Park	P2	1893
EAST MAITLAND	Morpeth Road	Vacant Land	P4	4092
EAST MAITLAND	Nerang Street	East Maitland Pool Exterior	P2	7470
EAST MAITLAND	Nerang Street	Milton Marsden Reserve	P2	4109
EAST MAITLAND	New England Highway		P4	3838
EAST MAITLAND	New England Highway		P4	7221
EAST MAITLAND	Newcastle Road	King Edward Park	P1	5234
EAST MAITLAND	Phillip Street	East	P4	5596
EAST MAITLAND	Pierce Street	Centennial Park	P2	3064
EAST MAITLAND	Raymond Terrace Road	Golf Practice Field	P4	70012
EAST MAITLAND	Sinclair Street	Sinclair Street	P2	1334
EAST MAITLAND	The Boulevard	Brooklyn Park	P3	1691
EAST MAITLAND	Thompson Street	Goodhugh Street	P2	2429
EAST MAITLAND	Turnbull Drive	Rathluba Lagoon	P3	126820
EAST MAITLAND	Ultimo Street	Ultimo Street Reserve	P4	9490
EAST MAITLAND	Victoria Street	Victoria Street	P2	5880
EAST MAITLAND	Victoria Street	Vacant Land	P4	4704
EAST MAITLAND	Vista Parade	Vista Parade Reserve	P4	10411
EAST MAITLAND	William Street	East Maitland War Memorial	P1	282
EAST MAITLAND	William Street	Cook Square Park	P3	29009
EAST MAITLAND	Worcester Drive	Worcester Drive Reserve	P3	56098
GILLIESTON HEIGHTS	Cartwright Street	Gillieston Heights Oval	P3	1978
GILLIESTON HEIGHTS	Cessnock Road	Beckett Street	P2	2337
HORSESHOE BEND	Raglan Street	Exterior No.1 Sportsground	P4	6069
LARGS	Community	Central	P4	2681
LARGS	Dunmore Road	Central	P3	36244
LARGS	Largs Avenue	Largs Oval Exterior	P3	26506
LOCHINVAR	Freeman Drive	Freeman Drive	P3	4138
LOCHINVAR	Hunter Close	Hunter Close	P3	6352
LOCHINVAR	New England Highway	Porter Place	P2	589
LOCHINVAR	New England Highway	Porter Place	P2	845
LOCHINVAR	New England Highway	Porter Place Playground	P2	2656
LOCHINVAR	Robert Road	Lochinvar Sports Field Exterior	P3	44893
LORN	42 Lorn Street	Bowden Street	P3	475
LORN	Melrose Street	Lorn Park	P2	2714
LORN	Nillo Street	Lorn Oval Exterior	P3	6071
LORN	The Avenue	The Avenue	P2	3745
LORN	The Esplanade	R.H.Taylor Reserve	P3	29374
MAITLAND	101 High Street	Ministers Park	P2	17683
MAITLAND	Athol D'Ombrain Drive	Athel D'Ombrain Drive	P3	29491
MAITLAND	Bolwarra	Not Owned By Council	P4	140
MAITLAND	Bourke Street	Vacant Block	P4	339
MAITLAND	Bourke Street	Vacant Block	P4	356
MAITLAND	Bull Street	n	P4	8500
MAITLAND	Catherine Street	Vacant Block	P4	459
MAITLAND	Catherine Street	Napoleon Lane	P4	8875
MAITLAND	Church Street	Turner Park	P1	672
MAITLAND	Fry Street	n	P4	461

Suburb	Address	Location	Category	Area
MAITLAND	Grant Street	Kleeburg Park	P2	1224
MAITLAND	High Street	XI Park	P2	826
MAITLAND	High Street	n	P4	12346
MAITLAND	High Street	Harold Gregson Park	P4	45959
MAITLAND	James Street	Lions Park	P2	2230
MAITLAND	James Street	Exterior Smythe Field	P3	3394
MAITLAND	James Street	No.1 Sportsground Exterior	P3	13121
MAITLAND	Maitland Park	Maitland Park	P1	78186
MAITLAND	New England Highway	Hospital Carpark	P3	3143
MAITLAND	Pryor Lane	Pryor Lane	P3	3092
MAITLAND	River Bank	River Bank	P2	7424
MAITLAND	Sempill Street	Waterfall Park	P2	516
MAITLAND	Sempill Street	Sempill Street	P3	6986
MAITLAND	Victoria	Victoria Street Playground	P2	1425
METFORD	76 Chelmsford Drive	Metford Reserve	P3	2784
METFORD	Chelmsford Drive	Chelmsford Drive Oval Exterior	P3	9300
METFORD	Dumaresq Parade	Greenvale Park	P3	74710
METFORD	Fieldsend Street	Fieldsend Oval Exterior	P3	7605
METFORD	Melaleuca Drive	Melaleuca Drive	P4	20594
METFORD	Nathan Close		P3	1948
METFORD	Nathan Close	Nathan Close Island & Lane	P4	1482
METFORD	O'Donell Crescent	O'Donell Crescent	P2	2532
METFORD	Stafford & Somers Close	Somers Close	P3	31978
METFORD	Stonehaven Drive	No Name At Takeon	P4	37582
METFORD	Tennyson Street		P4	14772
METFORD	Willow Drive	Willow Drive Playground	P3	3788
MORPETH	63 James Street	James Street	P3	2880
MORPETH	Canterbury Drive	Morpeth Manor Entrance	P3	27267
MORPETH	Edwards Street	Ray Lawler Reserve Playground	P2	8625
MORPETH	Edwards Street	Morpeth Ovals Entrance	P3	2857
MORPETH	Edwards Street	Ray Lawler Reserve	P3	99027
MORPETH	Edwards Street	Morpeth Ovals Surrounds	P4	14080
MORPETH	Queens Wharf	East	P2	289
MORPETH	Robert Street	Morpeth River Bank	P3	6057
MORPETH	Swan Street	Illalaung Park	P1	897
MORPETH	Swan Street	Noel & Daffeney Unicomb Park	P1	737
MORPETH	Swan Street	Illalaung River Bank	P2	1675
MORPETH	Swan Street	Riverbank	P2	813
MORPETH	Tank Street	Queens Wharf Boat Ramp	P2	12171
MORPETH	Tank Street	Trilogy Park	P3	4180
OAKHAMPTON HEIGHTS	Walka Water Works	Maitland	P6	640974
RAWORTH	Baker Drive	Bakers Brick Yard	P4	56611
RAWORTH	Lantry Close	Lantry Close	P3	1248
RAWORTH	Morpeth Road	East	P4	428
RUTHERFORD	110 Aberglasslyn Road	Longbottom Reserve	P4	6111
RUTHERFORD	14 Regiment Street	Marlborough Street	P4	23340
RUTHERFORD	20 Buffier Crescent	Unnamed	P4	1816
RUTHERFORD	5 Hartigan Close	Hartigan Close	P4	1292
RUTHERFORD	9/13 Buffier Crescent	Buffier Crescent	P4	1048
RUTHERFORD	9-13 Buffier Crescent	Buffier Crescent	P4	1134
RUTHERFORD	Alexandra Avenue	Alexandra Avenue	P3	46473
RUTHERFORD	Alexandra Avenue	Max McMahon Oval	P3	20931
RUTHERFORD	Alvira Close	Alvira Close	P4	631

Suburb	Address	Location	Category	Area
RUTHERFORD	Carr Street	Carr Street	P3	1117
RUTHERFORD	Daniel Avenue	Daniel Avenue	P4	3035
RUTHERFORD	Dunkley Street	Paul Perry Park	P3	1621
RUTHERFORD	Dunkley Street	Norm Chapman Oval Playground	P2	3478
RUTHERFORD	Endeavour Street	Hague Street	P4	538
RUTHERFORD	Fahey Street	Fahey Street	P3	822
RUTHERFORD	Fairfax Street	Fairfax Street	P4	3322
RUTHERFORD	Goodlet Street	Carr Street	P3	542
RUTHERFORD	Goodlet Street	Carr Street	P3	455
RUTHERFORD	Goodlet Street	Telarah Park	P3	35915
RUTHERFORD	Hague Street	Hague Street	P4	5336
RUTHERFORD	Harvey Road	Finney Close	P3	4829
RUTHERFORD	Harvey Road	Harvey Road	P4	4554
RUTHERFORD	Hollywood Close	Hollywood Close	P4	1075
RUTHERFORD	John Verge Avenue	Endeavour Street	P4	1065
RUTHERFORD	Kerr Street	Kerr Street	P3	14984
RUTHERFORD	Krohn Street	Krohn Street	P3	2884
RUTHERFORD	Marlborough Street	Regiment Road	P3	3826
RUTHERFORD	New England Highway	Norm Chapman Oval	P3	24151
RUTHERFORD	New England Highway	Alex McDonald Recreation Area	P3	6584
RUTHERFORD	New England Highway	Kennedy Street	P3	5537
RUTHERFORD	New England Highway	Harvey Road	P4	2049
RUTHERFORD	New England Highway	Racecourse & Regiment Roads	P4	4215
RUTHERFORD	New England Highway / Hill Vi	Unnamed	P2	7475
RUTHERFORD	Racecourse Road	Unnamed	P4	1464
RUTHERFORD	Regiment Road	Regiment Road	P2	4867
RUTHERFORD	Regiment Road	Buffier Crescent	P4	348
RUTHERFORD	Regiment Road	Unnamed	P4	3893
RUTHERFORD	Verge Street	Verge Street	P4	826
RUTHERFORD	Wollombi Road	Verge Street	P3	22886
RUTHERFORD	Wollombi Road	Verge Street	P4	17409
SOUTH MAITLAND	Blomfield Street	Maitland Park	P3	16199
SOUTH MAITLAND	Gipps Street	Addition To Maitland Park	P4	5661
SOUTH MAITLAND	New England Highway	Central	P4	1408
TELARAH	Bligh Street	Bligh Street Playground	P2	677
TELARAH	Bligh Street	Coronation Oval Outer	P3	13357
TELARAH	Bungaree Street	Telarah Lagoon	P2	8929
TELARAH	McDonald Street	McDonald Street	P2	2574
TELARAH	Railway Parade		P4	15285
TELARAH	Russell Street	Telarah Park	P2	873
TELARAH	Telarah Street	Telarah Lagoon (East)	P3	23148
TENAMBIT	Barden Close	Barden Close	P3	1620
TENAMBIT	Crawford Avenue		P4	732
TENAMBIT	Frater Avenue	Frater Avenue	P4	8999
TENAMBIT	Houston Avenue	Tenambit Oval	P3	28364
TENAMBIT	Korbel Street	Korbel Street	P3	5921
TENAMBIT	Maize Street	Tom Lantry Reserve	P2	26190
TENAMBIT	Metford Road	Troy Close	P3	4153
TENAMBIT	Robert Street	Robert Street	P4	1583
TENAMBIT	Ronald Street	Burley Close	P3	2442
TENAMBIT	Stace Crescent	Stace Crescent	P3	2928
TENAMBIT	Tyrell Street	Lena Obrien Park	P2	4276
TENAMBIT	Wirrah Street	Wirrah Street	P4	1408
THORNTON	Blakewell Road	Thornton Park	P3	5492
THORNTON	Evelyn Crescent	Parkwood North	P4	10531

Suburb	Address	Location	Category	Area
THORNTON	Evelyn Crescent	Evelyn & John Arthur Res.	P3	49726
THORNTON	Farnsworth Street	Farnsworth Street	P4	749
THORNTON	Forest Drive	Forest Drive	P4	2187
THORNTON	Government Road	Allan & Don Lawrence Sports Centre	P4	33134
THORNTON	Haussmann Drive	Roadside Reserve	P4	1305
THORNTON	Holford Crescent	Holford Crescent	P4	7188
THORNTON	John Arthur Avenue	Allan & Don Lawrence Sports Centre	P3	18024
THORNTON	Somerset Drive	East	P6	945
THORNTON	Somerset Drive	Somerset Park	P6	214096
THORNTON	Taylor Avenue	Thornton Oval	P3	13897
THORNTON	Taylor Avenue	Thornton Oval Exterior	P3	13781
WINDELLA	Malia Close	Cecily Reserve	P3	27083
WOODBERRY	30 Greenhills Avenue	Greenhills Avenue	P3	751
WOODBERRY	Annette Close	Unnamed Landscape Strip	P4	1658
WOODBERRY	Kingstown Road	Kingstown Road	P3	528
WOODBERRY	Lawson Avenue	Woodberry Oval Exterior	P3	35588
WOODBERRY	Michael Hill Avenue	Michael Hill Avenue	P4	285
WOODBERRY	Nilands	Nilands Lane	P4	174208
WOODBERRY	Segenhoe Street	Segenhoe Street	P3	777
WOODBERRY	Sophia Jane Avenue	Sophia Jane Park	P2	2681
WOODBERRY	Swallow Avenue	Swallow Avenue Park	P2	3273
WOODBERRY	Waterbush Crescent	Waterbush Crescent	P3	826

5.1.1.2 Recreation Land (Sports Grounds)

Suburb	Location	Address	Category	Area
THORNTON	Allan & Don Lawrence Sports	Government Road	S1	43352
BOLWARRA	Bolwarra No.1 Oval	Victoria Road	S1	17960
TELARAH	Coronation Oval	Bligh Street	S1	12592
METFORD	Fieldsend Oval	Fieldsend Street	S1	22066
GILLIESTON	Gillieston Heights Oval	Cartwright Street	S1	30082
E. MAITLAND	John Sullivan Field	William Street	S1	28747
E. MAITLAND	King Edward Park Oval	13 Banks Street	S1	12213
LARGS	Largs Oval	Largs Avenue	S1	13666
LOCHINVAR	Lochinvar No1 Sports Field	Robert Road	S1	19310
LORN	Lorn Park	Melrose Street	S1	13062
MAITLAND	Maitland Park Outer Fields	Maitland Park	S1	104293
RUTHERFORD	Max McMahon Oval	Weblands Street	S1	21614
METFORD	Metford Recreation Area	Ferraby Drive	S1	42823
MORPETH	Morpeth No. 1 Oval	Edward Street	S1	8381
MORPETH	Morpeth No.2 Oval	Edward Street	S1	11672
MAITLAND	No.1 Sportsground	James Street	S1	17188
RUTHERFORD	Norm Chapman Oval	Dunkley Street	S1	26407
MAITLAND	Robins Oval	Maitland Park	S1	28286
ASHTONFIELD	Shamrock Hill Oval	Murphy Circuit	S1	24041
MAITLAND	Smythe Field	James Street	S1	15059
THORNTON	Thornton Oval	Taylor Ave	S1	13897
THORNTON	Somerset Park Sports Fields	Somerset Park	S1	28819
TENAMBIT	Tenambit Oval	Houston Avenue	S1	13648
WOODBERRY	Woodberry No. 1 Oval	Lawson Avenue	S1	21678
E. MAITLAND	Beryl Humble Sports	Metford Road	S2	17844
BOLWARRA	Bolwarra No.2 Oval	Victoria Road	S2	4812
METFORD	Chelmsford Drive Oval	Chelmsford Drive	S2	11285
TELARAH	Hartcher Field	Bligh Street	S2	11492
LOCHINVAR	Lochinvar No.2 Sportsfield	Robert Road	S2	11243
MORPETH	Morpeth Training Field	Edward Street	S2	3194
MAITLAND	Mount Pleasant Street	Mount Pleasant St.	S2	55862
MAITLAND	No.2 Sportsground	James Street	S2	12636
E. MAITLAND	Ron Stewart Sports Area	Banks Street	S2	5052
LOCHINVAR	Ted Coffee Field Lochinvar	Robert Road	S2	8416
RUTHERFORD	Telarah Netball Courts	Green Street	S2	6243
TENAMBIT	Tenambit No.2 Oval	Houston Avenue	S2	24362
WOODBERRY	Woodberry No.2 Oval	Lawson Avenue	S2	13537

Table 5.1.1.6 sportsground asset inventory and valuation

SUBURB	SITE	ASSETS													Install Date	Present Replacement Value	Written Down Value - By age (Useful Life Various)	Actual Value	CONDITION
		Floodlight Poles	Pole Height	Floodlight Lights	Fencing Internal (linear m)	Fencing External (linear m)	Seating	Turf Wicket	Concrete Wicket	Synthetic Grass Surface	Practice Nets	Sight Screens	Discus Cage	Baseball Facility					
Useful Life		**50**		**12**	**30**	**30**	**20**	**50**	**60**	**10**	**30**	**25**	**25**	**40**					
ASHTONFIELD	Shamrock Hill Oval		20												2000	26,000	21,320	21,320	5
				8											2000	16,000	4,000	4,000	3
					255										2000	17,850	12,495	12495	4
			2				10								2008	3,000	2,850	2,850	5
								1							2003	12,000	10,560	10,560	5
BOLWARRA	Bolwarra No.1 Oval	4	18												1989	48000	28,800	28,800	4
				12											2007	24,000	20,000	20,000	5
					644										1985	64,400	12,880	12,880	2
						100									2006	10,000	9,000	9,000	5
							11								1989	3,300	0	0	1
								1							1985	12,000	6,240	6,240	4
											1				1990	30,000	11,000	11,000	3
EAST MAITLAND	John Sullivan Field Cooks Square Park	4	20												2000	52000	42,640	42,640	5
				24											2000	48,000	12,000	12,000	3
						157									2008	10,990	10,624	10,624	5
						497									1975	34,790	-4,639	0	1
					395										1975	39,500	-5,267	0	1
							40								1995	12,000	3,600	3,600	3

EAST MAITLAND	King Edward Park Oval	**4**											**2005**	**48000**	**44,160**	**44,160**	**5**
				8									2005	16,000	10,667	10,667	4
					462								2006	36,960	33,264	33,264	5
							8						2000	2,400	1,320	1,320	4
								1					1970	12,000	2,640	2,640	2
TENAMBIT	Beryl Humble Sports	4	20										1975	52,000	16,640	16,640	3
		1	25										2005	15,000	13,800	13,800	5
				23									1989	46,000	-30,667	0	1
					120								2005	9,600	8,320	8,320	5
					405								1975	40,500	-5,400	0	1
							56						1989	16,800	0	0	1
										1			2002	3,500	1,050	1,050	3
									1				2002	13,000	11,483	11,483	5
GILLIESTON HTS	Roy Jordan Oval	6	28										2006	120,000	112,800	112,800	5
				27									2006	54,000	40,500	40,500	4
								1					1984	12,000	6,000	6,000	4
												1	2007	115,000	109,250	109,250	5
LARGS	Largs Oval	2	18										2000	24000	19,680	19,680	5
				4									2000	8,000	2,000	2,000	3
					420								1975	42,000	-5,600	0	1
						424							1975	33,920	-4,523	0	1
							15						1989	4,500	0	0	1
								1					1969	12,000	2,400	2,400	2
											1		2000	30,000	21,000	21,000	4
LOCHINVAR	Lochivar Sporting Complex	8	15										2002	80,000	68,800	68,800	5
				19									2002	38,000	15,833	15,833	3
					151								2008	12,080	11,677	11,677	5
					405								1979	40,500	0	0	1
						960							1979	19,200	0	0	1
							12						1979	3,600	-1,800	0	1
								1					1979	12,000	4,800	4,800	3
										1			1985	3,500	-4,900	0	1
									1				1985	13,000	7,800	7,800	4

											1			2003	30,000	24,000	24,000	5
LORN	Lorn Park	5	20											1999	65,000	52,000	52000	5
				20										1999	40,000	6,667	6666.6667	2
					405									1998	89,100	56430	56430	4
							20							1999	6,000	3,000	3,000	4
								1						2003	12,000	10560	10560	5
											1			2003	30,000	24,000	24,000	5
												2		1999	20,000	12,000	12,000	4
MAITLAND	Maitland Croquet	6	18											2008	72,000	70,560	70,560	5
				8										2008	16,000	14,667	14,667	5
MAITLAND	Mait. Park Sports Fields	6	30											2009	120,000	120,000	120,000	5
				24										2009	48,000	48,000	48,000	5
					396									1991	59,400	23,760	23,760	3
								5						2004	60,000	54,000	54,000	5
											1			2009	30,000	30,000	30,000	5
												1		1999	10,000	6,000	6,000	4
MAITLAND	No.1 Sportsground	4	33											1979	100,000	40,000	40,000	3
				24										1979	48,000	-72,000	0	1
					470									1994	70,500	35,250	35,250	4
						621								1994	124,200	62,100	62,100	4
							95							2000	20,000	11,000	11,000	4
MAITLAND	Smythe Field & No.2 Sportsground	7	20											1979	91,000	36,400	36,400	3
				19										2006	38,000	28,500	28,500	4
						215								1990	8,600	3,153	3,153	3
													2	2002	12,000	8,640	8,640	4
MAITLAND	Mt Pleasant St								4					1969	13,000	4,333	4,333	3
METFORD	Fieldsend Oval	6	20											1999	78,000	62,400	62,400	5
				16										1999	32,000	5,333	5,333	2
					124									2006	9,920	8,928	8,928	5
					148									2006	10,360	9,324	9,324	5
					233									1989	16,310	5,437	5,437	3
							10							1994	3,000	750	750	3
										1				2004	3,500	1,750	1,750	4

									1				2004	13,000	11,917	11,917	5
METFORD	Metford Recreation Area	4	24										2000	60000	49,200	49,200	5
				15									2000	30,000	7,500	7,500	3
						455							2004	31,850	26,542	26,542	5
						310							2004	18,600	15,500	15,500	5
							5						2000	1,500	825	825	4
								1					2000	12,000	9,840	9,840	5
										1			2000	3,500	350	350	2
									1				2000	13,000	11,050	11,050	5
												2	2000	12,000	7,680	7,680	4
METFORD	Chelmsford Drive Oval	4	22										2003	56000	49,280	49,280	5
				8									2003	16,000	8,000	8,000	4
						113							2006	7,910	7,119	7,119	5
						271							1985	18,970	3,794	3,794	2
										1			1985	3,500	-4,900	0	1
									1				1985	13,000	7,800	7,800	4
MORPETH	Morpeth No.1 & No.2 Ovals	4	20										2004	52000	46,800	46,800	5
		6	20										2000	78000	63,960	63,960	5
				14									2004	28,000	16,333	16,333	4
				12									2000	24,000	6,000	6,000	3
					390								2006	31,200	28,080	28,080	5
							4						1990	1,200	60	60	1
								1					1969	12,000	2,400	2,400	2
											1		2008	30,000	29,000	29,000	5
RUTHERFORD	Max Mcmahon Oval	2	20										2004	26000	23,400	23,400	5
		2	15										1980	20000	8,400	8,400	3
				8									2004	16000	9,333	9,333	4
				11									2006	22,000	16,500	16,500	4
					351								2005	28,080	24,336	24,336	5
								1					1979	12,000	-6,000	0	1
RUTHERFORD	Norm Chapman Oval	2	35										2008	40,000	39,200	39,200	5
		2	22										2004	28,000	25,200	25,200	5
		2	22										2000	28,000	22,960	22,960	5

RUTHERFORD	Norm Chapman Oval			24								2002	48,000	20,000	20,000	3
				8								2008	16,000	14,667	14,667	5
					120							2006	9,600	8,640	8,640	5
						495						1994	49,500	24,750	24,750	4
							15					2007	4,500	4,050	4,050	5
										1		2008	3,500	3,150	3,150	5
									1			2008	13,000	12,783	12,783	5
											1	2002	30,000	23,000	23,000	4
TELARAH	Coronation Oval	3	20									2004	39000	35,100	35,100	5
		1	18									1980	12000	5,040	5,040	3
				19								2004	38,000	22,167	22,167	4
					150							2005	12,000	10,400	10,400	5
					263							1995	26,300	14,027	14,027	4
								1				1969	12,000	2,400	2,400	2
TELARAH	Hartcher Field	2	18									2004	24,000	21,600	21,600	5
		2	10									1979	16,000	6,400	6,400	3
				4								2004	8,000	4,667	4,667	4
				2								1979	4,000	-6,000	0	1
					420							1987	42,000	11,200	11,200	3
											1	2006	30,000	27,000	27,000	5
TENAMBIT	Tenambit No.1 & No 2 Ovals	2	25									2007	32,000	30,720	30,720	5
		2	22									2000	32,000	26,240	26,240	5
				6								2007	12,000	10,000	10,000	5
				6								2000	12,000	3,000	3,000	3
					1009							1988	40,360	12,108	12,108	3
						400						1980	40,000	1,333	1,333	1
							28					1991	8,400	840	840	2
								1				1960	12,000	240	240	1
											1	1990	30,000	11,000	11,000	3
THORNTON	Thornton Oval	2	22									2008	28,000	27,440	27,440	5
		3	22									2002	42,000	36,120	36,120	5
				15								2002	30,000	12,500	12,500	3
					412							2005	90,640	78,555	78,555	5

THORNTON	Thornton Oval								1					1979	12,000	4,800	4,800	3
												1		2003	30,000	24,000	24,000	5
													2	2005	20,000	16,800	16,800	5
THORNTON	Allan & Don Lawrence Sports	7	20											2004	91000	81,900	81,900	5
					18									2004	36,000	21,000	21,000	4
						114								2005	7,980	6,916	6,916	5
							190							2006	11,400	10,260	10,260	5
									1					1998	12,000	9,360	9,360	4
											1			1998	3,500	-350	0	1
										1				1998	13,000	10,617	10,617	5
THORNTON	Somerset Park	4	28											2006	80,000	75,200	75,200	5
				16										2006	32,000	24,000	24,000	4
															12,000	11,500	11,500	4
WOODBERRY	Woodberry No.1 & No.2 Ovals	4	18											1984	48000	24000	24000	4
					12									1989	24,000	-16,000	0	1
								11						2004	3,300	2,475	2,475	4
									1					1979	12,000	4,800	4,800	3
		129			434										**4,921,070**		**3,079,958**	

Playground Expenditure

Existing Assets

Council currently has 70 playground sites (28 larger and 43 smaller) spread across the Local Government Area. In addition to routine maintenance and safety inspections all playgrounds are surveyed annually resulting in a condition assessment. A proposed schedule of replacement is developed in accordance with the condition assessment and age of the installation. Prior to 2003 there were a total of 97 playground sites citywide. Currently of the 70 playground sites, 35 are in excess of 10 years old and 11 are 15 years old or older.

Service Levels

Playgrounds should be inspected twice annually to ensure that that meet the relevant Australian Standard.

Capital expenditure:

Given an adopted live cycle of 18 years, an average of 4 playgrounds will be required to be replaced each year. Further, one additional playground will be required each year to keep pace with the growth of the city. That is, 5 playground will be require at a cost of $50,000 for each smaller playground and $80,000 for each larger playground, an average cost of $63,000 per site.

Maintenance Costs

To inspect and maintain playgrounds to the current Australian Standards approximately $100,000 per year is required (costs based on, 1 person, plant and materials for 26 weeks, plus the cost of replacement parts)

Maintenance of Soft-Fall Areas

The Australian Standard requires Council to maintain an impact attenuating surface (soft-fall area) under playground equipment. The vast majority of the soft-fall areas are filled with pine park chips. The standard requires this to be a depth of 300mm. The location and size of each playground has been recorded. The total area of all soft-fall areas is approximately 8,000 m2. Given that each playground usually requires an annual topping-up of 50mm minimum, 400 cubic metres of pine bark is required annually at a supply cost of approximately $20,000

Table 5.1.1.3 PLAYGROUND INVENTOTY AND VALUATION

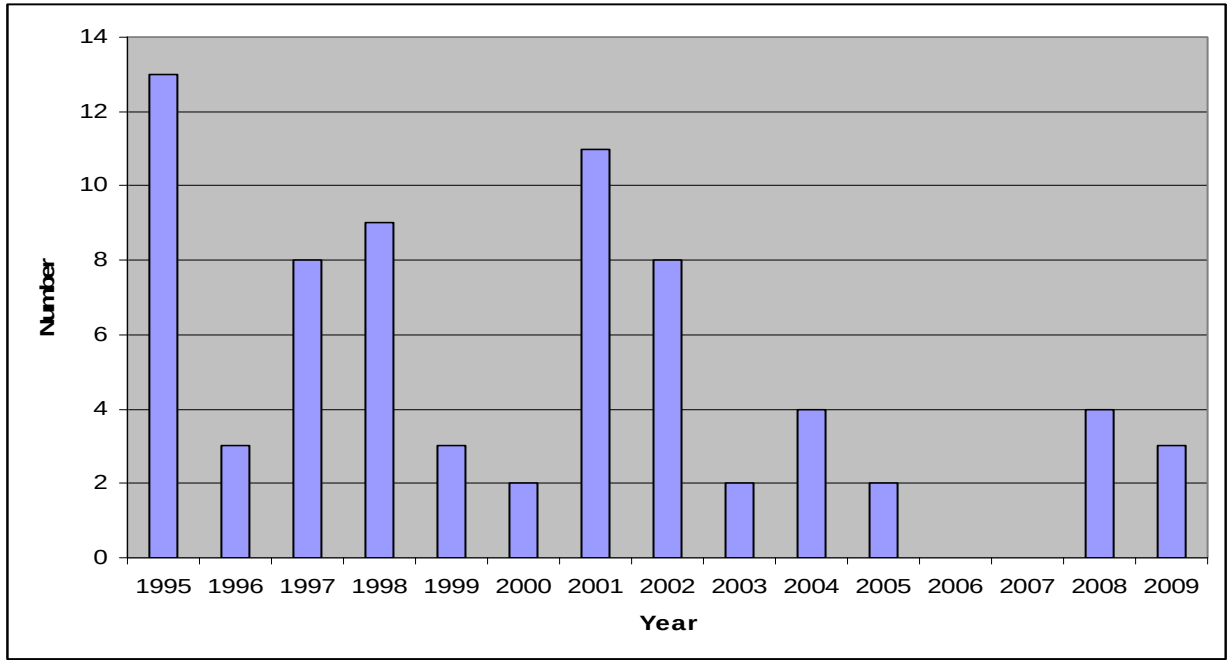
Suburb	Location	Description	Installation Date	Useful Life	Purchase Cost	Installed Cost	Present Replacement Value (f/p,3%,age)	Age	Written Down Value - By age (Useful Life=25yrs)	Conditio
ASHTONFIELD	Ashtonfield Reserve	Butterfield	2005	20	*$25,000*	*$25,000*	$28,138	4	$22,510	4
ASHTONFIELD	Leinster Circuit	Megaoty system and swings	2001	20	$12,595	$33,731	$42,729	8	$25,638	3
ASHTONFIELD	Norfolk Avenue	Megatoy System & swing	2009	20	$12,138	$19,888	$19,888	0	$19,888	5
BOLWARRA	Bolwarra Lookout	Ausplay system with shadecover	1995	20	$12,000	*$21,000*	*$31,764*	14	$9,529	2
BOLWARRA	Bolwarra Sports Complex	Megatoy system, swing, spring play	1996	20	$3,333	*$5,833*	$8,566	13	$2,998	3
BOLWARRA Hts.	Benshulla Drive	Megatoy system and swing	1995	20	$14,902	$26,079	$39,446	14	$11,834	4
EAST MAITLAND	Anzac Park	Ausplay slide and spring play	1998	20	*$5,000*	*$8,750*	$12,112	11	$5,450	3
EAST MAITLAND	Brooklyn Park	Ausplay system and swing	1995	20	$20,000	*$35,000*	$52,941	14	$15,882	3
EAST MAITLAND	Centennial Park	Ausplay swings, slide and spring play	1998	20	$4,209	*$7,366*	$10,196	11	$4,588	3
EAST MAITLAND	Chisolm Road	Ausplay system, swing, and spring play	1997	20	*$30,000*	*$25,000*	$35,644	12	$14,258	3
EAST MAITLAND	Cooney Park	Ausplay system	1997	20	$16,470	*$28,823*	$41,094	12	$16,438	3
EAST MAITLAND	East Maitland Pool	Playground within east maitland pool	1996	20	*$5,000*	*$8,750*	$12,850	13	$4,497	4
EAST MAITLAND	Eckford Reserve	Megatoy system and swings	2003	20	$11,570	*$20,248*	$24,177	6	$16,924	4
EAST MAITLAND	Fern Place	Megatoy Play System, Double Swing	2004	20	$10,567	*$18,492*	$21,438	5	$16,078	4
EAST MAITLAND	Goodhugh Street	Megatoy system and swings	1998	20	$16,786	*$29,376*	$40,663	11	$18,298	4
EAST MAITLAND	Greenhills Gardens	Ausplay system, swings and spring play	1990	20	$20,850	*$36,488*	$63,981	19	$3,199	3
EAST MAITLAND	Heritage Park	Megatoy system, swings and spring play	1998	20	$5,273	*$9,228*	$12,773	11	$5,748	3
EAST MAITLAND	King Edward Park	Ausplay system with pine bark softfall	1994	20	$11,162	*$19,534*	$30,433	15	$7,608	3
EAST MAITLAND	Victoria Street	Ausplay slide, swings and spring play	2002	20	$3,420	*$5,985*	$7,361	7	$4,785	4
GILLIESTON H	Beckett Street	Double swing and spring play	2004	20	$10,567	*$18,492*	$21,438	5	$16,078	2
GILLIESTON H	Gillieston Heights Oval	Ausplay system with shade cover	1994	20	*$15,000*	*$26,250*	$40,897	15	$10,224	2
LARGS	Largs Park and Oval	Forpark system & swing	2009	20	$22,485	$38,995	$38,995	0	$38,995	5
LOCHINVAR	Lochinvar Oval	Megatoy system, swings and spring play	2001	20	$8,745	*$15,304*	$19,386	8	$11,632	4
LOCHINVAR	Gregory Road	Megatoy system, swings and spring play	2001	20	$19,097	*$33,420*	$42,335	8	$25,401	4
LOCHINVAR	Porter Place	Ausplay slide swings and spring play	1996	20	*$15,000*	*$26,250*	$38,549	13	$13,492	3
LORN	Lorn Avenue	Ausplay system	1996	20	*$10,000*	*$17,500*	$25,699	13	$8,995	3
LORN	Lorn Park	Site #2 - Ausplay slide and spring play	1997	20	$5,000	*$8,750*	$12,475	12	$4,990	2
LORN	Lorn Park	Site #1 - Megatoy system and swings	2002	20	$14,910	$22,607	$27,804	7	$18,072	4
MAITLAND	Maitland Park		2001	20	$4,500	*$7,875*	$9,976	8	$5,985	4
MAITLAND	Maitland Park		1999	20	$27,830	*$48,703*	$65,452	10	$32,726	3
MAITLAND	Maitland Park	Site #6 - Liberty / Accessible Swing	2002	20	*$20,000*	*$30,000*	$36,896	7	$23,983	4
MAITLAND	Maitland Park	Site #7 - Infants (Eastern Side of Pool)	1997	20	$5,309	*$9,291*	$13,246	12	$5,299	3
MAITLAND	Maitland Park	Site #8 - Juniors (Eastern side of pool)	1997	20	$15,867	*$27,767*	$39,589	12	$15,836	3
MAITLAND	Maitland Pool	Site #9 - within Maitland Pool	1995	20	*$7,000*	*$12,250*	$18,529	14	$5,559	2
MAITLAND	Maitland Sportsground	Ausplay slide, swings and spring play	1995	20	*$10,000*	*$17,500*	$26,470	14	$7,941	2
MAITLAND	Victoria Street	Megatoy swing	2004	20	$10,567	*$18,492*	$21,438	5	$16,078	3
METFORD	Casuarina Crescent	Ausplay system and swings	1997	20	*$20,000*	*$15,000*	$21,386	12	$8,555	1
METFORD	Chelmsford Drive Oval	Megatoy system and swings	2001	20	$9,000	*$15,750*	$19,952	8	$11,971	3

METFORD	Willow Drive	Moduplay system and swings	2000	20	$13,000	*$22,750*	$29,684	9	$16,326	2
METFORD	O'Donell Crescent	Forpark system, Megatoy swing	2008	20	$13,259	*$23,203*	$23,899	1	$22,704	4
MORPETH	/Ray Lawler Res.	Accessible playground	2002	20	$37,503	*$65,630*	$80,717	7	$52,466	4
MORPETH	Noel & Daphne Unicomb	Ausplay slide, swings and spring play	1995	20	$3,661	*$6,407*	$9,691	14	$2,907	3
OAKHAMPTON	Walka Water Works Res.	Forpark items & 2 Forpark swings	2008	20	$13,625	*$23,844*	$24,559	1	$23,331	5
RAWORTH	Lantry Close	Ausplay playground and spring play	1995	20	$11,160	*$19,530*	$29,541	14	$8,862	2
RUTHERFORD	Honey Oak Drive	Megatoy system and swings	2001	20	*$37,000*	*$40,000*	$50,671	8	$30,402	4
RUTHERFORD	Melbee Street	Megatoy system, swings and spring play	2003	20	$7,534	*$13,185*	$15,743	6	$11,020	4
RUTHERFORD	Norm Chapman Oval	Megatoy system and swings	2001	20	$20,207	$36,943	$46,798	8	$28,079	4
TELARAH	Bligh Street	Ausplay system with shade	1997	20	*$10,000*	*$17,500*	$24,951	12	$9,980	3
TELARAH	McDonald Street	Slippery dip and swings	1998	20	$1,773	*$3,103*	$4,295	11	$1,933	3
TELARAH	Taree Avenue	Megatoy system, swing and spring play	2002	20	$9,963	*$17,435*	$21,443	7	$13,938	4
TELARAH	Telarah Park (Russell St)	Megatoy system and swings	2002	20	$9,148	*$16,009*	$19,689	7	$12,798	2
TENAMBIT	Beryl Humble Complex	Megatoy system, swings and spring	1995	20	$10,000	*$17,500*	$26,470	14	$7,941	2
TENAMBIT	Korbel Street	Forpark swing	2008	20	$3,768	*$6,594*	$6,792	1	$6,452	3
TENAMBIT	Lena Obrien Park	Megatoy system	2000	20	*$10,000*	*$17,500*	$22,834	9	$12,558	4
TENAMBIT	Stace Crescent	Megatoy system and swings	2004	20	$10,567	*$18,492*	$21,438	5	$16,078	4
TENAMBIT	Tom Lantry Park	Ausplay system, swings and spring play	1993	20	$12,437	*$21,765*	$34,926	16	$6,985	2
TENAMBIT	Troy Close	Megatoy System & swing	2005	20	$6,900	*$12,075*	$13,591	4	$10,872	3
THORNTON	A & D Lawrence Sports	Megatoy modular system	2002	20	$22,608	$37,318	$45,896	7	$29,833	4
THORNTON	Parkwood North	Megatoy system, swings and spring	2002	20	$20,207	*$35,362*	$43,491	7	$28,269	3
THORNTON	Somerset Park No.2	Unknown slide	1998	20	*$5,000*	*$2,000*	$2,768	11	$1,246	4
THORNTON	Somerset Park No1	Megatoy system and spring play	1998	20	*$30,000*	*$35,000*	$48,448	11	$21,802	3
THORNTON	Thornton Park	Ausplay	1993	20	$14,792	*$25,886*	$41,539	16	$8,308	1
WINDELLA	Cecily Reserve	Megatoy system and swings	2004	20	$16,349	*$28,611*	$33,168	5	$24,876	4
WOODBERRY	Fred Harvey Sports	Megatoy swings, slide and spring play	1997	20	*$5,000*	*$8,750*	$12,475	12	$4,990	3
WOODBERRY	Ibis Parade	Megatoy system, swings and spring	1998	20	$3,312	*$5,796*	$8,023	11	$3,610	3
WOODBERRY	Sophia Jane	Forpark system & Forpark swings	2009	20	$31,000	$42,143	$42,143	0	$42,143	5
							$1,862,389		**$968,673**	

Note; figures in italics are estimates only "Installed Cost" is the cost of the completed project, ie 175% of purchase cost

Playgrounds 15 yr Projected Spend (2009 $ value)

Playground Installation History



Note; the year 1995 indicates all playground installed on or before 1995.

Table 5.1.1.4 Barbeque Inventory and Valuation

SUBURB	LOCATION	Description	Installation Date	Useful Life	Installation Cost	Present Replacement Value (f/p,3%,age)	Age	Written Down Value - By age (Useful Life=30yrs)	Condition
ASHTONFIELD	Adele Cr.	single plate, tile bench	1981	20	$3,500	$8,248	28	$275	2
BOLWARRA	Bolwarra Lookout	double plate, tile bench	1980	20	$3,500	$8,248	29	$275	1
EAST MAITLAND	Rotary Park	double plate, s/steel bench	1982	20	$3,500	$8,248	27	$275	1
EAST MAITLAND.	Green Hills Garden	double plate, tile bench	1979	20	$3,500	$8,248	30	$275	2
EAST MAITLAND.	Heritage Park	double plate, tile bench	1983	20	$3,500	$8,248	26	$275	2
MAITLAND PARK	Maitland Park	2x double plat, concrete bench	1984	20	$3,500	$8,248	25	$275	3
MAITLAND PARK	Maitland Park	single plate, s/steel bench	2006	20	$7,500	$8,195	3	$7,376	4
MAITLAND PARK	Maitland Park	single plate, s/steel bench	2006	20	$7,500	$8,195	3	$7,376	4
MAITLAND PARK	Visitors Centre	single plate, s/steel bench	1994	20	$4,605	$6,965	14	$3,715	3
MAITLAND PARK	Croquet Courts	double plate, tile bench	1995	20	$5,365	$8,115	14	$4,328	3
MAITLAND PARK.	Devonshire St.	double plate, tile bench	1990	20	$4,605	$8,075	19	$2,961	4
MORPETH	Illalaung Park	single plate, tile bench	1997	20	$5,365	$8,115	12	$4,328	3
MORPETH.	Ray Lawler Res.	double plate, tile bench	1978	20	$3,500	$8,248	29	$275	1
TELARAH	Telarah Lagoon	single plate, s/steel bench	2001	20	$6,250	$8,155	8	$5,708	4
TENAMBIT	Tom Lantry Park	double plate, tile bench	1985	20	$3,500	$8,248	24	$275	2
						$129,955		**$43,700**	

Table 5.1.1.5 Skatepark Inventory and Valuation

Suburb	Location	Description	Installed Date	Useful Life	Installed Cost	Present Replacement Value (f/p,3%,age)	Age	Written Down Value - By age (Useful Life=40yrs)	Condition
Woodberry	Lawson Avenue	Precast concrete	2001	30	14,000	17,735	8	13,006	
Thornton	Taylor Avenue	Precast concrete	2001	30	41,925	53,109	8	38,947	
Metford	Schanck Drive	Precast concrete	2000	30	70,000	91,334	9	63,934	
Maitland	Smythe Field	Insitu concrete	1995	30	20,000	30,252	14	16,134	
Maitland	Harold Gregson Res.	Precast concrete	1999	30	130,612	175,532	10	117,021	
Largs	Largs Oval	Insitu concrete	2000	30	25,518	33,295	9	23,307	
						$401,257		**$272,348**	

Table 5.1.1.7 SPORTS GROUNDS AND PARK ROADS AND CARPARKS

ADDRESS	SUBURB	CARPARK	PARK ROAD	AREA	INSPECTION DATE	CONDITION RATING
Lawson Avenue	Woodberry	Yes		1567	24.09.09	3
Lawson Avenue	Woodberry		Yes	888	24.09.09	3
Edward Street	Morpeth	Yes		1273	24.09.09	2
Houston Avenue	Tenambit	Yes		3385	24.09.09	3
William Street	East Maitland	Yes		2233	24.09.09	4
Ferraby Drive	Metford	Yes		1160	24.09.09	4
Murphy Circuit	Ashtonfield	Yes		1155	24.09.09	5
Cartwright Street	Gillieston Heights		Yes	820	24.09.09	4
Banks Street	East Maitland	Yes		685	24.09.09	3
Government Rd	Thornton	Yes		3373	24.09.09	4
Government Rd	Thornton		Yes	1420	24.09.09	5
Somerset Park	Thornton	Yes		1611	24.09.09	5
Somerset Park	Thornton		Yes	2160	24.09.09	4
Weblands Street	Rutherford	Yes		325	24.09.09	4
Dunkley Street	Rutherford	Yes		2630	24.09.09	4
Melrose Street	Lorn	Yes		325	24.09.09	4
Melrose Street	Lorn		Yes	2234	24.09.09	4
James Street	Maitland		Yes	1350	25.09.09	4
James Street	Maitland		Yes	3081	25.09.09	4
Largs Avenue	Largs		Yes	1287	25.09.09	3
Victoria Road	Bolwarra	Yes		1361	25.09.09	4
Victoria Road	Bolwarra		Yes	3320	25.09.09	4
Bligh Street	Telarah	Yes		4291	25.09.09	3
Bligh Street	Telarah		Yes	1152	25.09.09	3
Bligh Street	Telarah	Yes		852	25.09.09	4
Robert Street	Lochinvar	Yes		1350	25.09.09	4
Robert Street	Lochinvar		Yes	580	25.09.09	4
Chelmsford Drive	Metford	Yes		1760	25.09.09	4
Metford Road	Metford	Yes		1155	25.09.09	4
Metford Road	Metford		Yes	1095	25.09.09	4
Fieldsend Street	Metford	Yes		1050	25.09.09	3
Fieldsend Street	Metford		Yes	166	25.09.09	3
Maitland Park	Maitland	Yes		1020	25.09.09	4
Maitland Park	Maitland	Yes		1333	25.09.09	4
Maitland Park	Maitland	Yes		2600	25.09.09	4
Maitland Park	Maitland	Yes		905	25.09.09	4
Maitland Park	Maitland	Yes		282	25.09.09	4
Maitland Park	Maitland	Yes		109	25.09.09	4
Maitland Park	Maitland		Yes	11720	25.09.09	4
			Sub Total	**69,063**		
			Value @ $15/m		**$1,035,945**	

5. LIFECYCLE MANAGEMENT PLAN

The lifecycle management plan details how Council 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:

5.1.1 Physical parameters The assets covered by this asset management plan are shown below.

Asset category	Dimension	Current Written Down Value	Replacement Value ($M)
Open space areas passive rec.. parks, reserves and bushland.	374 Hectares		Yet to be valued
Open space areas dedicated to active recreation, i.e. sport.	76 Hectares		Yet to be valued
Fixed assets located within areas of passive recreation use. (Parks) (20 year useful life)***	70 Playgrounds	$960,000	$1,862,000
	5 Skateparks	$272,000	$401,000
	20 Public barbeques	$44,000	$130,000
	Numerous Items of park furniture	$100,000 ie 40%*	$250,000**
	Signage	$120,000 ie 60%*	$200,000**
	Park fencing	$250,000 ie 50%*	$500,000**
	Park lighting	$160,000 ie 80%*	$200,000**
	Sub Total	**$1,906,000**	**$3,543,000**
Fixed assets located within sportsgrounds (30 year useful life)***	1 Baseball facilitates	$190,000	$200,000
	Sportsground floodlighting	$1,713,000	$2,191,000
	Sportsground fencing	$566,000	$1,267,000
	Cricket wickets & practice nets	$290,000	$368,000
	Other sportsground assets	$797,000	$980,000
	Sub Total	**$3,556,000**	**$4,906,000**

Paved surface sports facilities. (30 year useful life)***	34 Netball courts 43 Tennis courts 1 Hockey facility Sub Total	$1,090,400 ie 80%* $1,840,800 ie 80%* $1,080,000 ie 90%* **$4,011,200**	$1,363,000 $2,301,000 $1,200,000 **$4,864,000**
Internal park roads and Sportsground car parks. (40 year useful life)***	32,000 m^2 park roads (approx. 5.3 k) 38,000 m^2 Car parking **Sub Total**	$1,407,500 ie 50% $1,700,500 ie 50% **$3,108,000**	$2,815,000 $3,401,000 **$6,216,000**
TOTAL		**$12,581,200**	**$19,529,000**

Table 5.1.2. Known Service Performance Deficiencies

Asset Class	Service Deficiency
Sports Field Floodlighting	The majority of floodlighting assets are in good condition as the majority of locations have relatively new installations. However existing sports field floodlighting rarely complies with Australian Standards for training level illumination. Further, funding has been historically insufficient to meet maintenance needs and is not sufficient to cover replacement of redundant assets
Sports Ground Fencing	In 2005 a thorough condition assessment of sports grounds fencing was undertaken. Subsequently $100,000 was allocated to replace sections of fencing on a priority basis. A current condition assessment suggests that a programme of replacement is required at many locations including Maitland's Number One Sports Ground.
Signage	Signage throughout parks and sports grounds does not meet Best Practice guidelines for remote supervision as determined by State Wide Mutual. Deficiencies include lack of a signage audit, hierarchy of locations and style continuity. A 2009 resolution of Council requires the installation of "No Smoking" signs at playground and sports venues.
Park Furniture including barbeques	There is a general lack of seating and shelter at the city's principal parks and sports grounds. Worn or damaged seating has often not been replaced. There is very little continuity of style and the majority of facilities are not easily accessed by elderly or persons with a disability. The majority of barbeques are in poor condition. These assets do not meet community expectations and present an unfavourable image to the city's visitors.
Playgrounds	The current provision of playground dose not meet the stated level identified in Council's contribution plans, which is a playground for every 955 residents. The distribution of playgrounds is inconstant. The rate of new playground installation and replacement is not meeting the asset replacement useful life schedule. The provision of shade at playgrounds is inconsistent and unsustainable within current maintenance funding.

With the exception of Signage and Park furniture the above service deficiencies were identified from condition assessments based on age and visual assessment. On a 1 to 5 scale, only assets in a condition 1 or 2 have been identified for replacement or renewal.

Cost to bring to satisfactory condition – funding required

Asset Class	Replacement Value	Estimated Funding Required
Sports Field Floodlighting	$2.191,000	$158,000 required
Sports Ground Fencing	$1,267,000	$451,000 required
Signage	Unknown	$50,000 required
Park Furniture including bbqs	$230,000 estimate	$57,000 required
Playgrounds	$1,862,000	$355,000 required
	TOTAL	**$1,071,000**

Assets covered by this asset management plan are shown below.

Asset category	Dimension	Current Written Down Value	Replacement Value ($M)
Open space areas passive rec.. parks, reserves and bushland.	374 Hectares		Yet to be valued
Open space areas dedicated to active recreation, i.e. sport.	76 Hectares		Yet to be valued
Fixed assets located within areas of passive recreation use. (Parks) (20 year useful life)***	70 Playgrounds	$960,000	$1,862,000
	5 Skateparks	$272,000	$401,000
	20 Public barbeques	$44,000	$130,000
	Numerous Items of park furniture	$100,000 ie 40%*	$250,000**
	Signage	$120,000 ie 60%*	$200,000**
	Park fencing	$250,000 ie 50%*	$500,000**
	Park lighting	$160,000 ie 80%*	$200,000**
	Sub Total	**$1,906,000**	**$3,543,000**
Fixed assets located within sportsgrounds (30 year useful life)***	1 Baseball facilitates	$190,000	$200,000
	Sportsground floodlighting	$1,713,000	$2,191,000
	Sportsground fencing	$566,000	$1,267,000
	Cricket wickets & practice nets	$290,000	$368,000
	Other sportsground assets	$797,000	$980,000
	Sub Total	**$3,556,000**	**$4,906,000**
Paved surface sports facilities. (30 year useful life)***	34 Netball courts	$1,090,400 ie 80%*	$1,363,000
	43 Tennis courts	$1,840,800 ie 80%*	$2,301,000
	1 Hockey facility	$1,080,000 ie 90%*	$1,200,000
	Sub Total	**$4,011,200**	**$4,864,000**

Internal park roads and Sportsground car parks. (40 year useful life)***	32,000 m^2 park roads (approx. 5.3 k) 38,000 m^2 Car parking **Sub Total**	$1,407,500 ie 50% $1,700,500 ie 50% **$3,108,000**	$2,815,000 $3,401,000 **$6,216,000**
TOTAL		**$12,581,200**	**$19,529,000**

Assumptions; * based on estimated condition assessment and age, ** estimated value, *** useful life used to calculate annual depreciation

5.1.3 Asset condition

The condition of Council's assets in the classes listed above are identified a having performance deficiencies requiring capital expenditure over a number of years.

Condition is measured using a 1 – 5 rating system.[2]

Rating	Description of Condition
5	Only planned maintenance required.
4	Minor maintenance required plus planned maintenance.
3	Significant maintenance required.
2	Significant renewal/upgrade required.
1	Unserviceable.

Overall, the asset condition of the recreation and open space facilities in Maitland is 4, being of good condition with minor and planned maintenance required. This being the average means that there are recreation facilities with conditions rating from 1 through to 5. Overall, 80% of the facilities have a rating of 3 to 5, and 20% of the facilities have a rating of 1 to 2. The target standard for the recreation and open space facilities is to have 85% at 3-5 and 15% at 1-2.

5.1.4 Asset valuations

The value of assets as at July 2009, covered by this asset management plan is summarised below. Assets were last revalued for the development of this plan.

Current Replacement Cost $19,590,000

Depreciable Amount $19,590,000

Depreciated Replacement Cost $12,581,200

Annual Depreciation Expense $658,216

Council's sustainability reporting reports the rate of annual asset consumption and compares this to asset renewal and asset upgrade and expansion.

Asset Consumption3.37%

Asset renewal/upgrade 1.84%

[2] IIMM 2006, Appendix B, p B:1-3 ('cyclic' modified to 'planned')

Annual expansion 1.84%

5.2 Risk Management Plan

An assessment of risks associated with service delivery from infrastructure assets has identified critical risks to Council. The risk assessment process identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, develops a risk rating, evaluates the risk and develops a risk treatment plan for non-acceptable risks.

The Risk Management Plan for Buildings, Recreation and Open Space is attached as Appendix C.

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.

5.3.1 Maintenance plan

Maintenance includes reactive, planned and cyclic maintenance work activities.

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.

Cyclic maintenance is 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.

Maintenance expenditure trends are shown in Table 5.3.1

Year	Maintenance Expenditure Including Mowing Costs		
	Reactive	Planned	Cyclic
2008/09			$1,325,784
2010/11	$264,985	$304,681	$1,465,384

Year	Maintenance Expenditure Excluding Mowing Costs		
	Reactive	Planned	Cyclic
2008/09			
2010/11	$264,985	$304,681	

Planned maintenance work expressed as a % of the total fixed asset maintenance (excluding mowing costs) is 53.48

Maintenance cost analysis for Operational Maintenance for grounds maintenance of recreation land.

Sample Cost Summary for Grounds Maintenance (2009-10)

Category	Code	Cost/m²/year
Primary Parks	P1	$2.03
Secondary Parks	P2	$0.61
Primary Open Space	P3	$0.33
Secondary Open Space	P4	$0.13
Sports Grounds	S1	$0.47

5.3.2 Standards and specifications

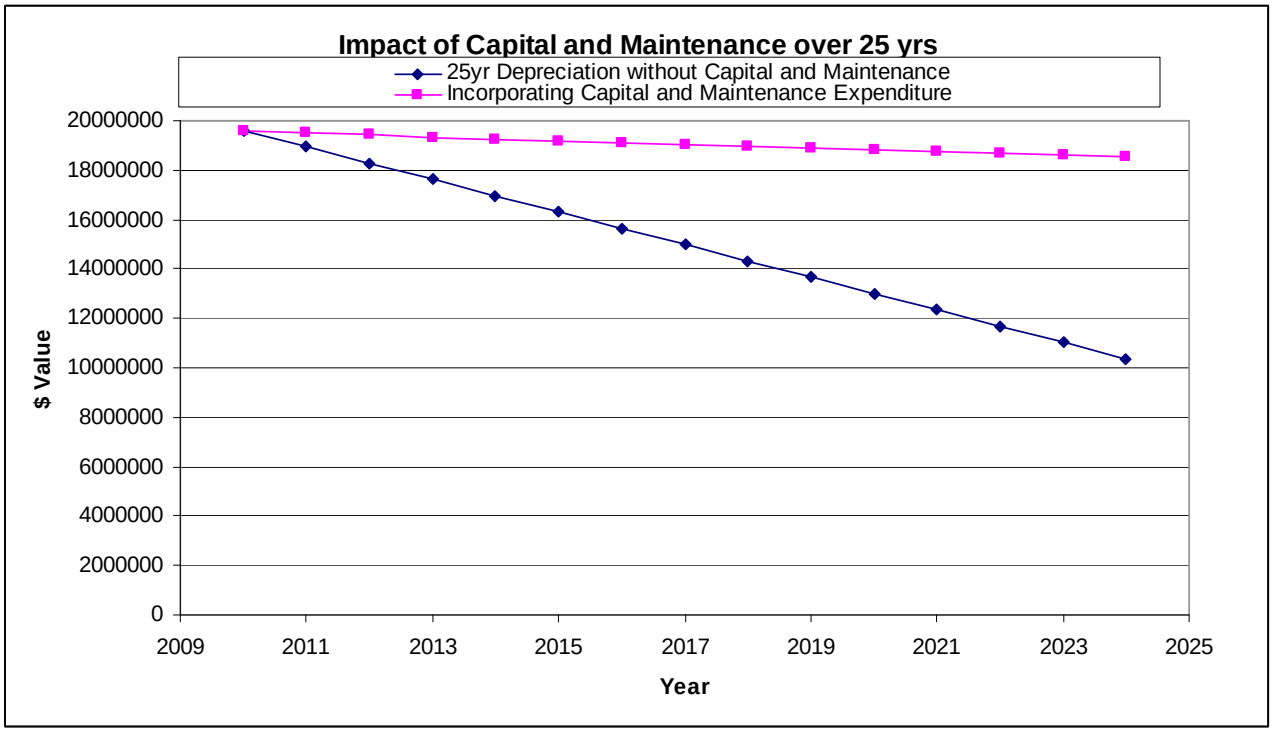
Maintenance work is carried out in accordance with the following Standards and Specifications.

See Service levels above, Walka Water Works and Somerset Park are maintained in accordance to contract specifications.

5.3.3 Summary of future maintenance expenditures

Future maintenance expenditure is forecast to trend in line with the value of the asset stock as shown in Fig 4. Note that all costs are shown in current 2009 -10 dollar values.

Fig 4. Planned Maintenance Expenditure



Note: For the above forecast it is assumed that all planned expenditure (capital works) will be committed to asset renewal and not new initiatives.

Deferred maintenance, ie 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 Council'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

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 and scheduled in future works programmes. The priority ranking criteria is detailed in Table 5.4.1.

Table 5.4.1 Renewal Priority Ranking Criteria

Criteria	Weighting
Fit for purpose	25%
Safety	50%
Maintenance requirements	15%
Community expectation	10%
Total	100%

Renewal will be undertaken using 'low-cost' renewal methods where practical. The aim of 'low-cost' renewals is to restore the service potential or future economic benefits of the asset by renewing the assets at a cost less than replacement cost.

5.4.2 Renewal standards

Renewal work is carried out in carried out in accordance with Standards and Specifications.

5.4.3 Summary of future renewal expenditure

Renewals are to be funded from Council'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 Council from land development. These assets from growth are considered in Section 4.4.

5.5.1 Selection criteria

New assets and upgrade/expansion of existing assets are identified from various sources such as councillor 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 and scheduled in future works programmes. The priority ranking criteria is detailed below.

Table 5.5.1 New Assets Priority Ranking Criteria

Criteria	Weighting
Community request	50%
Age	25%
Condition	25%

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 shown in Section 5.4.2.

5.5.3 Summary of future upgrade/new assets expenditure

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

5.6 Disposal Plan

There are currently no assets identified for possible decommissioning and dispersal.

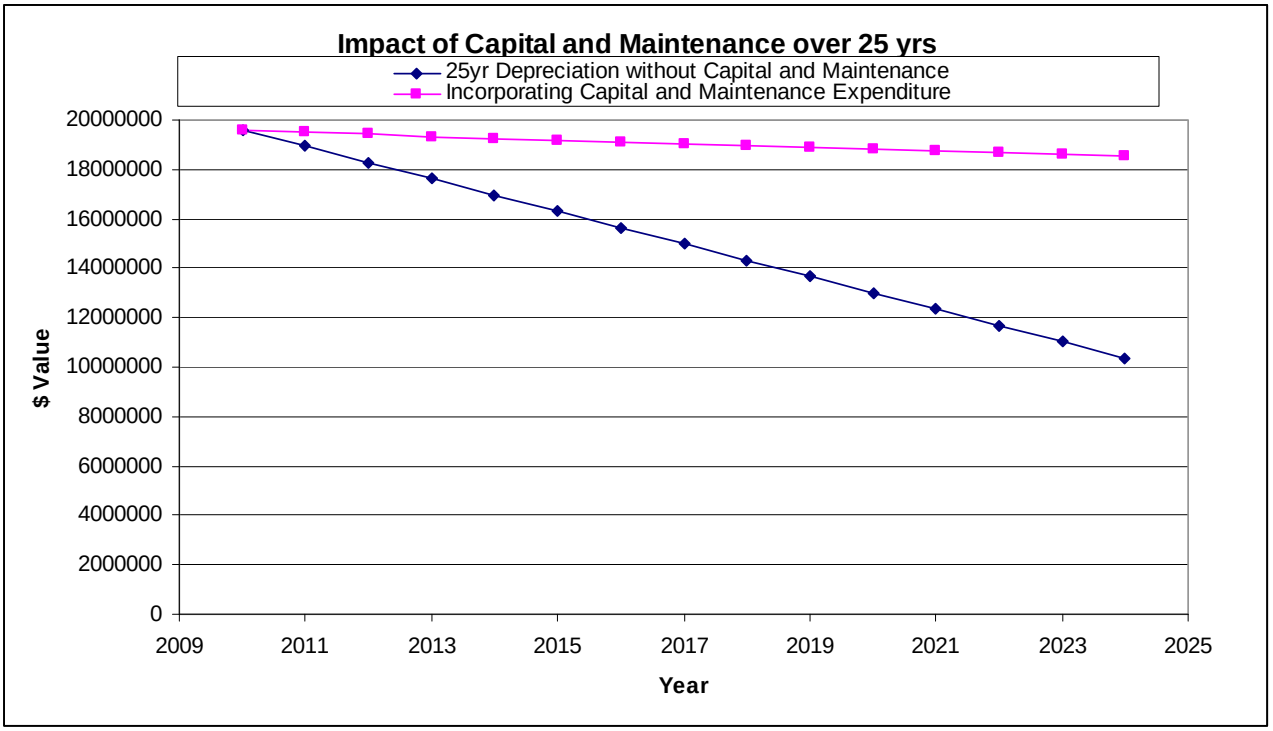
6. FINANCIAL SUMMARY

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 Fig 7 for planned operating (operations and maintenance) and capital expenditure (renewal and upgrade/expansion/new assets).

Fig 7. Planned Operating and Capital Expenditure



Note that all costs are shown in 2008-09 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.

Projected Budget 15 years in 2009/10 dollar values

	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018
Cap.	467063	515063	465063	793063	541063	793063	734730	293730
Maintenance	$2,670,935	$2,670,935	$2,670,935	$2,670,935	$2,670,935	$2,670,935	$2,670,935	$2,670,935
Total	**$3,138654**	**$2886013**	**$3052082**	**3380082**	**3128082**	**3380082**	**3321749**	**2880749**

	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025
Cap.	356730	671730	734730	356730	545730	356730	230730
Maintenance	$2,670,935	$2,670,935	$2,670,935	$2,670,935	$2,670,935	$2,670,935	$2,670,935
Total	**2943749**	**3258749**	**3321749**	**2943749**	**3132749**	**2943749**	**2817749**

6.2 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 asset management plan are:

- The useful life of the majority of constructed assets such as playgrounds, barbeques and fencing is 20 years. This may in time prove to be optimistic.

- The useful life of the majority of constructed assets such as concrete cricket wickets, skateparks and steel floodlighting poles is 30 years. This may in time prove to be conservative.

- Condition assessments have generally been assessed considering the age of the asset.

Accuracy of future financial forecasts may be improved in future revisions of this asset management plan by the following actions.

- The establishment and maintenance of a Recreation Assets Register

- The implementation of a system to enable comprehensive inspections of recreation assets in the field.

7. PLAN IMPROVEMENT AND MONITORING

7.1 Performance Measures

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

- The degree to which the required cashflows identified in this asset management plan are incorporated into council'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;

7.2 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.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

7.3 Monitoring and Review Procedures

This asset management plan will be reviewed during annual budget preparation 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.

The Plan has a life of 4 years and is due for revision and updating within 2 years of each Council election.

REFERENCES

Sample Council, 'Strategic Management Plan 20XX – 20XX,

Sample Council, 'Annual Plan and Budget.

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

APPENDICES

Appendix A - Abbreviations and Glossary of Terms

Appendix B - Projected 25 year Depreciation and Renewal Works Calculations

Appendix C – Buildings, Recreation and Open Space Risk Management Plan

ABBREVIATIONS

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

Project Name	Project Description	Location	Project Detail	Estimate
Parks Fixed Assets	**Fixed Asset Renewals**			
	Primary Parks - Furniture Renovation - Stage 2	Maitland Park	Furniture renewal	$13,236
	Secondary Parks - Furniture Refurbishment - Stage 2	Greenhills Gardens & Blaxland Street	Remove bbqs, repair & repaint furniture	$8,000
	Secondary Parks - Furniture Refurbishment - Stage 2	Elgin Street	Replace remaining seats	$3,000
	Secondary Parks - Furniture Refurbishment - Stage 2	Heritage Park	Replace, repair & repaint furniture, replace bbq.	$25,000
	Rathluba Lagoon Walking Path Refurbishment	East Maitland	Footbridge reconstruction	$10,000
	Walka Water Works - Stage 1 replacement of BBQs	Oakhampton	Replace 2 wood fired bbqs	$20,000
	Primary Parks Furniture Refurbishment - Stage3	Various	tba	$11,236
	Secondary Parks Furniture Refurbishment -Stage 3	Harold Gregson	Repair park furniture	$10,000
	Primary Parks Furniture Refurbishment - Stage 4	tba		$10,000
	Secondary Parks Furniture Refurbishment -Stage 4	tba		$10,000
	Walka Water Works - Stage 2 replacement of BBQs	Oakhampton	Replace 2 wood fired bbqs	$20,000
	Rathluba Lagoon Walking Path Refurbishment	East Maitland	Footbridge reconstruction	$12,326
	Walk Water Works - Floating Pontoon	Oakhampton	Pontoon reconstruction	$30,000
	Maitland Park Fencing Renewal	Maitland Park		$100,000
Playgrounds Various	**Playground Renewal**			
	Replace playground - The Avenue, Lorn	Lorn	Reconstruct playground	$50,000
	Replace playground - Swan Steet	Morpeth	Replacing equipment	$25,000
	Shade Structure - Maitland Park Playground	Maitland	New structure	$15,000
	Remove Playground King Edward Park	East Maitland	(not to be replaced)	$2,000
	Playground replacement - Bolwarra Lookout	Morpeth	Replacement	$45,000
	Remove Playground - Lantry Close	Rayworth	(not to be replaced)	$2,000
	Provision of Shade	Various		$25,000
	Replace playground - No1 Sportsground	Maitland		$45,000
	Replace playground - Maitland Pool	Maitland		$35,000
	Provision of Shade	Various	tba	$20,000
	Playground replacement - Roy Jordan Oval	Gillieston Heights	Replacement	$43,000
	Replace playground - Brooklyn Park	East Maitland		$45,000
	Provision of shade	Various		$20,000
	Playground replacement	Various	Replacement of equipment	$100,000
Sportsgrounds Fixed Assets	**Fixed Asset Renewals**			
	No.1 Sportsground Fence Stage 2	Maitland	233m fence replacement	$40,000
	Roy Jordan Oval - Fence Renewal	Gillieston Heights	100 m fence replacement	$10,000
	Beryl Humbles Sports Complex Fence Renewal	Tenambit	100 m fence replacement	$10,000
	Lochinvar Oval - Cricket Practice wickets	Lochinvar	Extend concrete run-ups	$4,000
	Cook Square Park	East Maitland	Exterior fence renewal	$30,000
	Norm Chapman Oval Synthetic Cricket Wicket	Rutherford	Reconstruct wicket	$15,000
	Bolwarra Oval - Fencing	Bolwarra Heights	Install top rail & wire	$30,000

	Thornton Oval Seat Replacement	Thornton	Seating to replace logs	$13,236
	Morpeth Oval - fencing	Morpeth	Front fence replacement	$15,000
	Lochinvar Oval -Fencing	Lochinvar	External fence replace	$30,000
	Fieldsend Oval - Seating	Various	Seating renewal	$10,000
	Largs Oval Fence Renovation	Largs	Replacement of wire only	$15,000
	Fred Harvey Sports Complex - Fence Stage 1	Woodberry		$27,000
	Metford Recreation Area -Fencing	Metford	External fence renewal	$20,000
	Floodlighting Refurbishment	Various		$300,000
	Sports grounds seating	Various		$15,000
Sportgrounds Improvements	**Playing Surface Improvements**			
	Major playing surface renovation	Various	re inspection	$20,000
	Carpark & internal road resealing		As per condition assessment	$200,000
	Drainage works Roy Jordan Oval	Gillieston Heights		$28,000
	Major playing surface renovation			$30,000
	Provision for Tennis Court Renewal	various	tba	$20,000
	Major Playing Surface Renovation	various	tba	$20,000
	Major playing surface renovation			$40,000
			TOTAL	**$1,697,034**

Document Control	

Document ID: Road Pavement and Road Inventory AMP Jan2010

Rev No	Date	Revision Details	Author	Reviewer	Approver
3	28 Jan 2010	Reformatted into IPWEA NAMS	CMC	CMC	
3.01	30 June 2010	Review of content	CMC	EJ	TBA
3.02	28/2/11	Revaluation data updated	EJ		

TABLE OF CONTENTS

1. EXECUTIVE SUMMARY

What Council Provides

Council provides a Road Network to enable safe and comfortable use for our community.

Asset category	Qty
Road Pavement	630km
Kerb and Gutter	718km
Footpath/Cycleway	173km
Road Inventory Items	Including: Bus Shelter 45, bus stops, lines 170km, Signs 5588, Grail 6km, posts

What does it Cost?

There are two key indicators of cost to provide the road service.

- 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 Council's long term financial plan.

Annual Forecast Maintenance	$4,000,000
Annualised Renewal Program	$6,075,000
Total Annual Cost	**$10,075,000**

These costs do not include backlog works.

Plans for the Future

Council plans to operate and maintain the Road network to achieve the following strategic objectives.

1. Ensure the road network is maintained at a safe and functional standard as set out in this asset management plan.
2. Ensure the road works are up to date with the current road standards as set out in this asset management plan.
3. Ensure the Road network meets the demand of future growth as set out in this asset management plan and development plans.

Measuring our Performance

Quality
Road assets will be maintained in a reasonably usable condition. 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, as set out in the Road Risk Management Procedures 2009.

Function
Our intent is that an appropriate road network is maintained in partnership with other levels of government and stakeholders to provide and adequate and safe road network.

Road asset attributes will be maintained at a safe level and associated signage and equipment be provided as needed to ensure public safety. We need to ensure key functional objectives are met:

- Future Demand
- Future Road Loading Standards

Safety
We inspect all roads 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 asset management plan are:

- Continue Formal Routine Inspections
- Community Survey of satisfaction of road service levels
- Review demand growth areas & S94 Contribution Plans

2. INTRODUCTION

2.1 Background

This asset management plan is to demonstrate responsive management of assets (and services provided from assets), compliance with regulatory requirements, and to communicate funding required to provide the required levels of service.

The asset management plan is to be read with the following associated planning documents:

- Maitland 2021 Community Strategic Plan 2011
- Maitland Delivery Program 2011
- Asset Management Policy 2011
- Asset Management Strategy 2011
- Council Policy Manual
- Ten Year Finance and Revenue Plans
- Road Risk Management Procedures
- Manual of Engineering Standards
- Customer Service Manuals
- LEP and DCP
- Stormwater Asset Manuals

This asset management plan covers the following infrastructure assets:

- Local Road Network
- Regional Road Network

Table 2.1. Assets covered by this Plan

Asset category	Dimension	Replacement Value ($M)
Road Pavement	630km	357.8
Kerb and Gutter	Concrete 718km	46.3
Footpath/Cycleway	173km	31.6
Road Inventory	Bus Shelter 45, bus stops, lines 170km, Signs 5588, Grail 6km, posts	20.9
TOTAL		**$445.9M**

Key stakeholders in the preparation and implementation of this asset management plan are:

General Community	User safety, work request and satisfaction
Asset Infrastructure and Planning	Planning, design and control
City Works and Services	Provision of services
Developers	Compliance and contribution

2.2 Goals and Objectives of Asset Management

The Council exists to provide services to its community. Some of these services are provided by infrastructure assets. Council has acquired infrastructure assets by 'purchase', by contract, construction by council staff and by donation of assets constructed by developers and others to meet increased levels of service.

Council'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 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,
- Sustainable use of physical resources,
- Continuous improvement in asset management practices.[1]

2.3 Plan Framework

Key elements of the plan are

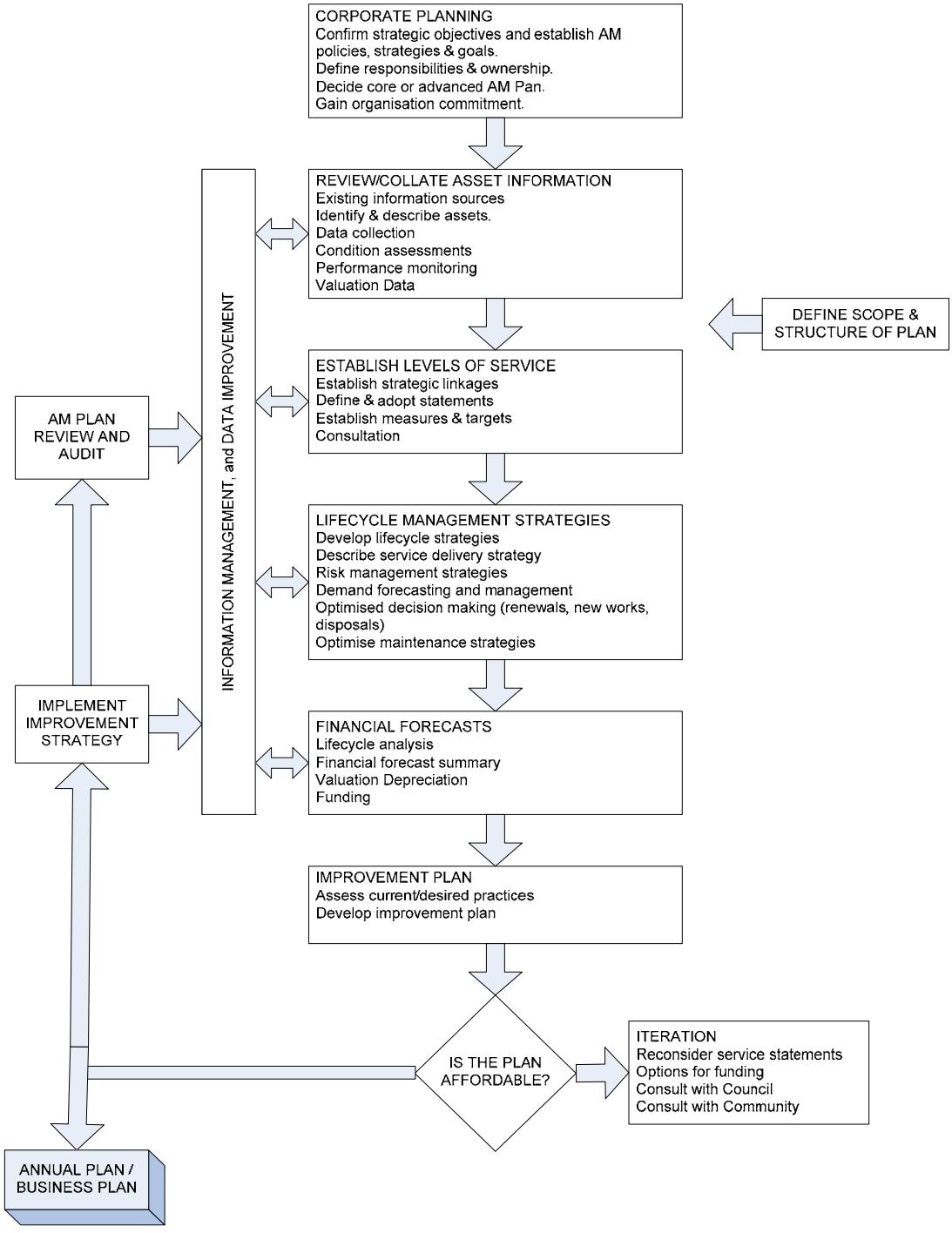
- Levels of service – specifies the services and levels of service to be provided by council.
- Future demand – how this will impact on future service delivery and how this is to be met.
- Life cycle management – how Council will manage its existing and future assets to provide the required services
- 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 Council's objectives.
- Asset management improvement plan

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

[1] IIMM 2006 Sec 1.1.3, p 1.3

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 an 'advanced' asset management plan for road pavement and 'core' asset management for road inventory in accordance with the International Infrastructure Management Manual. It is prepared to meet 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 'network' level. This approach has been used on some sub asset categories.

Future revisions of this asset management plan will move towards an '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 as achieved by using a pavement management system.

3. LEVELS OF SERVICE

Council has defined service levels in two terms. Community levels of service and technical level of service.

Community Levels of Service relate to how the community receives the service in terms that may include safety, quality, quantity, reliability, responsiveness, cost/efficiency and legislative compliance.

Council in the past has conducted Local Government Customer Satisfaction survey. These surveys poll a sample of residents on their level of satisfaction with Council's services. Recent customer satisfaction survey reported satisfaction levels for the following services

Table 3.1. Community ranking of area of most concern

Performance Measure	Most of Concern				
	2006	**2005**	**2004**	**2003**	**2002**
Community Priority Ranking for Road Safety	Rank 1	Rank 3	Rank 5	Rank 4	Rank 4
Community Priority Ranking for Road Maintenance	Rank 4	Rank 1	Rank 4	Rank 1	Rank 5

Over the surveyed period the results indicate that road condition and safety is usually in the top 5 of community concern. Typically roads are used by most residents on a regular basis and therefore are a service that Council is frequently judged upon. The road network is in good condition, however it only takes the memory of a few poor road sections that adversely influences the perception of condition.

While community perception is of high importance, other objective road health measures are needed to determine the actual level of service being delivered.

Supporting the community service levels are operational or technical measures of performance developed to ensure that the minimum community levels of service are met. These technical measures relate to service criteria such as:

Service Criteria	Technical measures relate to
Quality	Pavement Condition Indexes
Request/Defect	Number of outstanding maintenance works
Safety	Number of injury and/or accidents

Council uses both community and technical service level measures in developing the Rolling Works Program component of the annual Management Plan of Council.

3.2 Legislative Requirements

Council has to meet many legislative requirements including Australian and State legislation and State regulations. These include:

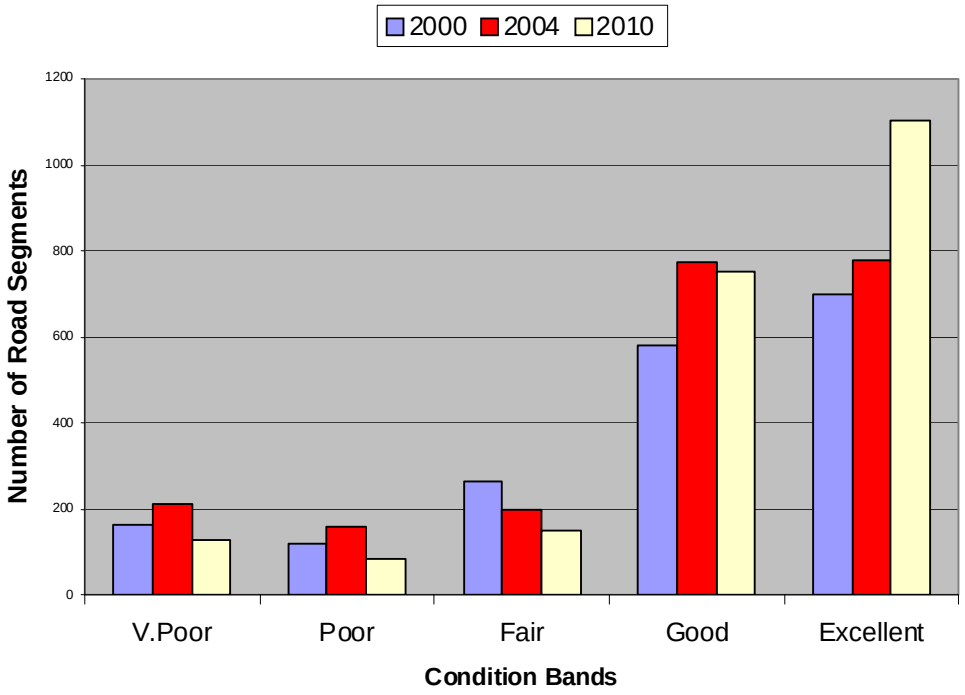
Table 3.2. Legislative Requirements

Legislation	Requirement
Local Government Act	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.
Roads Act	Sets out role, purpose, responsibilities and powers with respect to roads.
Environmental Legislation	Responsible measures to protect environmental issues
OHS	Sets out responsibility to provide a safe and healthy workplace

3.3 Current Levels of Service

Current Pavement Quality from advance modelling using a Pavement Management System:The graph below shows the overall network condition in bands from very poor to excellent. While the average pavement condition index is around 7 out of 10 and is quite acceptable, there has been no real improvement in the number of road sections cycling in the poor condition band. On averaging the condition index, the road network is in good condition and represents a primary service level measure.

Past 10 years Snapshot (Actual) - Pavement Condition Summary



Graph interpretation suggests that:

1. The historic funding level as derived from the first 10-year plan has kept the network in a steady condition. However, with a high network growth and prolonged wet weather deterioration need to be carefully monitored.
2. There is a backlog of works, represented in the poor and very poor bands.

3. Additional funding is required to actually improve the network. Community expectation relating to road standard increases over time and construction costs has increased by 30% above CPI in the last five years, according to BIS Shrapnel (2008).

Road inventory service level:

Road Inventory items are inspected on regular bases. Maintenance is generated from customer request and inspections. This ensures that any high hazard defects are treated as soon as possible. While there is a reactive component customer request is effective.

The road capital works programs renew inventory items. Over a quarter of the road allocation will renew items such as kerb and gutter, Linemarking and signs. (Especially in the reseal and rehabilitation program areas)

Generally the measures of service level for road inventory items are:

1. The ration of current value to replacement value – approximately “6 out of 10”

2. The number of customer request receive per year – slight increasing trend

3. The number of accidents reported - stable

As formulated in Councils Annual Report and reaffirmed using the SMEC PMS, the funding required to lift road pavements and inventory to a satisfactory condition is in the order of $45 Million. (Does not include improving the road standard)

3.4 Desired Levels of Service Options

Option	Service Level over 10 years	Funding Level Required	Comments
1	Keep average road condition index above 8 and No. of poor section less than 100	Injection of $45 Mill over 10 years on top of existing funding.	This level has direct financial implications and will be determined by a successful revenue strategy.
2	Keep average road condition index above 7	Indexed to Growth. This is naturally funded by City's growth. CPI & growth rate Increase.	This level has only minor financial implications. But must remain a budgetary policy.
3	Keep average pavement condition index and valuation ratios above 6	Current Funding plus CPI	This level will have implication on the network condition in subsequent years and therefore higher financial implications.

The desired level of service is to improve the overall network condition and related benefits over time. Option 2 is the most pragmatic and the minimum service level given community expectations.

4. FUTURE DEMAND

4.1 Demand Forecast

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

Demand factor trends and impacts on service delivery over the next 10 years are summarised in Table 4.1.

Table 4.1. Demand Factors, Projections and Impact on Services

Demand factor	Present position	Projection	Impact on services
Population	60,000	2026 – 96,000	Increased deterioration on older collector, distributor and arterial roads
Expectation	Smooth, defect free pavement and inventory	Proactive and reaction times improved. Greater consideration of aesthetics & appearances	Construction, road works Standards, Development surveillance & request actions.
Construction Costs	Has increased by 5% above CPI in the last 5 years	Will increase above CPI by 2% over next 5 years.	Reduction in scope of works. Less road sections treated.

4.2 Changes in Technology

Technology changes are forecast to have little effect on the delivery of services covered by this plan. Attention is paid to advances and where appropriate trials and application will be conducted.

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.

CSR & customer communication eg sync of procedures CSR - inspection - determination – priority – efficiency etc.

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

Table 4.3. Demand Management Plan Summary

Service Activity	Demand Management Plan	Priority
Index annual capital and maintenance budget increases with growth rate & construction costs index on top of CPI	Funded from rate revenue in association with growth.	1
CSR Procedures	Continue priority based maintenance effort and increase planned maintenance activity	1
Update works program in development Sec 94 contribution plans	Synchronisation of works such that the Rolling Works program forms part of the MCC contribution required by the Sec 94 plan.(77% Nexus works)	1

Revision Assets costs within Council's 10 Financial Plan.	Ensure realistic lifecycle cost form part of the longer term financial implication and planning	1

4.4 New Assets from Growth

New assets required to meet growth will be acquired from land developments and re-construction needed as a result of growth by developer contribution and Council budgets. Land Developments are managed by Councils development contribution plans (Sec 94) and conditions imposed with development approvals.

Acquiring these new assets will commit council to fund ongoing operations and maintenance costs for the period that the service provided from the assets is required. These future costs are identified and considered in developing forecasts of future operating and maintenance costs. The formation of annual budgets must include a growth rate on top of construction inflationary budget adjustments. It is of high importance that the associated increase in new rate revenue each year contribute to budget increases, both maintenance and renewal.

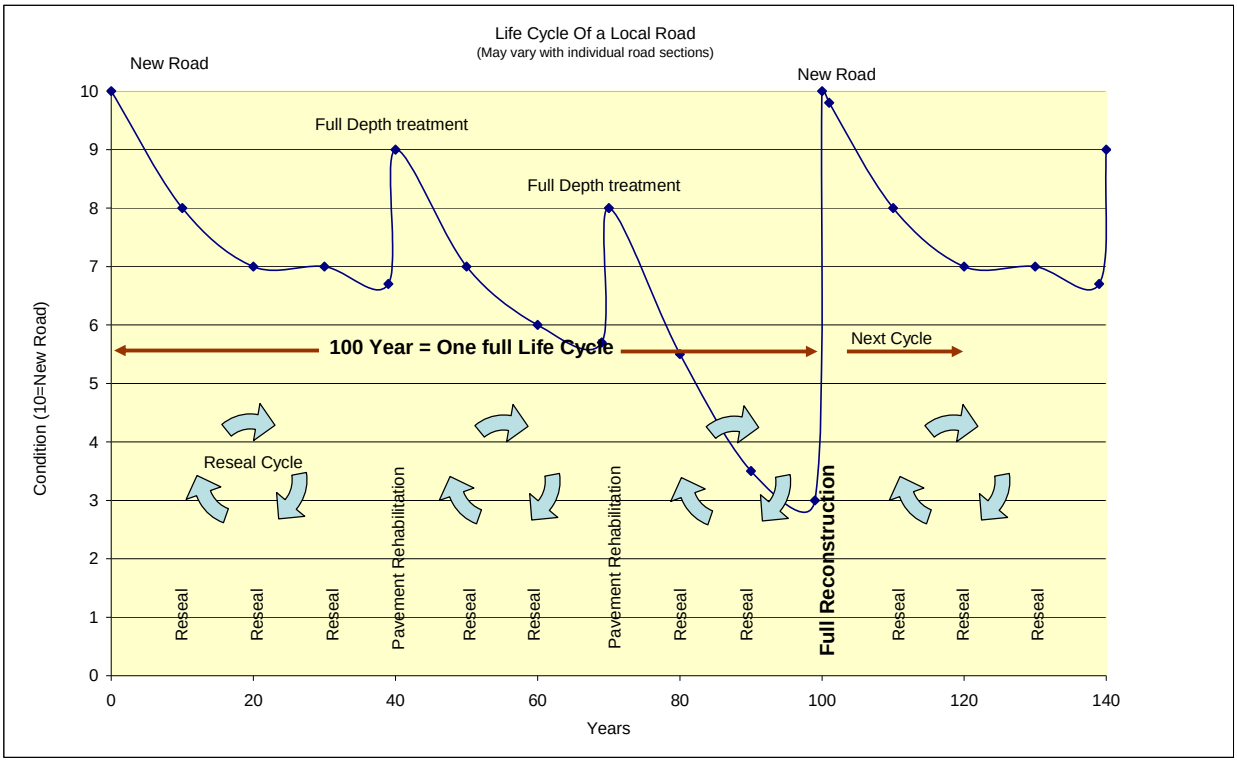
5. LIFECYCLE MANAGEMENT PLAN

The lifecycle management plan details how Council 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

The whole of life cycle from construction to re-construction generally involves a sub cycle of reseal/resurfacing and a sub cycle of in-situ pavement rehabilitation. Eventually the sub cycles cannot achieve life extension and the pavement material will need to be removed and a new pavement installed.

The principle behind the lifecycle of the road pavement asset is generalised in the following diagram:



5.1.2 Asset capacity and performance

Council's services are generally provided to meet design standards where these are reasonable. The application of the ideal standard or adequate standard is a discussion of cost versus benefit and mitigation.

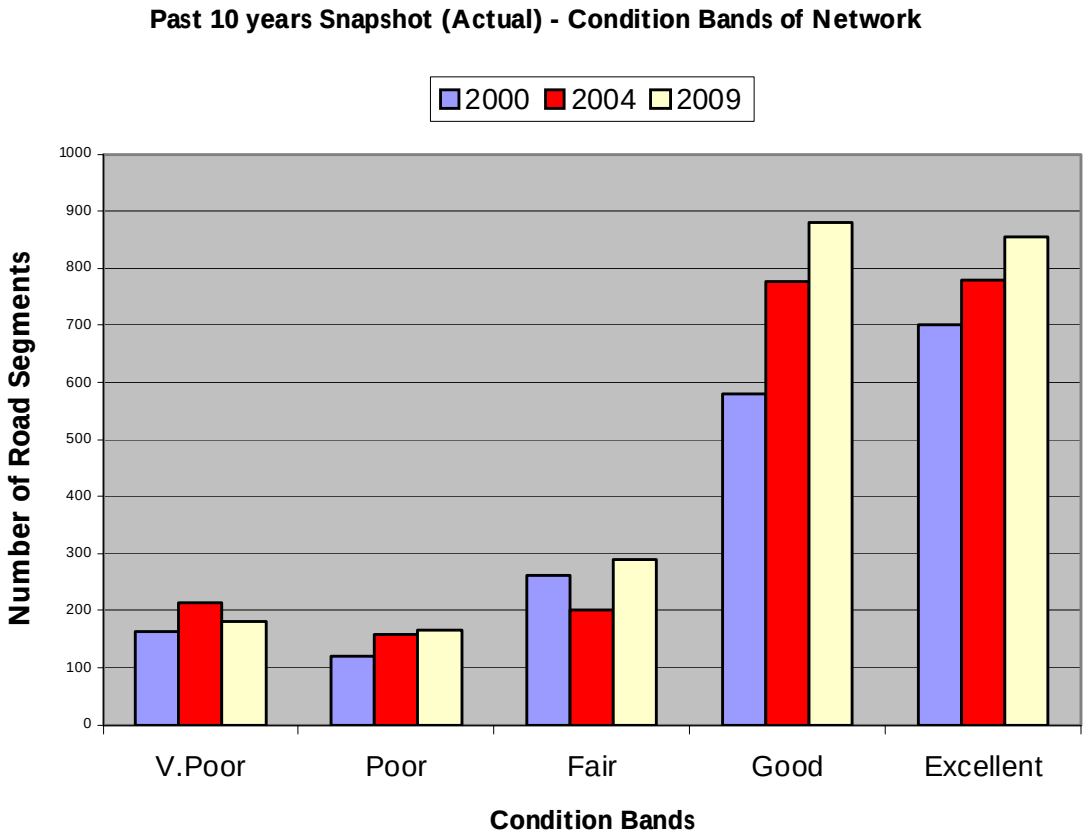
Locations where deficiencies in major roads are known are detailed in Appendix C Road Needs Survey on Collector Roads.

The service deficiencies mainly relate to poor pavements and /or road standards on Collector roads and above. The timing or works must be prioritised by need and risk and forms the Major Road works in the rolling works program of Council's annual Management Plan.

5.1.3 Asset condition

The condition profile of Council's road assets is shown below.

Fig 3. Asset Condition



Condition is measured using a rating system calculated by sophisticated algorithms used in Council's pavement management systems (PMS). This is called the Pavement Condition Index (PCI) and is banded into the following:

Rating	Description of Condition
10	Excellent condition: Only planned maintenance required.
8	Good: Minor maintenance required.
6	Fair: Regular maintenance intervention required.
4	Poor: Significant maintenance intervention required
2 & below	Very Poor: Road requires rehabilitation or re-construction

The amount of road pavement deteriorating into poorer condition is approximately 95,000 square metres every year or about 45 road segments out of 2500 segments. To keep this in check, reconstructions, rehabilitation and reseals need to be funded to approximately $4.5 million per year.

The current condition/backlog of works can also be determined by first principle calculation as detailed below:

From this hierarchy, a simplified status of Council's roads can be defined as follows:
Satisfactory Very good, good and fair (PCI > 5)
Upgrading Required Poor and very poor (failed) (PCI ≤ 5)

As at the end of the 2010/2011 financial year, the following lengths of Council's sealed roads have been considered satisfactory or in need of upgrading – by first principles:

Table 5.1.3a – Condition Status of Maitland Council's Local Road Pavement

Condition	Road Pavement 2007/2008 Overall Condition Based Assessment	Last Financial Year
Satisfactory	81% (457km)	81%
Upgrading required	19% (107km)	19%

Estimate of Upgrading Costs to Bring **Local** Roads up to Satisfactory Condition:

Based on data above, the estimate of upgrading costs to bring roads up to a satisfactory condition with the existing service level is:

1/3 x 107,000m x 8.4m x $59.10per m^2 = $17,700,000 Reconstructions
2/3 x 107,000m x 8.4m x $13.43per m^2 = $ 8,050,000 Rehabilitation
TOTAL $25,750,000

This is based on the following: - Reconstruction of Road Pavement
Excavate 300, gravel, 2 coat seal $50.50/$m^2$
Excavate 300, gravel, 50mm AC $69.90/$m^2$
Average (70%/30% balance + CPI) $59.10/$m^2$
Rehabilitation of Road Pavement +CPI $13.43/$m^2$
One third needing Reconstruction, two thirds rehabilitation

The aim for the overall road network, not just the local roads, is to have 85% in condition rating 3 – 5, and 15% 1 – 2. We are very close to this currently.

For road inventory based on estimated useful life the amount of capital expenditure per year is as follows:

Table 5.1.3b – Condition Status of Maitland Council's Road Inventory

Asset Type	Replacement Required Per Year	Upgrade Required	Cost to bring up to Satisfactory Condition
Linemarking	$250,000	20% require upgrade	$202,000
Footpath/Cycleways	$300,000	5.5km require upgrade	$840,000
Signs	$150,000	838 require upgrade	$167,000
Bus stops	$65,000	13 require upgrade	$175,000
Kerb	$720,000	Approx 10 km require upgrade	$1,204,000
Total	$1,385,000	Total	$2,588,000

Total Cost to bring the road assets to a satisfactory condition is $35.6 Million.

5.1.4 Asset valuations

The value of assets as at 30 June 2010 covered by this asset management plan is summarised below.

Table 5.1.4 – Valuation Status of Maitland Council's Roads

Asset	Current Written Down Value	Current Replacement Value
Road Pavement	$282,402,000	$357,788,000

Table 5.1.4 b– Valuation Status of Maitland Council's Road Inventory

Asset	Current Written Down Value	Current Replacement Value
Footpath/Cycleway	22,459,371	31,595,743
Kerb and Gutter	31,957,420	46,343,353
Lines & Pave Marks	13,000,000	13,705,647
Signs	4,764,580	5,580,000
Bus Shelters	1,450,000	1,575,000
Total Inventory	$73,632,000	$98,799,743

For all roads including inventory assets (Local and regional)

Current Replacement Cost	$456.6M
Depreciable Amount	$410.9M
Depreciated Replacement Cost	$356.0M
Annual Depreciation Expense	$2.9M

5.2 Risk Management Plan and Procedures

An assessment of risks[2] associated with service delivery from infrastructure assets has identified critical risks to Council. The risk assessment process identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, develops a risk rating, evaluates the risk and develops a risk treatment plan for non-acceptable risks. Please see Appendix A

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.

[2] Maitland City Council Road Risk Management Policy and Procedures Attached Appendix A

5.3.1 Maintenance plan – Risk Management Procedures

Maintenance includes reactive, planned and cyclic maintenance work activities and is largely dictated by the Maitland City Council Road Risk Management Policy and Procedures Attached Appendix A

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. Council uses a MMS for maintenance activities and includes regular monthly meetings to synchronise priorities that originate for customer requests and from formal inspections.

Cyclic maintenance is replacement of higher value components/sub-components of assets that is undertaken on a regular cycle including heavy patching, vegetation control etc. This work generally falls under planned maintenance and to some extent resealing capital works for the road network asset.

Maintenance expenditure levels have not been deemed either adequate or inadequate to meet required service levels due to CSR led priority. However the condition of the road is generally of high concern for the community. Future revision of this asset management plan will include links to required maintenance expenditures with required service levels.

Assessment and prioritisation of reactive maintenance is undertaken by Council staff using experience and judgement. Redefinition of request/defect handling will improve maintenance effectiveness.

5.3.2 Standards and specifications

Maintenance work on major roads is carried out in accordance with MCC and RTA Standards and Specifications. Local road maintenance standards are also defined in the Road Risk Management Procedures 2009.

5.3.3 Summary of future maintenance expenditures

Future maintenance expenditure is a function of growth, industry cost factors, amount of renewal and unexpected events. Annual acquisition of assets must be accountable in budget allocation.

The maintenance required for road pavement and road inventory is determined by the current expenditure level and the cost to keep the current number of maintenance crews active. It has been derived that approximately $2.05 Million is required for the road pavement and $1.05 for road inventory – as a minimum. However this is relatively a subjective estimate and further defect and risk analysis is required. It should be noted that much of the kerb and gutter and Linemarking maintenance is done under the capital rehabilitation and reseal programs.

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

Maintenance is funded from Council's operating budget and grants where available.

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

Assets requiring renewal are identified from estimates of remaining life obtained from the pavement management system and field inspection. 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 and scheduled in future works programmes.

Renewal will be undertaken using 'low-cost' renewal methods where practical. The aim of 'low-cost' renewals is to restore the service potential or future economic benefits of the asset by renewing the assets at a cost less than replacement cost. (E.g. Road Rehabilitation)

Deferred renewal and backlog works, 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 – and holding treatments applied.

Renewals are to be funded from Council's capital works program and grants where available. This is a discussion in Councils Revenue Plan.

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 Council from land development. These assets from growth are considered in Section 4.4.

5.5.1 Selection criteria

New assets and upgrade/expansion of existing assets are identified from various sources such as councillor 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 and scheduled in future works programmes. The priority ranking criteria is detailed below.

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 shown in Section 5.4.2.

New assets and services are to be funded from Council'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 is yet to be defined. 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.

In practical terms the reconstruction process includes the cost of pavement disposal where necessary.

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

Table 6.1 Project Financial Summary

No CPI or Growth Factor applied (applied in Financial Plan)

Asset Category	Budget	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
Roads	Capital	$4,590,000	$4,590,000	$4,590,000	$4,590,000	$4,590,000	$4,590,000	$4,590,000	$4,590,000	$4,590,000	$4,590,000
	Maintenance	$2,050,000	$2,050,000	$2,050,000	$2,050,000	$2,050,000	$2,050,000	$2,050,000	$2,050,000	$2,050,000	$2,050,000
Road Inventory	Capital	$1,385,000	$1,385,000	$1,385,000	$1,385,000	$1,385,000	$1,385,000	$1,385,000	$1,385,000	$1,385,000	$1,385,000
	Maintenance	$1,050,000	$1,050,000	$1,050,000	$1,050,000	$1,050,000	$1,050,000	$1,050,000	$1,050,000	$1,050,000	$1,050,000

With Growth Factor but no CPI

Asset Category	Budget	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
Roads	Capital	$4,590,000	$4,681,800	$4,775,436	$4,870,945	$4,968,364	$5,067,731	$5,169,086	$5,272,467	$5,377,917	$5,485,475
	Maintenance	$2,050,000	$2,091,000	$2,132,820	$2,175,476	$2,218,986	$2,263,366	$2,308,633	$2,354,806	$2,401,902	$2,449,940
Road Inventory	Capital	$1,385,000	$1,412,700	$1,440,954	$1,469,773	$1,499,169	$1,529,152	$1,559,735	$1,590,930	$1,622,748	$1,655,203
	Maintenance	$1,050,000	$1,071,000	$1,092,420	$1,114,268	$1,136,554	$1,159,285	$1,182,471	$1,206,120	$1,230,242	$1,254,847

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). 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.

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 life cycle gap for services covered by this asset management plan is represented in Council's Ten Year Financial Plan. Attached in Appendix D is a benchmarking comparison of expenditure levels.

Medium term – 15 year financial planning period

This asset management plan identifies the estimated maintenance and capital expenditures required to provide an agreed level of service to the community over a 15 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 15 year period to identify any gap. In a core asset management plan, a gap is generally due to increasing asset renewals.

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.

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

6.2 Funding Strategy

Projected expenditure identified in Section 6.1 is to be funded from Council's operating and capital budgets. The funding strategy is detailed in the Council's 10 year long term financial and revenue plan.

Achieving the financial strategy will require will require adherence to the Asset Management Strategy.

7. PLAN IMPROVEMENT AND MONITORING

7.1 Performance Measures

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

- The degree to which the required cashflows identified in this asset management plan are incorporated into council's long term financial plan and Strategic Management;
- The degree to which 1-4 year detailed works programs, budgets, business plans and organisational structures take into account the 'global' works program trends provided by the asset management plan;

7.2 Improvement Plan

The asset management improvement plan generated from this asset management plan is shown in Table 7.2.

Table 7.2 Improvement Plan

Task No	Task	Responsibility	Resources Required	Timeline
1.	Maintenance Expenditure monitoring	AI&P, CW&S	Nil	Annual
2.	Further PMS modelling	AI&P	Nil	Annual
3.	Further Inventory Assets Condition survey	AI&P	Nil	Annual
4.	Unit rate rationalisation for Replacement $	AI&P, CW&S	Nil	Annual
5.	Review asset useful life estimate	AI&P	Nil	Annual
6.	Road Revaluation	AI&P, Finance	TBA	Aug 2010
7.	Increase defect inspections	AI&P	1 EFT	Dec 2010
8.				
9.				
10.				

ABBREVIATIONS

AAAC Average annual asset consumption

AMP Asset management plan

ARI Average recurrence interval

BOD Biochemical (biological) oxygen demand

CRC Current replacement cost

CWMS Community wastewater management systems

DA Depreciable amount

DoH Department of Health

EF Earthworks/formation

IRMP Infrastructure risk management plan

LCC Life Cycle cost

LCE Life cycle expenditure

MMS Maintenance management system

PCI Pavement condition index

RV Residual value

SS Suspended solids

VPH Vehicles per hour

CPI Consumer Price Index (Inflation)

CSR Customer Service Request

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 discretional expenditure, which increases future operating, and maintenance costs, because it increases council'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 discretional 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 council'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 Expenditure 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 is 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 Council, 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 Council 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 Council'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 council. 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 **

REFERENCES

Council Management Plan 2009 – 2010,

Sample Council, 'Annual Plan and Budget.

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

APPENDICES

Appendix A	Risk Management Procedures and Maintenance Response Levels of Service
Appendix B	Required Capital Works in the Short to Medium Term
Appendix C	Road Need Map – Collector Road Capital Works Program and Rural Needs
Appendix D	Benchmarking Report

MCFARLANES ROAD

SWAN REACH ROAD

Road Work

Road

Road Network

Roads of Major Importance
Other Major Roads
Secondary Roads
Local Connecting Roads
Local Roads of Major Importance
Other Local Roads
Tracks / Walkways

Water Bodies

Water

Parks

Recreation
Golf Course

MAITLAND CITY COUNCIL

Scale 1 : 22 500
Printing Date: February 2009

NORTH

MAJOR CONSTRUCTION 1 - 3 YEARS (10/02/2009) = 24 Mill

11.2 ASSET MANAGEMENT POLICY

File No:	**12/1**
Attachments:	**1. Asset Management Policy**
Responsible Officer:	**Chris James - Group Manager Assets and Infrastructure Planning**
Author:	**Chris James - Group Manager Assets and Infrastructure Planning**

EXECUTIVE SUMMARY

Councils Asset Management Strategy is a key component of Maitland 2021. The Integrated Planning and Reporting Guidelines that form part of the Local Government Act state that: "The Asset Management Strategy must include a council endorsed Asset Management Policy."

The corporate asset management policies which form part of the current adopted Asset Management Strategy need to be 'lifted' from the Asset Management Strategy as a formal policy position of Council.

The Asset Management Policy sets the broad framework and direction for undertaking asset management. It translates Councils broad strategic outcomes into a policy framework for the preparation of the asset management strategy and associated objectives, targets, and plans.

This report presents for Councils consideration and approval a policy that sets the broad framework and direction for undertaking Councils asset management planning and implementation.

OFFICER'S RECOMMENDATION

THAT Council adopt the Asset Management Policy 2011 as attached.

COUNCIL RESOLUTION

THAT Council adopt the Asset Management Policy 2011 as attached.

Moved Clr Geoghegan, Seconded Clr Meskauskas

CARRIED

11.2 ASSET MANAGEMENT POLICY

File No:	**12/1**
Attachments:	**1. Asset Management Policy**
Responsible Officer:	**Chris James - Group Manager Assets and Infrastructure Planning**
Author:	**Chris James - Group Manager Assets and Infrastructure Planning**

EXECUTIVE SUMMARY

Councils Asset Management Strategy is a key component of Maitland 2021. The Integrated Planning and Reporting Guidelines that form part of the Local Government Act state that: "The Asset Management Strategy must include a council endorsed Asset Management Policy."

The corporate asset management policies which form part of the current adopted Asset Management Strategy need to be 'lifted' from the Asset Management Strategy as a formal policy position of Council.

The Asset Management Policy sets the broad framework and direction for undertaking asset management. It translates Councils broad strategic outcomes into a policy framework for the preparation of the asset management strategy and associated objectives, targets, and plans.

This report presents for Councils consideration and approval a policy that sets the broad framework and direction for undertaking Councils asset management planning and implementation.

OFFICER'S RECOMMENDATION

THAT Council adopt the Asset Management Policy 2011 as attached.

REPORT

Council is in the process of implementing the NSW Government's Integrated Planning and Reporting legislation culminating in a 10 year community strategic plan, Maitland 2021. A key component of the integrated plan is Councils Asset Management Strategy.

The purpose of this report is to present for Councils consideration and approval an Asset Management Policy that will formalise Councils position on and provide an overarching policy framework for Councils Asset planning.

BACKGROUND

The Integrated Planning and Reporting Guidelines that form part of the *Local Government Act 1993* state that:

The Asset Management Strategy must include a council endorsed Asset Management Policy.

In May 2006, Council adopted an Asset Management Strategy which referenced the asset policies set out in Councils Corporate Plan 2005-2008. These corporate asset management policies which form part of the current Asset Management Strategy are as follows:

- Council supplied infrastructure will be designed, constructed and maintained to ensure that the community's needs for these services are met in an economically sustainable fashion
- Need for clearly defined asset management strategies and plans
- Ensure there is an integrated and multi-disciplined approach to asset maintenance
- Development of long-term financial strategies to ensure the maintenance of existing and new assets is sustainable
- Continued assessment and review of funding levels for routine maintenance programs
- Long term funding and maintenance implications of acquiring new assets.

This diverse list of asset management objectives and statements are very valid and have served to guide Council in its asset management planning, however, they have not been formally adopted in their own right as "adopted policy" of Council. It is appropriate that they now be reviewed and a specific policy adopted by Council.

POLICY REQUIREMENTS

The Asset Management Policy sets the broad framework and direction for undertaking asset management. It translates Councils broad strategic outcomes into a policy framework for the preparation of the asset management strategy and associated objectives, targets, and plans. The policy outlines why and how asset management will be undertaken and defines key principles that underpin asset management for the Council.

The Division of Local Government Planning and Reporting Manual states that a Policy should:

- *establish the goals and objectives for asset management in terms of providing a platform for service delivery*
- *integrate asset management with Councils strategic planning*
- *maximise value for money by adoption of life cycle costing, combined with performance measurement*
- *assign accountability and responsibility for service delivery together with asset management*

- *promote sustainability to protect the needs of future generations.*

ASSET MANAGEMENT POLICY

It has been 5 years since Council adopted its first Asset Management Strategy. The principles that underpin the asset management planning process have not changed nor have the infrastructure issues facing Council. The fundamental change is that Council's corporate planning is undertaken within the Integrated Planning and Reporting Framework.

At its meeting of 22 February 2011, Council adopted its community strategic plan 'Maitland 2021' that provides a framework under which Council will develop and finalise its Delivery Program 2011-15 and annual Operational Plan 2011-12.

Maitland 2021 presents a clearly defined vision and goal for the community with respect to asset management. The proposed asset policy that is the subject of this report reflects and supports Councils new adopted plan and its outcomes and strategies.

The policy contains information on the organisational context and importance of asset management. The importance of asset management policies underpinning strategic goals and informed decision making are emphasised. It addresses areas such as sustainability, service delivery, asset life cycle, responsibilities, and relationships.

CONCLUSION

The policy provides a clear direction for asset management and is an essential component of Councils resourcing strategy. The Asset Management Policy is presented to Council for consideration.

FINANCIAL IMPLICATIONS

This matter has no direct financial impact upon Council's adopted budget or forward estimates.

POLICY IMPLICATIONS

This report recommends the adoption of the Asset Management Policy 2011 which will become Councils adopted policy for implementing consistent asset management decisions throughout the organisation.

STATUTORY IMPLICATIONS

There are no statutory implications under the Local Government Act 1993 with this matter.

ASSET MANAGEMENT POLICY

Version: 1

Business Group:	**Assets & Infrastructure Planning**
Responsible Officer:	**Group Manager Assets & Infrastructure Planning**
Date Approved:	**TBA**
Council Reference:	
Policy Review Date:	**Not less than four (4) years or considered within the first year of each newly elected Council**
File Number:	**12/1**

Policy History

Version	Date Approved	Description of Changes

Objectives

The Asset Management Policy articulates Council's commitment to the responsible management of Council assets. It sets the direction and framework for the management of Council's assets providing clear asset management objectives that will:

- integrate asset management with Council's strategic planning
- ensure there is an integrated and multi-disciplinary approach to asset management
- enable the preparation of Council's asset management strategy and plans
- confirm and reinforce that sound asset management is fundamental to Council's overall service delivery and resource planning
- ensure that Councils services and infrastructure are provided in a sustainable manner with the appropriate levels of service to residents, visitors, and the environment
- enable the development of long-term financial strategies to ensure the acquisition, maintenance, and disposal of assets is sustainable
- ensure that the community's priorities and vision are an integral part of the asset management planning process
- create an environment where all Council employees have an integral role in the overall management of Council's assets by creating and sustaining Asset Management awareness throughout the Council
- maximise value for money spent through a 'whole of life cost' approach to asset management together with integrated performance measurement and improvement of asset management practices.

Scope

This policy applies to all physical assets owned or controlled by Council, assets which are critical to Council's service delivery, and assets which are incorporated in the Community Strategic Plan and Delivery Program.

Relevant Legislation

***Local Government 1993* Section 403 Resourcing Strategy** requires:

(1) A council must have a long-term strategy (called its "resourcing strategy") for the provision of the resources required to implement the strategies established by the community strategic plan that the council is responsible for;
(2) The resourcing strategy is to include long-term financial planning, workforce management planning, and asset management planning.

Under **Section 406 of the *Local Government Act 1993***, Councils are required to comply with the Integrated Planning and Reporting Guidelines. The guidelines state in part that:

- each Council must prepare an Asset Management Strategy and Asset Management Plan/s to support the Community Strategic Plan and Delivery Program
- the Asset Management Strategy must include a Council endorsed Asset Management Policy.

The ***Local Government Act 1993*** provides a set of principles that are to guide Council in the carrying out of its functions. The charter specifically addresses asset management by stating in part that a Council is:

- to have regard to the long term and cumulative effects of its decisions

- to bear in mind that it is the custodian and trustee of public assets and to effectively plan for, account for and manage the assets for which it is responsible
- to engage in long-term strategic planning on behalf of the local community.

Related Policies/Procedures/Protocols

Community Strategic Plan 'Maitland 2021' adopted 22 February 2011
Maitland City Council Asset Management Strategy adopted May 2006, and as reviewed.

Definitions

Asset is a physical component of a facility which has value and enables services to be provided. For the purposes of this policy Council 'assets' include but are not limited to:

- Buildings
- Roads and associated infrastructure including footpaths, kerb & gutter, bridges, and car parks
- Land
- Stormwater infrastructure & drainage
- Recreation facilities such as pools, playgrounds, sportsfields, and parks
- Plant and equipment
- Waste facilities and works depots.

Asset Management is 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.

Asset Management Strategy is a strategy for asset management covering the development and implementation of plans and programs for asset creation, operation, maintenance, rehabilitation/replacement, disposal, and performance monitoring to ensure that the desired level of service and other operational objectives are achieved at optimum cost.

Community Strategic Plan – ***Maitland 2021***, the City of Maitland 10 Year Community Strategic Plan is Council's highest level plan that identifies the community's priorities and aspirations for the future and the plan strategies for achieving these goals.

Policy Statement

The management of Council assets is a key function of Council. Assets are vital in the provision of a range of services for the community in areas like recreation and leisure, planning and development, roads and transport, waste management, culture and education, and environmental management. The successful delivery of these services relies on providing and managing a broad range of assets.

In order to realise this, Council is committed to the following principles:

- Asset management strategy and planning will align with the vision and objectives of the Community Strategic Plan Maitland 2021

- Asset planning will recognise and reflect the infrastructure needs of our growing community

- Strategic asset management underpins the delivery of the priorities, aspirations, and desired outcomes identified in the Community Strategic Plan Maitland 2021.

- Active community engagement will be sought as a part of performance measurement of service delivery and establishment of new service levels

- That a strategic and systematic approach to asset management that embraces industry standards and best practice will be applied throughout Council

- Asset management planning will be integrated with other Council policies, strategies, and procedures

- Asset Management Strategy and Asset Management Plans will be prepared to support the Community Strategic Plan and Delivery Program

- Council supplied infrastructure will be designed, constructed, and maintained to ensure that the community's needs for these services are met in an economically sustainable fashion

- Asset management practices will adhere to the underlying key principles of whole of life costing, performance measurement, and risk management. Life cycle costs will be considered in all decisions relating to new services and assets as well as upgrading existing services and assets

- Assets will be optimally managed in accordance with the Asset Management Strategy and Plans to ensure they continue to function as built for the duration of their life and minimise Councils exposure to risk in regard to asset failure

- All relevant legislative requirements together with environmental, social, economic, and governance standards will to be taken into account in asset management

- Funding for all asset purchases, maintenance, rehabilitation, and replacement shall be guided by Councils Asset Management Plans and included in the Annual Operational Plan, 4 Year Delivery Program, and Long Term financial Plan

- Assets will be accounted for in accordance with the requirements of the appropriate accounting standards and reporting requirements

- Council's asset management capabilities will be improved through necessary advances in technology, systems and processes and training

- Annual review mechanism to monitor improvements in Councils asset management capabilities

- Assets must be assigned to an asset manager who will be responsible for managing the assets in accordance with this Policy, Council's adopted Asset Management Strategy, and related Asset Management Plans

ASSET MANAGEMENT POLICY

Version: 1

Business Group:	Assets & Infrastructure Planning
Responsible Officer:	Group Manager Assets & Infrastructure Planning
Date Approved:	8 March 2011
Council Reference:	Ordinary Council Meeting 8/3/2011 – Item 11.2
Policy Review Date:	Not less than four (4) years or considered within the first year of each newly elected Council
File Number:	12/1

Policy History

Version	Date Approved	Description of Changes
1	8 March 2011	New policy adopted.

Objectives

The Asset Management Policy articulates Council's commitment to the responsible management of Council assets. It sets the direction and framework for the management of Council's assets providing clear asset management objectives that will:

- integrate asset management with Council's strategic planning
- ensure there is an integrated and multi-disciplinary approach to asset management
- enable the preparation of Council's asset management strategy and plans
- confirm and reinforce that sound asset management is fundamental to Council's overall service delivery and resource planning
- ensure that Councils services and infrastructure are provided in a sustainable manner with the appropriate levels of service to residents, visitors, and the environment
- enable the development of long-term financial strategies to ensure the acquisition, maintenance, and disposal of assets is sustainable
- ensure that the community's priorities and vision are an integral part of the asset management planning process
- create an environment where all Council employees have an integral role in the overall management of Council's assets by creating and sustaining Asset Management awareness throughout the Council
- maximise value for money spent through a 'whole of life cost' approach to asset management together with integrated performance measurement and improvement of asset management practices.

Scope

This policy applies to all physical assets owned or controlled by Council, assets which are critical to Council's service delivery, and assets which are incorporated in the Community Strategic Plan and Delivery Program.

Relevant Legislation

***Local Government 1993* Section 403 Resourcing Strategy** requires:

(1) A council must have a long-term strategy (called its "resourcing strategy") for the provision of the resources required to implement the strategies established by the community strategic plan that the council is responsible for;
(2) The resourcing strategy is to include long-term financial planning, workforce management planning, and asset management planning.

Under **Section 406 of the *Local Government Act 1993***, Councils are required to comply with the Integrated Planning and Reporting Guidelines. The guidelines state in part that:

- each Council must prepare an Asset Management Strategy and Asset Management Plan/s to support the Community Strategic Plan and Delivery Program
- the Asset Management Strategy must include a Council endorsed Asset Management Policy.

The ***Local Government Act 1993*** provides a set of principles that are to guide Council in the carrying out of its functions. The charter specifically addresses asset management by stating in part that a Council is:

- to have regard to the long term and cumulative effects of its decisions

- to bear in mind that it is the custodian and trustee of public assets and to effectively plan for, account for and manage the assets for which it is responsible
- to engage in long-term strategic planning on behalf of the local community.

Related Policies/Procedures/Protocols

Community Strategic Plan 'Maitland 2021' adopted 22 February 2011
Maitland City Council Asset Management Strategy adopted May 2006, and as reviewed.

Definitions

Asset is a physical component of a facility which has value and enables services to be provided. For the purposes of this policy Council 'assets' include but are not limited to:

- Buildings
- Roads and associated infrastructure including footpaths, kerb & gutter, bridges, and car parks
- Land
- Stormwater infrastructure & drainage
- Recreation facilities such as pools, playgrounds, sportsfields, and parks
- Plant and equipment
- Waste facilities and works depots.

Asset Management is 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.

Asset Management Strategy is a strategy for asset management covering the development and implementation of plans and programs for asset creation, operation, maintenance, rehabilitation/replacement, disposal, and performance monitoring to ensure that the desired level of service and other operational objectives are achieved at optimum cost.

Community Strategic Plan – ***Maitland 2021***, the City of Maitland 10 Year Community Strategic Plan is Council's highest level plan that identifies the community's priorities and aspirations for the future and the plan strategies for achieving these goals.

Policy Statement

The management of Council assets is a key function of Council. Assets are vital in the provision of a range of services for the community in areas like recreation and leisure, planning and development, roads and transport, waste management, culture and education, and environmental management. The successful delivery of these services relies on providing and managing a broad range of assets.

In order to realise this, Council is committed to the following principles:

- Asset management strategy and planning will align with the vision and objectives of the Community Strategic Plan Maitland 2021

- Asset planning will recognise and reflect the infrastructure needs of our growing community

- Strategic asset management underpins the delivery of the priorities, aspirations, and desired outcomes identified in the Community Strategic Plan Maitland 2021.

- Active community engagement will be sought as a part of performance measurement of service delivery and establishment of new service levels

- That a strategic and systematic approach to asset management that embraces industry standards and best practice will be applied throughout Council

- Asset management planning will be integrated with other Council policies, strategies, and procedures

- Asset Management Strategy and Asset Management Plans will be prepared to support the Community Strategic Plan and Delivery Program

- Council supplied infrastructure will be designed, constructed, and maintained to ensure that the community's needs for these services are met in an economically sustainable fashion

- Asset management practices will adhere to the underlying key principles of whole of life costing, performance measurement, and risk management. Life cycle costs will be considered in all decisions relating to new services and assets as well as upgrading existing services and assets

- Assets will be optimally managed in accordance with the Asset Management Strategy and Plans to ensure they continue to function as built for the duration of their life and minimise Councils exposure to risk in regard to asset failure

- All relevant legislative requirements together with environmental, social, economic, and governance standards will to be taken into account in asset management

- Funding for all asset purchases, maintenance, rehabilitation, and replacement shall be guided by Councils Asset Management Plans and included in the Annual Operational Plan, 4 Year Delivery Program, and Long Term financial Plan

- Assets will be accounted for in accordance with the requirements of the appropriate accounting standards and reporting requirements

- Council's asset management capabilities will be improved through necessary advances in technology, systems and processes and training

- Annual review mechanism to monitor improvements in Councils asset management capabilities

- Assets must be assigned to an asset manager who will be responsible for managing the assets in accordance with this Policy, Council's adopted Asset Management Strategy, and related Asset Management Plans