TWEED SHIRE COUNCIL

Plant and Fleet Asset Management Plan

December 2010

Adopted by Council at its meeting on Tuesday 21 June 2011

Minute No: 371

Version Control

This Document is a live Council document and is subject to periodic review. The validity and currency of the document is critical in applying its content as it contains significant asset management and performance data that is “real-time” based.

If you are reading this document please check the version date and the endorsement date below to make sure that the document is current.

Version	Version Month	Year	Endorsed Date	Status
V1.1	November	2009		Draft for Internal Comment
V1.2.1	January	2010		Draft Final
V1.2.2	December	2010		Final
V1.2.3	December	2010		Final updated for CSP

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1. Executive Summary

1.2 Purpose of the Plan

The fundamental purpose of this Fleet Asset Management Plan (FAMP) is to improve Council's long-term strategic management of its Plant and Fleet assets in order to service the needs of Tweed Shire Council's operations in the future, in accordance with Council's key strategic documents and demonstrate reasonable management in the context of Council's available financial and human resources.

The FAMP achieves this by setting standards, service levels and programmes which Council will develop and deliver. The standards and service levels have been set in accordance with user needs, regulations, industry practice and legislative codes of practice.

1.2 Assets Description

In all, this FAMP covers 1,052 separate pieces of Plant and Fleet, categorised into various classes and they are identified as per the table below.

Plant & Fleet Type	No
Sedans up to 2 Litres 4 Cyl	34
Hybird Vehicles	2
Sedans Between 2 to 3 Litres 4 Cyl	1
Sedans Between 2.5 to 4.0 Litres	4
Station Wagon up to 2 Litres 4 Cyl	26
Station Wagon Between 2 to 3 Litres 4 cyl	1
Station Wagon Between 2.5 to 4 Litres	14
Utilities over 3 litre	8
Busses / Vans All	7
Light Commercial 4x2 (style side) 2,000 to 4,000	15
Light Commercial 4x4 (style side) 2,000 to 4,000	13
Non Plant Items	2
Light Commercials 4x2 (tray back) 2,000 to 4,000 G	40
Light Commercials 4x4 (tray back) 2,000 to 4,000 G	23
Medium Commercials 4x2 4,000 to 8,000 GVM	27
Medium Commercials 4x2 8,000 to 12,000 GVM	29
Heavy Commercials 4x2 12,000 to 20,000 GVM	9
Heavy Commercials 6x4 over 20,000 GVM/GCVM	10
Combination Units (where 2 large units are combine	7

Plant & Fleet Type	No
Cranes All	2
Forklifts All	3
Trailers up to 1,000 GVM	25
Trailers over 1,000 GVM up to 4,000 GVM	25
Trailers over 4,000	4
Trailer Fuel Tankers All	1
Fuel Tank Demountable <1000 LT	2
Graders	4
Loaders over 1 cubic meter under 2 cubic meter	4
Loaders over 2 cubic meters	3
Dozers	1
Excavators up to 15 tonne	2
Excavator over 15 tonne	1
Backhoes All	4
Back Hoes Extended Life	1
Roller Self-propelled up to 10 tonne (Construction	1
Roller Self-propelled over 10 tonne (Construction)	4
Roller Drawn (Construction)	1
Roller all (land care Parks etc)	8
Vibrating Plates (wackers)	11
Rammer	4
Vibrating Needle	5
Sweepers (Large Road type)	2
Sweepers (Small foot path type)	1
Sweeper Tractor Drawn	1
Tractors over 40 Hp under 80 Hp	3
Tractors over 80 Hp	5
Mowers up to 8 Hp	57
Mowers over 10 Hp up to 15 hp	3
Mowers over 15 Hp up to 25 Hp	11
Mowers over 25 Hp up to 40Hp	8
Mowers over 40 Hp	2

Plant & Fleet Type	No
Mowers Tractor Mounted	6
Slashers Tractor Mounted	3
Spreaders (super, lime, fertiliser etc)	1
Edgers (lawn)	16
Tree Chipper	1
Chain Saws All	51
Polesaw	22
Hedge Trimmers All	16
Brush Cutters All	85
Air Blowers / Leaf Suckers	49
Pumps All	29
Concrete Mixers All	2
Concrete Saws All	25
Generators All	47
Air Compressors up to 20 cfm	4
High Pressure Water Units	8
Jack Hammer All	9
Welders All	7
Plasma Cutter	1
Motor Bikes All	1
Caravans All	6
Boats All	9
Out Board Motors All	5
Power tools Electrical	2
Miscellaneous Plant or Equipment (small)	69
Traffic Control Units	1
Radio Communication Units	5
Bush Fire Units & SES	27
Survey Equipment	10
Fuel Amenities	4
Mowers Cylinder	5
Drive Units All	18

Plant & Fleet Type	No
All Wheel Drives Under 2.5 litres	25
Depot Fuel Delivery Systems	2

The following table documents the Plant and Fleet assets as at 30 June 2009[1].

	Fair Value	Accumulated Depreciation	Written Down Value
	$37,934,000	$17,287,000	$20,647,000
Total	**$37,934,000**	**$17,287,000**	**$20,647,000**

As at 30 June 2009, the Annual Depreciation (annual asset consumption) for Plant and Fleet assets was calculated at $2,692 million.

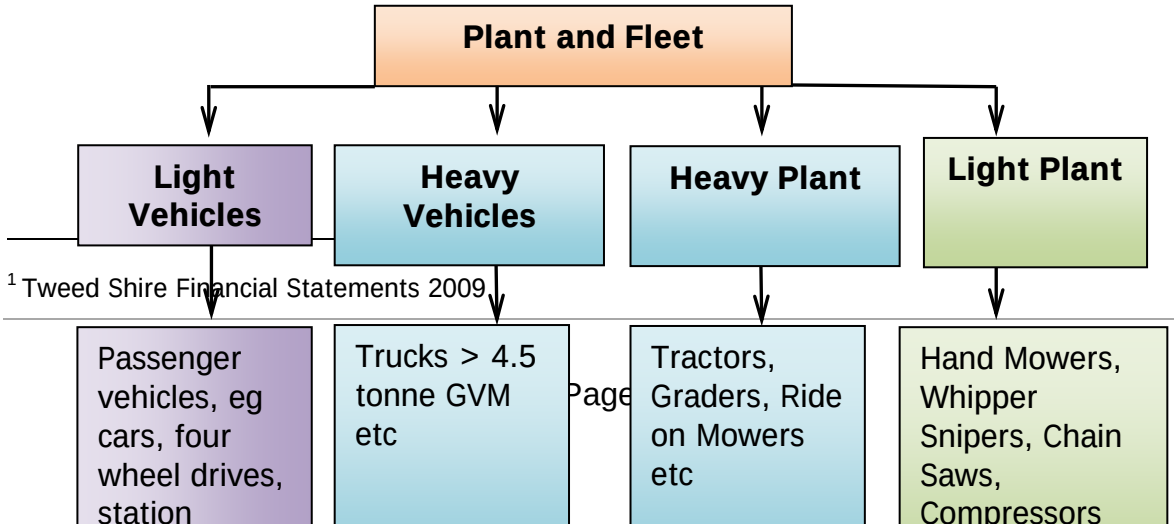
1.3 Levels of Service

Levels of Service define the assets performance targets, in relation to reliability, quantity, quality, responsiveness, safety, capacity, environmental impacts, comfort, cost/affordability and legislative compliance.

A key objective of this FAMP has been to match the level of service provided by Council's Plant and Fleet assets, to the expectations of the users (i.e Council Staff) within available resources. This requires a clear understanding of the user needs, expectations and preferences.

To achieve and sustain acceptable standards of service for Council's Plant and Fleet assets requires an annual commitment of funds. These funds provide for regular and responsive maintenance and for timely renewal or replacement of the asset. The provision of adequate financial resources ensures that the Plant and Fleet assets are appropriately managed and preserved. Financial provisions below requirements impacts directly on the service delivered and if prolonged, results in substantial needs for "catch up" expenditure imposed on ratepayers in the future.

No Authority can deliver everything, all the time. In fact, in line with good practice and affordable service delivery, it may not be practical or cost-effective to deliver the same level of service across the entire asset portfolio. Therefore Tweed Shire has documented a Plant and Fleet asset hierarchy that classifies the Plant and Fleet portfolio / network into appropriate groups based on the appropriate levels of service as per the following diagram.



[1] Tweed Shire Financial Statements 2009

In accordance with the International Infrastructure Management Manual, Council acknowledges that the primary purpose of an asset hierarchy is to ensure that appropriate management, engineering standards and planning practices are applied to the asset based on its function. It also enables more efficient use of limited resources by allocating funding to those assets that are in greater need and the costs are better justified.

Without an adequate Plant and Fleet hierarchy, there may be inefficient allocation of resources, user expectations may vary and the scheduling of Plant and Fleet works and priorities made more difficult.

1.4 What are Council's Current Levels of Service being delivered?

Tweed Shire Council has defined two tiers of levels of service:

The first being '**Strategic Levels of Service**' – what Council expects to provide in terms of key customer outcomes:

- Appropriateness of service.
- Accessibility to users 24 hours a day, 7 days a week.
- Affordability – acknowledging that Council can only deliver what it can afford.
- Relevance of the service being provided – in terms of demand characteristics, future demographics, current back-logs and where the pressure points are.

The second being '**Operational Levels of Service**'

- What Council will do in real terms, i.e. reliability, functionality and adequacy of the services provided. Typically, this FAMP has documented Council's standards – i.e. at what point will Council repair, renew or upgrade to meet the customer outcomes listed in the strategic levels.
- Operational levels of service are also referred within Council as Technical Levels of Service and have been defined for each of the following:
  - **New Asset** – If Council provides new Plant and Fleet assets, then what design / specification and maintainability standards shall apply to make them meet Council's strategic outcomes.
  - **Upgraded Asset to original standard** - If Council upgrades any of its Plant and Fleet, what design / specification and maintainability standards shall apply to make them meet Council's strategic outcomes.

- **Maintenance** – When will Council intervene with a maintenance repair and what will be Council's responsiveness in terms of client requests for maintenance faults.

The current Levels of Service (LoS) have been developed through internal consultation to represent the existing practices. This is based on the currently understanding of the drivers against measurable performance indicators. As this FAMP is reviewed and becomes further sophisticated the LoS will be developed in consultation with the customers.

1.4.1 Strategic Levels of Service

Tweed Council's Strategic Levels of Service that have been adopted as a result of this FAMP are tabulated in the table below as:

Service Criteria	What will Council do?	Performance Standard / Measure
Community		
Quality	Well maintained Plant and Fleet in a safe and operational condition	<200 breakdowns per annum
Customer Satisfaction	Plant and Fleet assets meet client needs	>60% customer survey satisfaction
Technical		
Condition	Provide timely preventative maintenance servicing	Asset downtime to be kept to a minimum, with assets being operational 90% of the time. Maintenance schedules programmed as per Manufacturer's specification.
Programmed Replacement	Assets replaced within nominated timeframes and budgets.	Reduce Life Cycle asset costs and renewal gaps in future. Optimal renewal of assets is achieved.

1.4.2 Capital Levels of Service – New Assets, Reconstructed Assets, Upgraded Assets

The purchase of new Plant and Fleet assets will always be provided in accordance with:

- Council's requirements with regards to the asset being fit for purpose and fit for use;
- An awareness of the past failures of various assets to ensure correct equipment availability and purchase; and
- Relevant Australian Standards / Specifications.

1.4.3 Maintenance Levels of Service

For the Levels of Service delivered on a day to day nature (i.e. responding to requests for maintenance faults and responding to breakdowns), Council has a proactive and preventative maintenance schedule for all Plant and Fleet assets.

The assets are scheduled for service during the optimal time so as to minimise inconvenience to the staff that use the assets to perform their duties and these schedules are programmed in Councils' Asset Management System.

Council has developed internal Inspection and Service Lists and a Daily Plant Sheet Check List taking into account the Manufacturer's or Industry recommended guidelines

These internal procedures and check lists document what the Mechanical Staff should do as follows:

1. The task or work expected to be undertaken, e.g. change oil, check spark plugs.
2. The quantity of work expected to be undertaken (workload indicators), e.g. 4litres of oil, 1 fan belt.
3. The schedule of inspections to be undertaken of specified matters at specified intervals;
4. The circumstances under which intervention action is to be taken with respect to repair or maintenance needs for defects reported or found on inspection;

With regards to unscheduled maintenance activities, Council's Fleet Administration section attends to these in priority order taking into account the risks associated with the defect and the situation.

Such unscheduled maintenance activities include the following:

- Flat Tyre;
- Plant / Fleet engine breakdown; and
- Vandalism;

In terms of response times to these activities, Council assesses and prioritises to respond by either attending or repairing the defect within a reasonable time.

Typically these unscheduled maintenance activities are responded to within 4 to 24 hours depending on parts and staff availability to minimise downtime.

In situations where the Mechanical Staff cannot assist or attend to these situations, Council utilises the services of Roadside Assist for passenger vehicles only.

Responsibility for immediate dangerous situations with respect to Plant and Fleet is initially assessed or undertaken by Councils mechanical staff.

This FAMP acknowledges the importance of understanding and monitoring the linkage between workload indicators and intervention actions. A substantial increase in the overall number of Plant and Fleet assets within Council's portfolio which will need to be maintained can materially impact upon intervention action (and customer satisfaction and duty of care requirements) if not accompanied by a comparable increase in budget allocation or productivity improvement.

Given the outcomes of the internal review with respect to Council's Plant and Fleet maintenance services, the standards of maintenance detailed in this FAMP are considered reasonable and meeting organisation's expectations in the context of responsible and reasonable Plant and Fleet management.

1.5 Future Demand

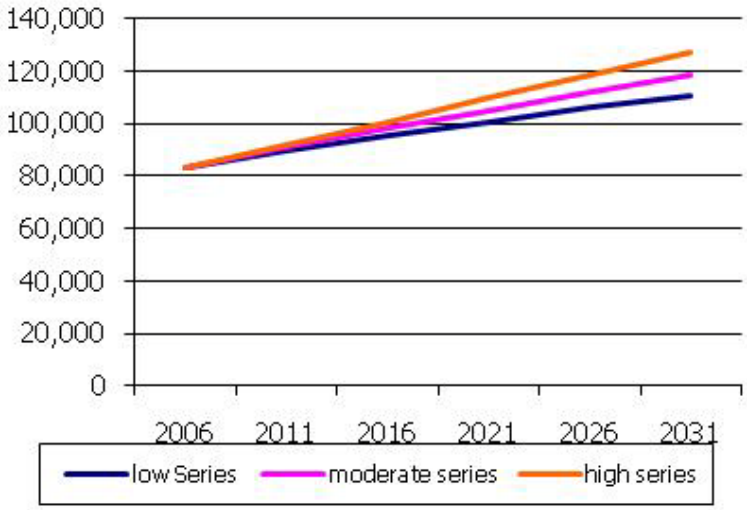
Statistical information from Australian Bureau of Statistics in March 2008 confirms that The Tweed is experiencing and will continue to experience growth.

Tweed Shire is home to an estimated 82,955 people (Australian Bureau of Statistics (ABS) 2006), this is an increase of 10.34% from the 74,380 residents which were living in Tweed in 2001.

The following table illustrates that substantial population increase is expected to occur in the Tweed LGA up to 2031. This is in line with recent population trends in the Shire which has seen it grow at an average annual rate of 2.1%, compared to the NSW average of 0.7%. Tweed Heads continues to grow at the fastest rate of all the Shire's planning districts.

The total population is projected to grow from a 2001 base of 74,590 people past the 2006 figure of 82,955 to 90,870 by 2011. This growth is not expected to occur evenly across the age groups, with relatively little growth anticipated in the younger age groups, especially those under 15 years of age.

This projected population profile reflects the socio-demographic changes which have resulted in middle to older age groups undertaking a sea change. This movement to the Shire up and out from the rest of NSW, as well as the movement of people down from South East Queensland, along with improved access to the Shire facilitated by upgrading of the Pacific Highway, is expected to result in the continuation of the rapid growth rate over the next two decades.



1.5.1 Current Issues Influencing Service Demand

In the absence of comprehensive service strategies, population trends can be used as a guide to ascertain future demand.

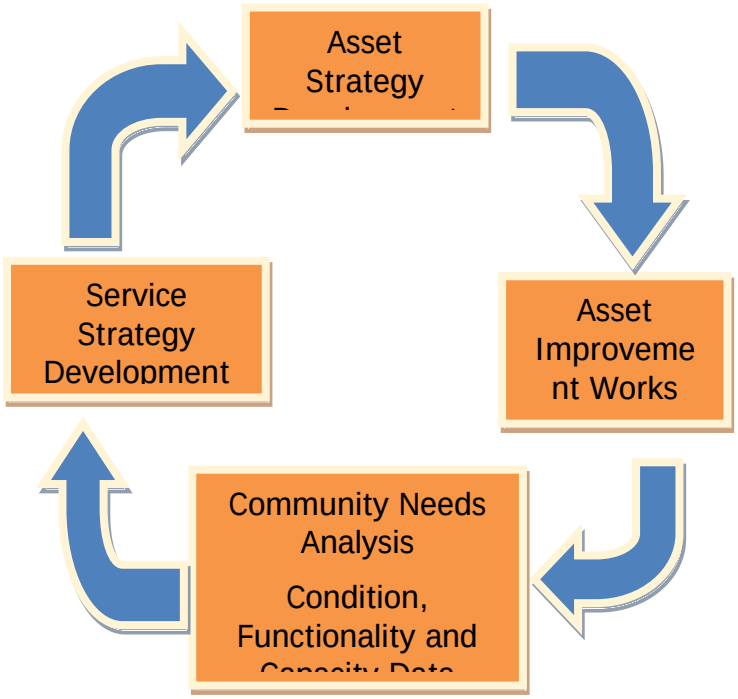
Age Group	Population 2001	Forecast Population 2031	Forecast Population Change
Whole population	74,590	133,390	44%
0 to 14 Years	14,630	30,220	52%
15 to 29 Years	10,900	13,060	17%
30 to 49 Years	19,740	24,420	19%
50 to 64 Years	13,330	23,760	44%
64 Years +	15,990	41,930	62%

Projected Population Changes for Tweed: Source New South Wales Statistical Local Area Projections Report 2005

Although there are many factors that influence the demand for Council's services and consequently Council's Plant and Fleet portfolio, a 52% increase across the municipality in the population of residents aged between 0 to 14 years and a 62% increase across the municipality in the population of residents aged 64 and over will have a significant impact on service levels.

For example, if the service levels are to be retained, Council will have to increase the number of staff it has providing services to these residents. This will mean an increase in the administrative and supervisory staff supporting the operational staff and in turn, an increase in the Plant and Fleet assets required to support the activities.

Matching the availability of Council assets to community demand is a cyclic process as demonstrated in the following diagram.



The best entry point to the cycle is through the assessment of community wants and needs, condition, functionality and capacity assessment of Council's current Plant and Fleet portfolio and forward projections of Council's financial capacity.

This framework enables the preparation of forward-looking service strategies that compare forecast demands to current capacities. Gap analyses lead into asset strategies that in turn inform Capital Works Programs of asset renewal, upgrade and improvement works.

This process in conjunction with Council's demand management plan will seek to address any service demand issues which will arise in future.

1.6 Lifecycle Management Plan

Life Cycle Management is recognised by The Tweed as an essential component of this FAMP. This section of the FAMP will provide details of Tweed's data and processes required to effectively manage, maintain, renew and upgrade Council's Plant and Fleet portfolio. It also documents the analysis that Tweed Council undertakes regularly to predict and monitor expected future expenditure required to effectively manage Council's Plant and Fleet portfolio.

To undertake lifecycle asset management, means considering all management options and strategies as part of the asset lifecycle, from planning to disposal. The objective of managing the assets in this manner is to look at long-term cost impacts (or savings) when making asset management decisions.

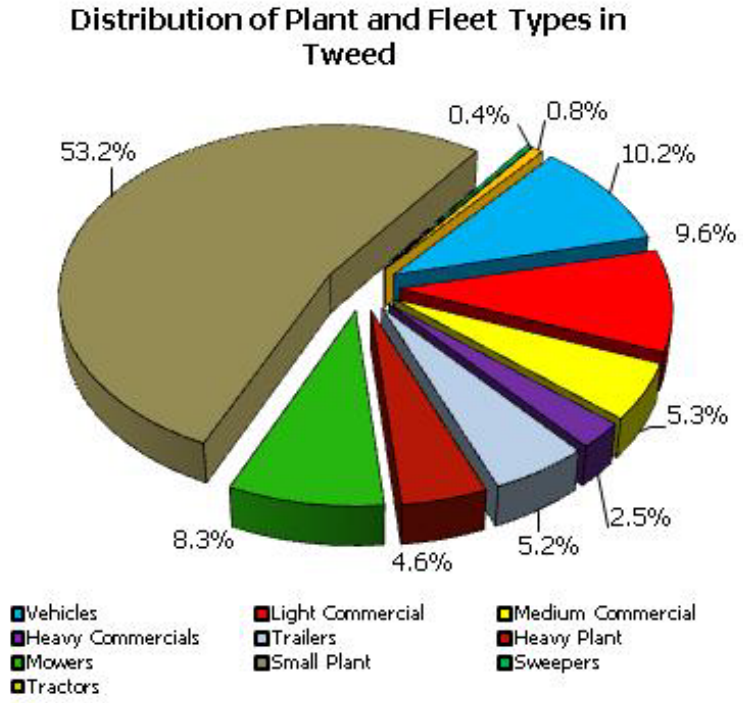
The diagram below provides a graphical representation of the asset lifecycle including each of the stages an asset passes through during its life.

1.7 Plant and Fleet Asset Stock

The following table provides a summary of Tweed's Plant and Fleet asset stock, based on Plant and Fleet types.

Plant and Fleet Type	Quantity
Light Vehicles	107
Commercial Vehicles	183
Heavy Plant	202
Small Plant	560

The following diagram below illustrates that of the 1,052 Plant and Fleet assets maintained by the Tweed Shire, that the most predominant Plant and Fleet type with 53.2% is small plant, followed by 17.4% for commercial vehicles and passenger vehicles with 10.2%.



1.8 How Council Measures its Plant and Fleet Assets Portfolio Condition

Plant and Fleet assets are distinct from infrastructure assets when it comes to identifying condition measurement for these assets.

Tweed Council has categorised Plant and Equipment failure as follows:

- Lack of maintenance, i.e. no greasing, no daily checks carried out, no scheduled oil / fluid changes undertaken;
- Tyre damage caused by incorrect tyre pressure;
- The hours of operation / distance travelled of the asset i.e. wear and tear;
- The operational requirement for the machine, i.e. is the asset fit for use and purpose;
- Design fault. This normally appears during the warranty period; and
- Operator inattention or lack of experience on the machine.

Whilst this criteria is not defined in a data collection manual, as it is difficult to document, Tweed Shire staff take these criteria into account when determining the optimal replacement point for each asset, as this will affect the residual value.

1.9. What is the Useful Lives of Council's Plant and Fleet?

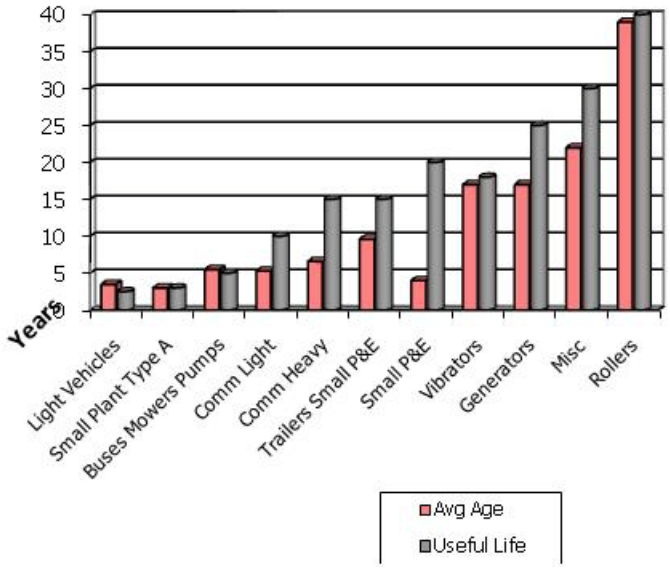
The following table below describes the useful life/expected lives that Council has adopted for each Plant and Fleet item included in this FAMP which has been benchmarked with against national standards.

It should be noted that whilst these assets have much longer lives, this adopted useful life is considered to be the most effective time at which Council will be able to gain optimal usage and trade in values. Hence, this is why this period has been adopted for these assets with regards to them being available to the organisation.

Plant and Fleet Asset Type	Tweed Council Adopted Useful Life	National Standard Useful Life
Sedan	2.5yrs / 80,000 kms	3yrs / 60,000 kms
Wagon	2.5yrs / 80,000 kms	3yrs / 60,000 kms
Utility	2.5yrs / 80,000 kms	3yrs / 60,000 kms
Truck Light	5 yrs / 150,000 kms	6yrs / 100,000 kms
Truck Heavy	10 yrs / 300,000 kms	8yrs / 200,000 kms
Trailers	15 yrs	15 yrs
Grader	9yrs / 9,000 hrs	10yrs / 8,000 hrs
Loader	9yrs / 9,000 hrs	8 yrs / 8,000 hrs
Backhoe	7yrs / 12,000 hrs	5yrs / 5,000 hrs
Mowers	5yrs / 5,000 hrs	
Roller	9yrs / 9,000 hrs	8yrs / 5,000 hrs
Tractor	7yrs / 7,000 hrs	5yrs / 5,000 hrs
Light Plant Other	3yrs to 25yrs / 1,000 to 10,000 hrs	

1.9.1 Snapshot of Council's Plant and Fleet Portfolio Age - Current Levels of Service

The following graph illustrates Tweed's Plant and Fleet Portfolio average age based on Council's adopted useful lives for its various Plant and Fleet assets. The graph shows the percentage of Council's portfolio in each category of useful life.



The above graph indicates that the average age of certain Plant and Fleet assets such light vehicles i.e. sedans and station wagons etc and small plant i.e. mowers, saws etc have exceeded or will reach their allocated useful lives.

This is cause for concern given that industry best practice indicates that to obtain optimal returns when disposing of these assets, requires timely replacement. The distribution of elapsed time since the original purchase date indicates that there are approximately over 300 separate pieces of Plant and Fleet assets that have reached the end of their useful life, presenting a backlog of approximately $5.5 million.

It must be noted, that these comments are general observations based purely on the expected lives of Plant and Fleet assets and that there are many other factors that can contribute to the requirement to replace or upgrade an asset.

1.10 Council's Adopted Financial Strategy for Plant and Fleet Assets?

Section 6.3 of this FAMP has a detailed table documenting the assumptions and required financial strategy allocation required over the following 10 years.

In summary, it has been calculated that Tweed Shire will have to allocate $43.37 million with regards to renewing it Plant and Fleet assets.

Of this expenditure, it is estimated that $18.45 million will be generated from proceeds / disposals leaving Tweed to fund the remaining $24.93 million. This equates to a commitment of approximately $2.49 million per annum.

1.11 Monitoring and Improvement Program

Any Asset Management Plan must be a dynamic document, reflecting and responding to changes over time. A full review of the Plant and Fleet Assets Management Plan should take place every three to five years to document progress and set out proposals for the next five years.

Any review of this FAMP will, in addition to that set out above have, regard to:

- Asset performance following delivery of maintenance program;
- The level of achievement of asset management strategies against the expected benefits to Plant and Fleet users, stakeholders and the community; and
- The consideration of any external factors that is likely to influence the contents of this FAMP.

An Improvement Program in Section 8 has been developed in which it is recommended that Council undertakes a number of actions with an aim to improve the accuracy and confidence in the information and improve its practices with respect to Council's Plant and Fleet assets.

2. Introduction

2.1 Tweed Shire Background

Tweed Shire is located in the north east corner of New South Wales, in a diverse area featuring coastal villages, urban centres, rural villages and agricultural activities.

Diagram 1 – Tweed Shire – Location Map

The centrepiece of the Shire, is Mount Warning, where the sun first hits the Australian continent most of the year. The surrounding McPherson, Tweed, Burringbar and Nightcap ranges form the caldera of the fertile Tweed Valley.

The shire stretches over 1303 square kilometres and adjoins the NSW shires of Byron, Lismore and Kyogle with the Gold Coast City Council area and Scenic Rim Regional Council to its north.

The Shire has 37 kms of natural coastline, wetlands and estuarine forests, and some of the richest pastoral and farm land in NSW. The Tweed River basin is a unique and diverse mountainous region, containing three world-heritage listed national parks.

Prior to European settlement, the area was blanketed in sub-tropical forest and was home to many local aboriginal tribes. Many of the Shire's towns and villages derive their names from the language of the local Aboriginal people.

The Tweed River was the first highway and conduit of people and goods through the district. Farms, settlements and villages formed along its banks and tributaries. The area was settled by timber-getters around 1844; the first school opened in 1871; and by the 1890's, the river port of Tumbulgum was the centre of population. The focus of population moved to Murwillumbah when the municipality was created in 1902. The current Tweed Shire was formed in 1947 when the Municipality of Murwillumbah was amalgamated with the Shire of Tweed.

Today some 84,325[2] people live in Tweed, scattered through 17 villages, two towns, and the major urban areas of Tweed Heads and South Tweed. The last twenty years have seen enormous growth, with the population increasing, 11% between the 1996 and 2001 census, largely due to southern retirees drawn by the temperate climate and relaxed lifestyle. Trends suggest that Tweed's population is projected to increase 119,325 (by 35,000) persons over the next 23 years to 2031[3].

The retail, hospitality, and tourism industries are major employers, while construction, fishing, health, and light industry are other significant contributors to the local economy. The retail sector is the largest employer in the Tweed Shire, accounting for

18.5% of total employment, well above the NSW average of 14.2%. This reflects the importance of tourism in the economy of the Shire. Agriculture also plays a major part in the economy of the Tweed (5.5%) compared to the rest of NSW (3.4%), although the numbers employed in this sector have declined over the last decade.

The Tweed Shire is one of the most rapidly growing areas of Australia and it has undergone dramatic changes over the last 20 years, particularly on the coast. The sea change trend is behind many of these changes. In 2001, 23% of the population was over 65, twice the NSW average. However, the Shire also has a high proportion of children under 19, 25%. Youth unemployment is twice the state average. Incomes in the north coast region are the lowest in NSW. In 2001 over 43% received some form of Centrelink income support, compared to 27% in NSW.

The Tweed Shire Council faces major challenges in accommodating high rates of population growth, while protecting the environment of the Shire, providing services for an aging population, and employment opportunities for its large population of young people.

The Tweed Shire Council has identified that the provision of a safe, efficient, reliable and appropriate plant fleet to service the organisation's operational needs is one of the major areas to be addressed. This focus will continue and is reflected in the Capital Works Programs and in this Plant and Fleet Asset Management Plan (FAMP).

2.2 What is the Purpose of Tweed's FAMP?

The fundamental purpose of this FAMP, is to improve Council's long-term strategic management of its Plant and Fleet assets in order to cater for the needs of Tweed Shire Council's operations in the future, in accordance with Council's key strategic documents and demonstrate reasonable management in the context of Council's available financial and human resources. The FAMP achieves this by setting standards, service levels and programmes which Council will develop and deliver. The standards and service levels have been set in accordance with user needs, regulations, industry practice and legislative codes of practice.

2.3 What will this FAMP Achieve?

The focus of this FAMP is to be pro-active. It will enable Council to:

[2] Source: ABS - Regional Population Growth, Australia, 2007

[3] Tweed Shire Urban Land Release Strategy, February 2008

1. Have precise knowledge of what it owns or has responsibility or legal liability for;
2. Record and extract information on these assets in a register down to an identifiable level;
3. Report on Council's annual depreciations and asset consumption;
4. Measure and monitor the condition, performance, utilisation and costs of assets down to the managed component level and aggregate this data up to give outputs of cost and performance at the portfolio level;
5. Understand and record the current levels of service in terms of responsiveness and performance;
6. Understand the likely future levels of service required based on, demographic changes and community expectations;
7. Understand the long term (5-20 years) funding needs of Council's Plant and Fleet asset portfolio to meet Council's strategic expectations in both capital and maintenance expenditure;
8. Measure, monitor and report on the condition, performance and functionality of Council's assets against prescribed service levels and regulatory requirements;
9. Have uniform processes across Council's whole organisation for the evaluation of any investment in:
    - Renewal, upgrades and expansions of existing assets.
    - Creation of new assets.
    - Maintenance of existing assets.
    - Operational expenditure to deliver services.

2.4 Plan Framework

In the application of this FAMP, Council has developed a whole of life approach to the management of its Plant and Fleet asset portfolio. Council has focused on providing an interdisciplinary view of asset management with the development of an Asset Management Policy and framework for the organisation.

The specific elements considered in this FAMP are to:

- Demonstrate accountability and responsible stewardship of Plant and Fleet assets;
- Identify least-cost options to provide agreed levels of service;
- Assess existing Plant and Fleet asset stocks and their capacity, condition and functional adequacy;
- Document the Levels of Service that will be provided to the organisation;
- Identify future demand for Plant and Fleet assets;
- Manage the risks of Plant and Fleet asset failures and risks of capacity failures;
- Undertake Life Cycle Management;
- Provide the basis for long-term financial planning; and
- Monitor the plan to ascertain if it is meeting Council's objectives.

The implementation of this FAMP reflects a financially responsible approach to meeting the needs of the communities that make up the Tweed Shire in regard to:

1. The level of service provided by the Plant and Fleet assets

2. Economic development
3. Intergenerational equity
4. Environmental sustainability
5. Sustainable development

Through its documented Draft Management Plan 2010-2013, Council has identified a need to develop long-term financial management plans for its Plant and Fleet provision to ensure that it can deliver 'Timely coordinated provision of plant and fleet infrastructure to service urban growth and attract economic development and investment, and build connective urban networks'.

The purpose of this FAMP will therefore enable this to occur in a structured manner. This is of particular importance as Council's investment in its Plant and Fleet assets is valued at approximately $37.9 million[4].

2.5 Key Assets Covered by this FAMP

In all, this FAMP covers 1,052 separate pieces of Plant and Fleet in the various categories as set out in the table below.

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Medium Commercials 4x2 4,000 to 8,000 GVM	27
Medium Commercials 4x2 8,000 to 12,000 GVM	29
Heavy Commercials 4x2 12,000 to 20,000 GVM	9

[4] Source: Tweed Shire Financial Statements 2008/2009

Plant & Fleet Type	No
Heavy Commercials 6x4 over 20,000 GVM/GCVM	10
Combination Units (where 2 large units are combine	7
Cranes All	2
Forklifts All	3
Trailers up to 1,000 GVM	25
Trailers over 1,000 GVM up to 4,000 GVM	25
Trailers over 4,000	4
Trailer Fuel Tankers All	1
Fuel Tank Demountable <1000 LT	2
Graders	4
Loaders over 1 cubic meter under 2 cubic meter	4
Loaders over 2 cubic meters	3
Dozers	1
Excavators up to 15 tonne	2
Excavator over 15 tonne	1
Backhoes All	4
Back Hoes Extended Life	1
Roller Self-propelled up to 10 tonne (Construction	1
Roller Self-propelled over 10 tonne (Construction)	4
Roller Drawn (Construction)	1
Roller all (land care Parks etc)	8
Vibrating Plates (wackers)	11
Rammer	4
Vibrating Needle	5
Sweepers (Large Road type)	2
Sweepers (Small foot path type)	1
Sweeper Tractor Drawn	1
Tractors over 40 Hp under 80 Hp	3
Tractors over 80 Hp	5
Mowers up to 8 Hp	57
Mowers over 10 Hp up to 15 hp	3
Mowers over 15 Hp up to 25 Hp	11

Plant & Fleet Type	No
Mowers over 25 Hp up to 40Hp	8
Mowers over 40 Hp	2
Mowers Tractor Mounted	6
Slashers Tractor Mounted	3
Spreaders (super, lime, fertiliser etc)	1
Edgers (lawn)	16
Tree Chipper	1
Chain Saws All	51
Polesaw	22
Hedge Trimmers All	16
Brush Cutters All	85
Air Blowers / Leaf Suckers	49
Pumps All	29
Concrete Mixers All	2
Concrete Saws All	25
Generators All	47
Air Compressors up to 20 cfm	4
High Pressure Water Units	8
Jack Hammer All	9
Welders All	7
Plasma Cutter	1
Motor Bikes All	1
Caravans All	6
Boats All	9
Out Board Motors All	5
Power tools Electrical	2
Miscellaneous Plant or Equipment (small)	69
Traffic Control Units	1
Radio Communication Units	5
Bush Fire Units & SES	27
Survey Equipment	10
Fuel Amenities	4

Plant & Fleet Type	No
Mowers Cylinder	5
Drive Units All	18
All Wheel Drives Under 2.5 litres	25
Depot Fuel Delivery Systems	2

2.6 Council's Role and Responsibility

The Councils statutory requirements for asset management are derived from the NSW Local Government Act 1993.

The powers, functions and duties of the Council are detailed in Chapter 6, of the Act.

This legislation together with regulations, environmental standards, and responsibilities under common law, impact on the management of Council's Plant and Fleet assets.

In addition, there are also specific statutory requirements relating to Plant and Fleet and these are:

- Road Transport (Safety and Traffic Management) Act 1999 No 20;
- Road Transport (General) Act 2005;
- Occupational Health and Safety Act; and
- Various Australian Standards and Guideline Publications.

2.7 Relationship of this FAMP with other Council Policies, Strategies and Plans

This FAMP documents how Council's Plant and Fleet assets are managed and maintained to meet the needs of the orgainsation. In order to do this effectively, other Council policies, strategies and plans have been considered to determine how this impacts on the FAMP.

These related policies and plans include the following.

2.7.1 Relationship between FAMP and Community Strategic Plan

The Community Strategic Plan and Delivery Program set the course for the delivery of services and projects over the next four years.

The objectives and strategies of the Community Strategic Plan align with Council's vision that "*The Tweed will be recognised for its desirable lifestyle, strong community, unique character and environment, and the opportunities its residents enjoy*".

Council acknowledges that it will need to prepare sustainable social, environmental and financial strategic plans, policy and infrastructure specifications aligned to Council's Vision, Mission and Charter to ensure capacity availability and essential infrastructures can be provided prior to the approval of development whilst maintaining and improving existing levels of services.

Council has a strategy to 'Ensure sustainable provision of infrastructure is available to support economic development'.

In order to deliver it's day to day services to achieve its Objectives and Strategies documented in the Community Strategic Plan, Council Staff requires the use of Plant and Fleet assets.

This FAMP has therefore been aligned to deliver Council's Objectives and Strategies as documented in Council's Community Strategic Plan, in terms of providing cost-effective, transparent, quality and affordable service levels in accordance with community expectations.

2.7.2 Relationship between FAMP and Fleet Procurement for Passenger Vehicle Policy

The Tweed Shire Councils adopted at its Council Meeting held 12 April 2006 the Fleet Procurement for Passenger Vehicle Policy.

This Policy recognises the following key asset management requirements:

- The primary objective of fleet management is to minimise the life cycle cost of the fleet.
- Having regard to reducing the environmental impact of the vehicle fleet, preference is to be given to vehicles with lower fuel consumption/emissions when other considerations are approximately equal (within $2,000 life-cycle cost).
- In selecting individual vehicles, suitability for work uses is the primary consideration, and driver preference is a secondary consideration.
- The fleet is to have a varied composition to minimise the risk of concentrating on a limited number of vehicles, and to allow trial of alternative vehicles (maximum 5).

The FAMP therefore forms an integral part of Council's Fleet Procurement for Passenger Vehicle Policy and recognises the inextricable linkage between the effective management of Council's Plant and Fleet assets and the standard of maintenance specified in this FAMP.

2.8 Stakeholders in Preparation of this FAMP

The owner of the Plant and Fleet asset portfolio is the Tweed Shire Council. The elected members of Council have a stewardship responsibility for the care and control of these assets.

The Fleet Administration section is responsible for the overall control, administration and asset management of the Plant and Fleet assets. This responsibility includes meeting all the regulatory, statutory, legal and operational requirements of the fleet, providing sound management of the plant, vehicle and equipment resources of Council and providing fleet management services and technical advice to the organisation in a timely and cost effective manner.

In effect the Fleet Administration section operates as a Plant, Vehicle and Equipment Hire Organisation to all Divisions of The Tweed Shire.

Some, though not all of the responsibilities of the management of the fleet include:

- Registration;
- Licensing;
- Statutory compliance;

- Operator/driver training;
- Plant and vehicle suitability;
- Risk management; and
- Technical and Mechanical support.

The Fleet Administration section is not responsible for the day to day operation of these assets or the way in which they are utilised for their intended purpose on a day to day basis.

Council recognises that there are varying needs of internal stakeholders when it comes to the selection and purchasing of Plant and Fleet assets for staff to undertake / perform the duties.

Hence, the Fleet Administration section considers all requests and undertakes Plant and vehicle suitability analysis and Risk management analysis on all Plant and Fleet prior to purchasing.

3. Levels of Service

Levels of Service define the assets' performance targets, in relation to reliability, quantity, quality, responsiveness, safety, capacity, environmental impacts, comfort, cost/affordability and legislative compliance.

A key objective of this FAMP has been to match the level of service provided by Council's Plant and Fleet assets, to the expectations of the users (i.e Council Staff) within available resources. This requires a clear understanding of the user needs, expectations and preferences.

To achieve and sustain acceptable standards of service for Council's Plant and Fleet assets requires an annual commitment of funds. These funds provide for regular and responsive maintenance and for timely renewal or replacement of the asset. The provision of adequate financial resources ensures that the Plant and Fleet assets are appropriately managed and preserved. Financial provisions below requirements impacts directly on the service delivered to the community and if prolonged, results in substantial needs for "catch up" expenditure imposed on ratepayers in the future. Additionally, deferred renewal results in increased and escalating reactive maintenance as aged assets deteriorate at increasing rates and reduced proceeds received from these assets when it comes time to dispose of them.

The levels of service that have been adopted are considered reasonable as demonstrated by industry standards and benchmarks.

3.1 Strategic Service Objectives and Strategic Basis for Developing Service Levels

In developing the levels of service as documented in this FAMP, Council has given due regard to the following:

- **Legislative Requirements**. These are the objectives/standards that must be met, set by state, federal or international bodies, to ensure the safety of the general public;

- **Strategic and Corporate Goals**. The lifecycle management of assets will be consistent with the goals and values stated in Council's Management Plan; and
- **Customer Requirements**. These are the expectations of the customers. These expectations must be balanced with the customers' ability and desire to pay with regards to:
    - Safe, reliability, availability and affordable fleet assets; and
    - Programmed preventative maintenance which includes scheduled and non scheduled servicing, customer service request, financial planning for replacement.

3.2 What Customer Research and Expectations were used in setting these Service Levels?

In accordance with current Plant and Vehicle Management Best Practices, Council utilises the following six critical measurement tools which should to be addressed and regularly analysed:

- Utilisation;
- Optimum Replacement Points;
- Whole of life Costs;
- Downtime Costs; and
- Maintenance Failure Records.

3.2.1 What is Utilisation?

Utilisation measures how well a particular asset is used on a daily / yearly basis. Utilisation is usually measured by hours worked or distance travelled in a nominated timeframe, which for comparison or benchmarking purposes is taken as a calendar year.

3.2.2 Why is Measuring Utilisation Important?

Without knowing the utilisation, an accurate assessment of the following management issues cannot be made:

- Is the item needed on a permanent or intermittent basis and should the item be owned or hired as required?
- What are the servicing requirements per annum?
- How much fuel and oil will be required per annum?
- What staff resources are required for servicing and repairs?
- What will the tyre wear be per annum?
- When can major maintenance be programmed?

If these fundamental questions can be accurately answered, then managing the Plant and Fleet assets will be easier.

3.2.3 Addressing Low Utilisation

Where low utilisation is found, a business case study must be made to ensure that the low utilisation is either acceptable due to the nature of the business or lack of hire options. If not, that item should be disposed of.

The business case for retaining ownership of an item with low utilisation must address the following questions:

- Is the item essential to the business operation of the end user client?
- Is there a contractor available to provide a quality service at a competitive cost?
- Is the item to be dry hired? If so, at what cost? Are outside operators sufficiently skilled to provide the service at a competitive price? (Dry hire is plant hire without an operator).

3.2.4 What does Optimum Replacement Points Mean?

Plant and Fleet assets are different to the typical infrastructure assets managed by the Shire, as there is an open and liquid market for these assets.

As a result, these assets are considered to have a defined point or in this case, an optimum replacement point at which the asset should be sold / disposed to achieve maximum benefits on the re-sale value of the asset.

It is important that asset managers have a good understanding with regards to re-sale values and the optimum time to replace an asset.

3.2.5 Whole of life Costs

In terms of Plant and Fleet assets, whole of life costs refers to the total cost of owning and maintaining that asset over its entire life, until disposal / sale.

Council is in a good position with regards to identifying whole of life costs for its Plant and Fleet assets as it has established internal hire rates for these assets.

To develop internal hire rates, it was necessary to establish whole of life costs. The elements of whole of life costs include purchase price, resale value, opportunity costs, fuel, repairs, maintenance, insurance, oil, registration, and admin costs.

The various users of the asset are then charged appropriately, the rate to use the asset during their normal day to day operations.

3.3 Legislative and Statutory Requirements Relevant to NSW Plant and Fleet Management

This FAMP is governed by the following Acts and Regulations as follows:

Legislation	Purpose
NSW Local Government Act 1993	This Act provides the purpose, objectives, functions and powers of municipal Councils in relation to the delivery and management of municipal assets. [5] Examples of these functions include the provision,

[5] Refer to Division 2, Part 3, Chapter 6 of the Local Government Act 1993

Legislation	Purpose
	management or operation of: • community services and facilities • public health services and facilities • sporting, recreational and entertainment services and facilities • environment conservation, protection and improvement services and facilities • public transport services and facilities • waste removal, treatment and disposal services and facilities • water, sewerage and drainage works and facilities • stormwater drainage and flood prevention, protection and mitigation services and facilities • fire prevention, protection and mitigation services and facilities
Motor Vehicle Standards Act 1989	The main objects of this Act are: (a) to achieve uniform vehicle standards to apply to new vehicles when they begin to be used in transport in Australia; and (b) to regulate the first supply to the market of used imported vehicles.
Occupational Health & Safety Regulations 2001	This Regulation is made under the Occupational Health and Safety Act 2000. It sets regulations with regards to work-risk management. It is important to note that Chapter 4 is divided into 5 Parts. Part 4.1 deals with preliminary matters. Part 4.2 deals with the responsibilities of controllers of premises as to hazard identification, risk assessment, risk control and provision of information generally and as to fall prevention, electricity and asbestos installed in the workplace in particular. Part 4.3 deals with the use of places of work and the responsibilities of employers as to working space, lighting, heat and cold, noise management, atmosphere, working at heights, fire prevention, electricity and working in confined spaces. Part 4.4 deals with manual handling. Part 4.5 deals with long

Legislation	Purpose
	distance truck driver fatigue.
Occupational Health and Safety Act 2000 No 40	The objects of this Act is to secure and promote the health, safety and welfare of people at work and hence when Council employees undertake works, must do so with regards to the various requirements of this act.
Disability Discrimination Act 1994	The objects of this Act are: (a) to eliminate, as far as possible, discrimination against persons on the ground of disability in the areas of: (i) work, accommodation, education, access to premises, clubs and sport; and (ii) the provision of goods, facilities, services and land; and (iii) existing laws; and (iv) the administration of Commonwealth laws and programs; and (b) to ensure, as far as practicable, that persons with disabilities have the same rights to equality before the law as the rest of the community; and (c) to promote recognition and acceptance within the community of the principle that persons with disabilities have the same fundamental rights as the rest of the community.

In addition, Tweed Shire Council, where appropriate, complies with the following specifications, guidelines and Australian Standards:

Standards / Specifications	Purpose
National Code of Practice for Light Vehicle Construction and Modification (NCOP)	The *National Code of Practice for Light Vehicle Construction and Modification* (NCOP) has been prepared by members of the Australian Motor Vehicle Certification Board Working Party in consultation with industry, user groups, government agencies and individuals with an interest in light vehicle construction and modification
Motor Vehicle Standards Regulations 1989	Made under the Motor Vehicle Standards Act 1989, this Standard provides for National Standards and Provides guidance

	of the supply and importation of vehicles.

3.4 What is Council's Plant and Fleet Hierarchy?

No Authority can deliver everything, all the time. In fact, in line with good practice and affordable service delivery, it may not be practical or cost-effective to deliver the same level of service across the entire asset portfolio. Therefore Tweed Shire has documented a Plant and Fleet asset hierarchy that classifies the Plant and Fleet portfolio / network into appropriate groups based on the appropriate levels of service.

In accordance with the International Infrastructure Management Manual, Council acknowledges that the primary purpose of an asset hierarchy is to ensure that appropriate management, engineering standards and planning practices are applied to the asset based on its function. It also enables more efficient use of limited resources by allocating funding to those assets that are in greater need and the costs are better justified.

Without an adequate Plant and Fleet hierarchy, there may be inefficient allocation of resources, user expectations may vary and the scheduling of Plant and Fleet works and priorities made more difficult.

3.4.1 Tweed Plant and Fleet Hierarchy

The Plant and Fleet assets for which the Tweed Shire is the responsible authority have been categorised into the following main asset hierarchies.

- Light Vehicles - Passenger vehicles, eg cars, four wheel drives, station wagons, utilities;
- Heavy Vehicles - e.g. Trucks > 4.5 tonne GVM etc;
- Heavy Plant – Roads, Waste Management and Parks and Gardens machinery, eg Trucks, Tractors, Graders, Ride on Mowers, etc; and
- Light Plant – Hand Mowers, Whipper Snipers, Chain Saws, Compressors, etc.

This FAMP therefore has different maintenance interventions, inspection frequencies and response times for each Plant and Fleet hierarchy.

3.5 Current Council Practices

The following are special service level consideration processes with the provision of Plant and Fleet assets currently carried out by Council or others.

3.5.1 Use of Contractors

Council's Fleet section on occasion contract out their major repair jobs depending on their workload. This work is contracted out to specialist and local mechanical suppliers who provide Council with an annual schedule of rates for such services.

In addition to this, the following are special considerations where Council's Fleet section utilise contractors to undertake works and these are as follows:

- CATS are serviced by specialised repairers;
- Repairs required as a result of accidents or vandalism are sent to panel beating companies;
- In some cases where certain major breakdowns occur;
- Assets that require repairs / work and are under warranty;

- Cranes on the back of vehicles are serviced annually by a specialised company; and
- Where assets have special requirements requiring specialised services i,e cranes etc

3.5.2 Client - Service Provider Structure

The Fleet Administration section has been set up as Hire Agent for Council's Fleet and Plant assets. This structure has been specifically setup as the Fleet Administration section have the staff and knowledge to work out costs on these assets and in consultation with the requesting department, develop specification regarding what type of asset is purchased.

This structure allows improved control and compliance of regulatory requirements. In addition, it allows for improved rationalisation of assets.

The Fleet Administration section also develop charge out rates for the various Fleet and Plant assets taking into account all life cycle costs (i.e. insurance, oil, parts, sale proceeds etc) and these rates are charged to the respective business units who utilise the assets.

It is acknowledged that by implementing charge out rates, that this process ensures that the end user is aware of the necessary cost such an asset will have on their budget and hence is better able to allocate funds.

3.5.3 Tenders for Purchases

Council has a Procurement Policy V1.3 and Procurement Procedure Document V1.3 which have been adopted by Council in March 2011. The objectives of these documents are:

- To ensure Council at all times complies with the N.S.W. Local Government Act 1993 and the N.S.W. Local Government (General) Regulations 2005 in relation to the procurement of goods and services;
- To clearly define a procurement framework, responsibilities and procedures for guidance of all Council Officers; and
- To ensure that Council's procurement procedures are of best practice and such meet the highest level of public accountability.

In addition to these documents, Council also has a Fleet Procurement Policy V1.1 adopted by Council in November 2007, which applies a series of strategies and decisions that will result in the minimum total cost of the fleet that will meet the organisation's needs and objectives.

All Fleet Tenders are based on the NSW State Government Tender which has suppliers which provide assets such as passenger vehicles and trucks at set prices. If Council chooses to purchase a vehicle from a local supplier the supplier needs to be aware of State Contract prices and either match or beat that price.

3.6 What are Council's Levels of Service being delivered?

Tweed Shire Council has defined two tiers of levels of service:

The first being '**Strategic Levels of Service**' – what Council expects to provide in terms of key customer outcomes:

- Appropriateness of service.
- Accessibility to users 24 hours a day, 7 days a week.
- Affordability – acknowledging that Council can only deliver what it can afford.
- Relevance of the service being provided – in terms of demand characteristics, future demographics, current back-logs and where the pressure points are.

The second being '**Operational Levels of Service**'

- What Council will do in real terms, i.e. reliability, functionality and adequacy of the services provided. Typically, this FAMP has documented Council's standards – i.e. at what point will Council repair, renew or upgrade to meet the customer outcomes listed in the strategic levels.

- Operational levels of service are also referred within Council as Technical Levels of Service and have been defined for each of the following:
  - **New Asset** – If Council provides new Plant and Fleet assets, then what design / specification and maintainability standards shall apply to make them meet Council's strategic outcomes.
  - **Upgraded Asset to original standard** - If Council upgrades any of its Plant and Fleet, what design / specification and maintainability standards shall apply to make them meet Council's strategic outcomes.
  - **Maintenance** – When will Council intervene with a maintenance repair and what will be Council's responsiveness in terms of client requests for maintenance faults.

The current Levels of Service (LoS) have been developed through internal consultation to represent the existing practices. This is based on the currently understanding of the drivers against measurable performance indicators. As this FAMP is reviewed and becomes further sophisticated the LoS will be developed in consultation with the customers.

3.6.1 Strategic Levels of Service

Tweed Council's Strategic Levels of Service that have been adopted as a result of this FAMP are tabulated in the table below as:

Service Criteria	What will Council do?	Performance Standard / Measure
Community		
Quality	Well maintained Plant and Fleet in a safe and operational condition	<200 breakdowns per annum
Customer Satisfaction	Plant and Fleet assets meet client needs	>60% customer survey satisfaction

Service Criteria	What will Council do?	Performance Standard / Measure
Technical		
Condition	Provide timely preventative maintenance servicing	Asset downtime to be kept to a minimum, with assets being operational 90% of the time. Maintenance schedules programmed as per Manufacturer's specification.
Programmed Replacement	Assets replaced within nominated timeframes and budgets.	Reduce Life Cycle asset costs and renewal gaps in future. Optimal renewal of assets is achieved.

3.6.2 Capital Levels of Service – New Assets / Upgraded Assets

The purchase of new Plant and Fleet assets will always be provided in accordance with:

- Council's requirements with regards to the asset being fit for purpose and fit for use;
- An awareness of the past failures of various assets to ensure correct equipment availability and purchase; and
- Relevant Australian Standards / Specifications.

3.6.3 Maintenance Levels of Service

For the Levels of Service delivered on a day to day nature (i.e. responding to requests for maintenance faults and responding to breakdowns), Council has a proactive and preventative maintenance schedule for all Plant and Fleet assets.

The assets are scheduled for service during the optimal time so as to minimise inconvenience to the staff that use the assets to perform their duties and these schedules are programmed in Councils' Asset Management System.

Council has developed internal Inspection and Service Lists and a Daily Plant Sheet Check List taking into account the Manufacturer's or Industry recommended guidelines

These internal procedures and check lists document what the Mechanical Staff should do as follows:

1. The task or work expected to be undertaken, e.g. change oil, check spark plugs.

2. The quantity of work expected to be undertaken (workload indicators), e.g. 4litres of oil, 1 fan belt.
3. The schedule of inspections to be undertaken of specified matters at specified intervals;
4. The circumstances under which intervention action is to be taken with respect to repair or maintenance needs for defects reported or found on inspection;

With regards to unscheduled maintenance activities, Council's Fleet Administration section attends to these in priority order taking into account the risks associated with the defect and the situation.

Such unscheduled maintenance activities include the following:

- Flat Tyre;
- Plant / Fleet engine breakdown; and
- Vandalism;

In terms of response times to these activities, Council assesses and prioritises to respond by either attending or repairing the defect within a reasonable time.

Typically these unscheduled maintenance activities are responded to within 4 to 24 hours depending on parts and staff availability to minimise downtime.

In situations where the Mechanical Staff cannot assist or attend to these situations, Council utilises the services of Roadside Assist for passenger vehicles only.

Responsibility for immediate dangerous situations with respect to Plant and Fleet is initially assessed or undertaken by Councils mechanical staff.

This FAMP acknowledges the importance of understanding and monitoring the linkage between workload indicators and intervention actions. A substantial increase in the overall number of Plant and Fleet assets within Council's portfolio which will need to be maintained can materially impact upon intervention action (and customer satisfaction and duty of care requirements) if not accompanied by a comparable increase in budget allocation or productivity improvement.

Given the outcomes of the internal review with respect to Council's Plant and Fleet maintenance services, the standards of maintenance detailed in this FAMP are considered reasonable and meeting community expectations in the context of responsible and reasonable Plant and Fleet management.

3.7 Customer Requests – Data Analysis

No works have currently been undertaken in terms of assessing customer requests and satisfaction with the Fleet Administration section's performance.

It is envisaged that such analysis will be undertaken via an internal review in the next few years.

3.8 How will Council Identify and/or Measure the Continuous Improvement of its Services?

The internal review process is intended to gain corporate ownership of service level standards. The process employed (each step) is described below and for all FAMP reviews, this same process is applied.

1. Draft service levels are developed in consultation with key maintenance and capital staff.
2. The draft levels, along-with associated data and parameters are then presented to the internal executive committee for feed-back and comments. Revisions are made where appropriate, with reasons for revisions clearly documented.
3. The Revised frameworks are then presented to Executive Team for draft approval. Valid suggestions are incorporated and further revisions made where necessary and reasons for revisions are documented.
4. The frameworks will be reviewed at-least once every four years or at more regular intervals if required for any other compelling reason.

3.9 Desired Levels of Service

Given the outcomes of the internal and external review with respect to Council's Plant and Fleet asset services, the standards of maintenance detailed in this FAMP are considered reasonable and meet user's expectations.

3.10 Plant and Fleet Service Delivery

The provision of Plant and Fleet services to the Tweed Shire is the responsibility of the Director Engineering and Operations, who is responsible for the management of the Engineering and Operations Department.

The following organisational chart identifies the roles and the reporting structure of the Engineering and Operations Department.

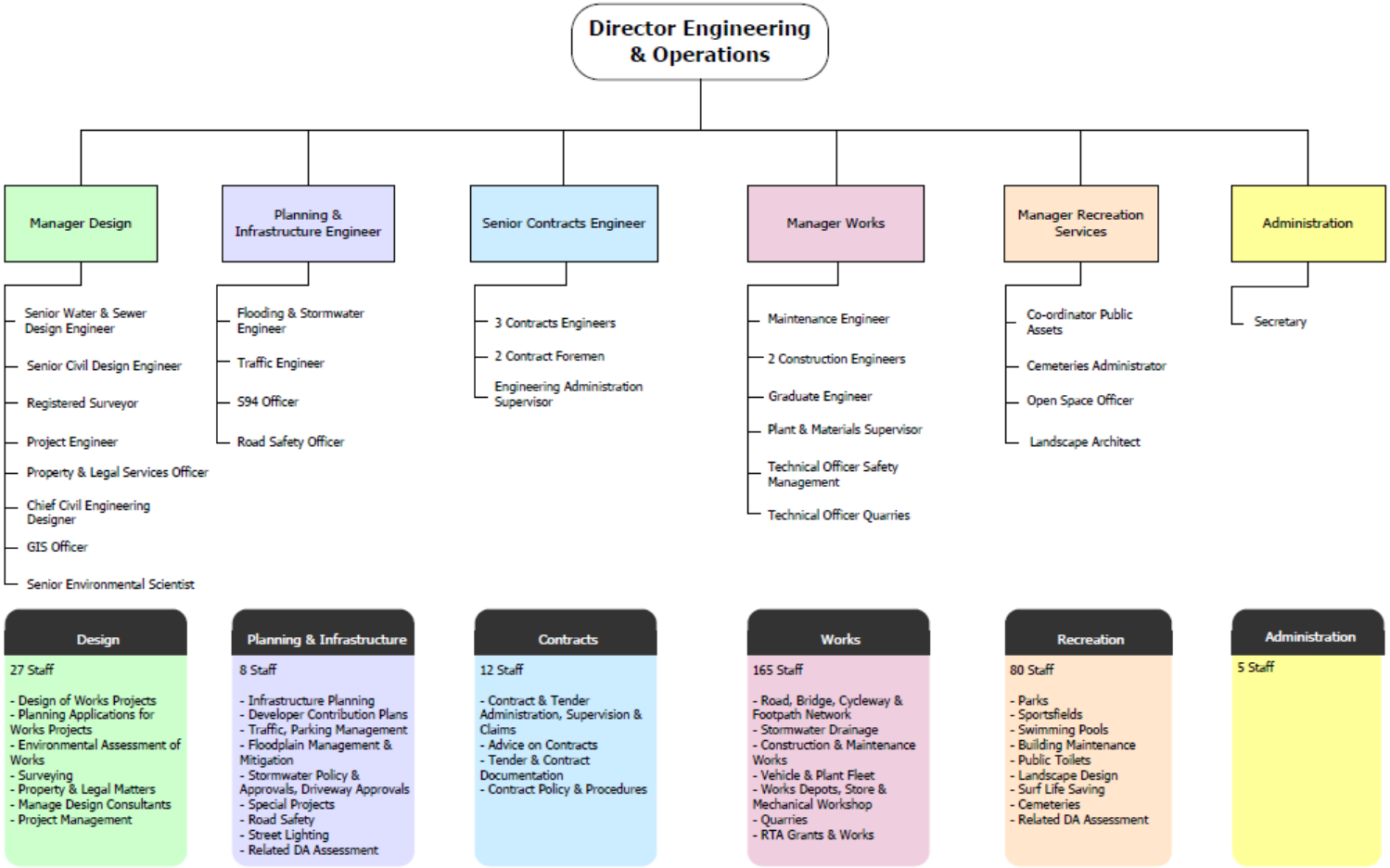

Diagram 2 –The Tweed Plant and Fleet Organisational Structure

3.11 Responsibility Matrix

Asset Type	Asset Owner	Asset Manager	Asset Data Manager	Use Manager	Daily Inspection	Routine Inspection	Servicing Appointment	Condition Assessment	Maintenance	Cleaning	Valuation	Renewal	Replacement	Disposal
Motor Vehicles	BUS	FA	FA	BUS & FA	BUS	FA	FA	FA	FA	BUS	FIN	FA	EMT	FA
Earth Moving Machinery	BUS	FA	FA	BUS & FA	BUS	FA	FA	FA	FA	BUS	FIN	FA	EMT	FA
Construction Equipment	BUS	FA	FA	BUS & FA	BUS	FA	FA	FA	FA	BUS	FIN	FA	EMT	FA
Gardening Equipment	BUS	FA	FA	BUS & FA	BUS	FA	FA	FA	FA	BUS	FIN	FA	EMT	FA

Table 1 - Tweed Fleet Responsibility Matrix

BUS	Relevant Business Unit	FA	Fleet Administration Section
EMT	Executive Management Team	FIN	Finance Unit

The above Responsibility Matrix identifies which Unit within the Shire is responsible for which asset management provision to provide a clearer set of guidelines.

Asset Management Responsibility Matrix - Definitions

Client

The client is the person who makes the decision to create or dispose of the asset. This decision to create or dispose of the asset would be made by the client in consultation with the policy maker, the strategic planner and the use manager. The client would engage the constructor or the disposer to undertake the requisite works.

Strategic planning

The strategic planner for the asset is responsible for lifecycle planning for that asset. This involves maintenance of suitable information on the asset, financial planning and prioritisation of major works to the asset. In consultation with the client, the use manager and the works planner, the strategic planner is responsible for making the capital works submission/s for the asset. The strategic planner is also responsible for the specifications / design of the asset in consultation with the client, the creator and the use manager.

Inspection

The asset inspector is responsible for the inspection of the asset during its life until the disposal of the asset. The inspector reports any defects and/or required works to the Fleet Administration section.

Valuation

The asset valuer is responsible for the accurate financial reporting of the value and extent of an asset. Generally, this function is undertaken by Financial Services through the use of asset registers in consultation with the Fleet Administration section. In other cases, often with complex depreciation methodology, the Fleet Administration section undertakes the valuation.

Works planning

The works planner is responsible for planning of maintenance works for the asset. Where maintenance works are identified that are outside the scope of the works planner’s parameters for a given asset, these works are forwarded to the Fleet Administration

section for consideration in the capital works program. The works planner is required to take the needs of the client, the Fleet Administration section and the use manager into account when planning maintenance works to a asset.

Repair

In accordance with the directions given by the works planner, the repairer is accountable for the correct physical maintenance (repair) of the asset.

Cleaning

The cleaning of the asset is undertaken by the staff who utilise the asset. In most cases the cleaner works to the direction of the Fleet Administration section.

Use management

The day to day management and planning for the usage of the asset is undertaken by the use manager. The use manager works closely with the Fleet Administration section with regards to the purchase and selection of a new asset. The use manager also provides valuable input and direction to the works planner.

Renewal

The responsibility for the renewal of the asset lies with this position. In practice this is usually a decision made by the client, Fleet Administration section and the use manager.

Replacement

The responsibility for the replacement of the asset lies with this position. In practice this is usually a decision made by the client, strategic planner and the use manager.

Disposal

The disposer is responsible disposal/removal/demolition of an asset when it is no longer required and is often the same person as the constructor.

It is considered that the above structure and responsibilities are adequate at present in terms of being able to effectively provide the services to the organisation. However, this may be reassessed in the near future in terms of number of staff who undertake inspections and staff positions in terms of undertaking the management aspects. Should these resources be required, it may not necessarily involve the employment of additional staff, but could involve the shifting of resources and responsibilities from one area to another after a further detailed assessment is undertaken.

4. Demand Management

Council's fundamental role is to provide services to the community and its Plant and Fleet assets are a means to support this. Consequently, future demand for Plant and Fleet is tied to the demand for Council's services and this is a more complex consideration than population growth.

Issues such as changing demands for particular services, changing mixes in the balance between public and private service provisions and changing community expectations of service levels, all affect the need for Plant and Fleet assets.

Plant and Fleet asset management plans are critically driven by the needs of the services to be delivered and therefore meaningful Plant and Fleet asset strategies cannot be developed in isolation or in absence of comprehensive service strategies. Maintaining Council's Plant and Fleet assets without adequate regard for service needs may result in a well-maintained portfolio of Plant and Fleet but it may also result in an asset portfolio which does not meet the needs of staff who provide services to the community.

The following sub-sections discussing forecasted demographic trends and documented service strategies will assist The Tweed Shire in understanding the Plant and Fleet asset portfolio needs across the municipality.

4.1 Understanding Demand and Growth in the Tweed Region

Statistical information from Australian Bureau of Statistics in March 2008 confirms that The Tweed is experiencing and will continue to experience growth.

Tweed Shire is home to an estimated 82,955 people (Australian Bureau of Statistics (ABS) 2006), this is an increase of 10.34% from the 74,590 residents which were living in Tweed in 2001.

4.2 Council's Future Population Change?

The following table illustrates that substantial population increase is expected to occur in the Tweed LGA up to 2031. This is in line with recent population trends in the Shire which has seen it grow at an average annual rate of 2.1%, compared to the NSW average of 0.7%. Tweed Heads continues to grow at the fastest rate of all the Shire's planning districts.

The total population is projected to grow from a 2001 base of 74,590 people past the 2006 figure of 82,955 to 90,870 by 2011. This growth is not expected to occur evenly across the age groups, with relatively little growth anticipated in the younger age groups, especially those under 15 years of age.

This projected population profile reflects the socio-demographic changes which have resulted in middle to older age groups undertaking a sea change. This movement to the Shire up and out from the rest of NSW, as well as the movement of people down from South East Queensland, along with improved access to the Shire facilitated by upgrading of the Pacific Highway, is expected to result in the continuation of the rapid growth rate over the next two decades.

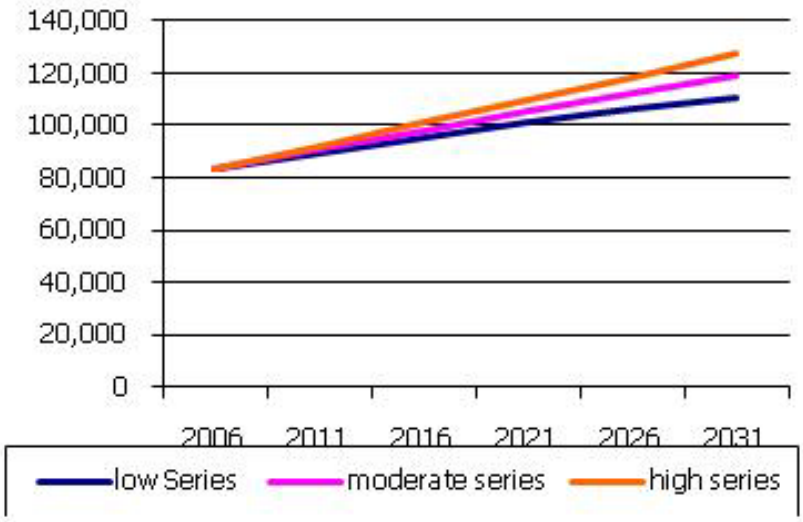

Diagram 3 – Tweed Projected Population Figures

4.2 Current Plant and Fleet Asset Utilisation

In the context of this FAMP, it is assumed that all existing Plant and Fleet assets are being utilised at their optimal level.

However, further analysis regarding asset utilisation will be considered in future revisions of this FAMP.

4.3 Current Issues Influencing Service Demand

In the absence of comprehensive service strategies, population trends can be used as a guide to ascertain future demand.

Age Group	Population 2001	Forecast Population 2031	Forecast Population Change
Whole population	74,590	133,390	44%
0 to 14 Years	14,630	30,220	52%
15 to 29 Years	10,900	13,060	17%
30 to 49 Years	19,740	24,420	19%
50 to 64 Years	13,330	23,760	44%
64 Years +	15,990	41,930	62%

Projected Population Changes for Tweed: Source New South Wales Statistical Local Area Projections Report 2005

Although there are many factors that influence the demand for Council's services and consequently Council's Plant and Fleet portfolio, a 52% increase across the municipality in the population of residents aged between 0 to 14 years and a 62% increase across the municipality in the population of residents aged 64 and over will have a significant impact on service levels.

For example, if the service levels are to be retained, Council will have to increase the number of staff it has providing services to these residents. This will mean an increase in the administrative and supervisory staff supporting the operational staff and in turn, an increase in the Plant and Fleet assets required to support the activities.

Matching the availability of Council assets to community demand is a cyclic process as demonstrated in the following diagram.

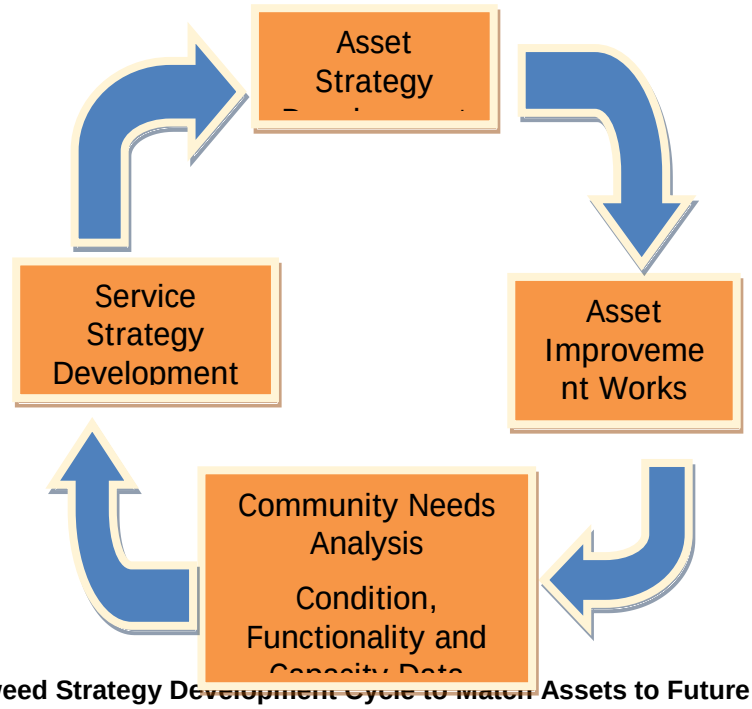

Diagram 4 – Tweed Strategy Development Cycle to Match Assets to Future Demand

The best entry point to the cycle is through the assessment of community wants and needs, condition, functionality and capacity assessment of Council's current Plant and Fleet portfolio and forward projections of Council's financial capacity.

This framework enables the preparation of forward-looking service strategies that compare forecast demands to current capacities. Gap analyses lead into asset strategies that in turn inform Capital Works Programs of asset renewal, upgrade and improvement works.

This process in conjunction with Council's demand management plan will seek to address any service demand issues which will arise in future.

4.4 Changes in Technology

Council is continuously monitoring new asset treatments that may be available to increase the life of its assets or improve efficiencies in terms of how the assets are managed.

Tweed Shire is currently assessing the life cycle costs and benefits of green powered vehicles.

4.5 New Assets

At present, Council does not forecast an increase in its Plant and Fleet assets stock.

4.6 Changes in Technological Obsolesce

4.6.1 Environmental Fleet Review

The NSW Government launched the NSW Cleaner Vehicles Action Plan in 2001. It is an important part of the Plan that Government leads by example with the introduction of the Cleaner NSW Government Fleet (CGF) initiative for vehicles under 3.5 tonnes GVM or Gross Vehicle Mass.

Under this initiative agencies are required to develop and implement a Fleet Improvement Plan, incorporating specific fleet performance targets from 1 July 2005.

NSW Government Targets

1. *Average 'environment performance score' target*

Each agency is required to achieve an 'average environment performance' score of:

- 10 out of 20 by end 2005/06 financial year
- 11 out of 20 by end 2006/07 financial year
- 12 out of 20 by end 2007/08 financial year

The average environment performance score is calculated using the vehicle scoring system adopted for the NSW Clean Car Benchmarks, which rates the greenhouse emissions (measured as CO2) and air quality impact (noxious emissions) of vehicles.

2. *Greenhouse Reduction Target*

Greenhouse emissions from transport represent 15% of the total greenhouse emissions in NSW. These emissions have increased by 20% from 1990 to 2002 and are growing strongly. The NSW Government intends to reduce the greenhouse gas emissions associated with the operation of its vehicle fleet (measured as CO2 from fuel consumption).

The Tweed Shire has implemented strategies to reduce total fuel consumption, by:

- Reducing the number of vehicles in the fleet (where Plant and Fleet have been considered excess to requirements); and
- Improving fuel efficiency of individual vehicles.

5. Lifecycle Management Plan

Life Cycle Management is recognised by Tweed Shire Council as an essential component of this FAMP. This section of the FAMP will provide details of Tweed's data and the processes required to effectively manage, maintain, renew and upgrade Council's Plant and Fleet portfolio. It also documents the analysis that Tweed undertakes regularly to predict and monitor expected future expenditure required to effectively manage Council's Plant and Fleet portfolio.

To undertake lifecycle asset management, means considering all management options and strategies as part of the asset lifecycle, from planning to disposal. The

objective of managing the assets in this manner is to look at long-term cost impacts (or savings) when making asset management decisions.

The diagram below provides a graphical representation of the asset lifecycle including each of the stages an asset passes through during its life.

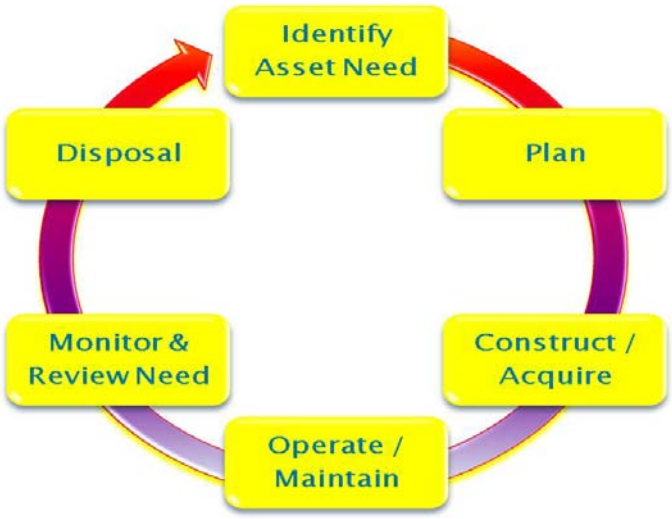

Diagram 5 – Asset Lifecycle Diagram

5.1 Plant and Fleet Asset Stock

The following table provides a summary of Tweed's Plant and Fleet asset stock, based on Plant and Fleet types.

Plant and Fleet Type	Quantity
Light Vehicles	107
Commercial Vehicles	183
Heavy Plant	202
Small Plant	560

The following diagram below illustrates that of the 1,052 Plant and Fleet assets maintained by the Tweed Shire, that the most predominant Plant and Fleet type with 53.2% is small plant, followed by 17.4% for commercial vehicles and passenger vehicles with 10.2%.

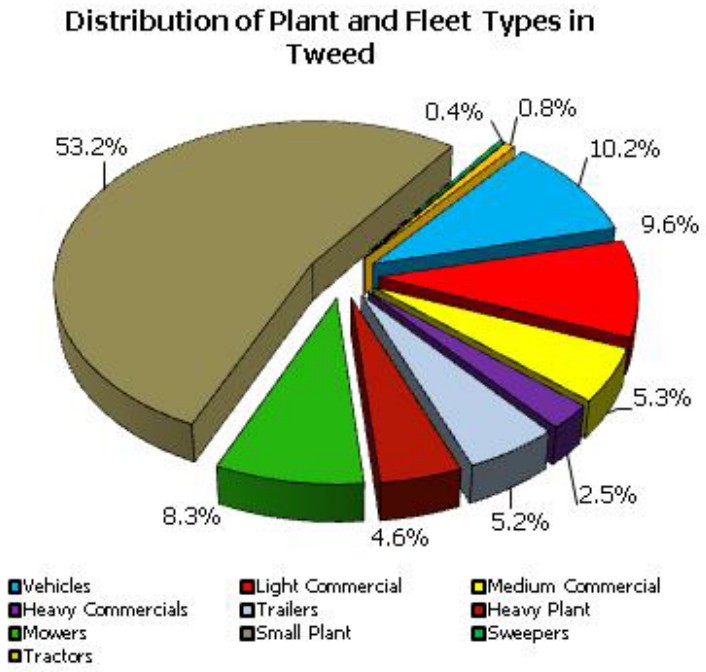

Diagram 6 – Distribution of Plant and Fleet Portfolio

5.2 Plant and Fleet Information Management

All information pertaining to location, type, dimensions, materials, known constructed dates and condition of these Plant and Fleet assets are recorded and stored in Council's Asset Register. It is estimated that Council's Asset Register is 95% up to date.

5.3 How Council Measures its Plant and Fleet Assets Portfolio Condition

Plant and Fleet assets are distinct from infrastructure assets when it comes to identifying condition measurement for these assets.

Tweed Council has categorised Plant and Equipment failure as follows:

- Lack of maintenance, i.e. no greasing, no daily checks carried out, no scheduled oil / fluid changes undertaken;
- Tyre damage caused by incorrect tyre pressure;
- The hours of operation / distance travelled of the asset i.e. wear and tear;
- The operational requirement for the machine, i.e. is the asset fit for use and purpose;
- Design fault. This normally appears during the warranty period; and
- Operator inattention or lack of experience on the machine.

Whilst this criteria is not defined in a data collection manual, as it is difficult to document, Tweed Shire staff take these criteria into account when determining the optimal replacement point for each asset, as this will affect the residual value.

5.4 What is the Useful Lives of Council's Plant and Fleet?

The following table below describes the useful life/expected lives that Council has adopted for each Plant and Fleet included in this FAMP which have been benchmarked with against national standards.

It should be noted that whilst these assets have much longer lives, this adopted useful life is considered to be the most effective time at which Council will be able to gain optimal usage and trade in values. Hence, this is why this period has been adopted for these assets with regards to them being available to the organisation.

Plant and Fleet Asset Type	Tweed Council Adopted Useful Life	National Standard Useful Life
Sedan	2.5yrs / 80,000 kms	3yrs / 60,000 kms
Wagon	2.5yrs / 80,000 kms	3yrs / 60,000 kms
Utility	2.5yrs / 80,000 kms	3yrs / 60,000 kms
Truck Light	5 yrs / 150,000 kms	6yrs / 100,000 kms
Truck Heavy	10 yrs / 300,000 kms	8yrs / 200,000 kms
Trailers	15 yrs	15 yrs
Grader	9yrs / 9,000 hrs	10yrs / 8,000 hrs
Loader	9yrs / 9,000 hrs	8 yrs / 8,000 hrs
Backhoe	7yrs / 12,000 hrs	5yrs / 5,000 hrs
Mowers	5yrs / 5,000 hrs	
Roller	9yrs / 9,000 hrs	8yrs / 5,000 hrs
Tractor	7yrs / 7,000 hrs	5yrs / 5,000 hrs
Light Plant Other	3yrs to 25yrs / 1,000 to 10,000 hrs	

Table 2- Plant and Fleet Useful Lives

5.5 Plant and Fleet Issues in Tweed

The following have been identified as issues which affect the levels of service provided by the Fleet Administration Section:

- The Fleet Workshop is considered too small to accommodate the amount of vehicles and plant which require servicing and/or work;
- Only 2 mechanics per year full time are allocated to servicing and repairing fleet vehicles. That equates to a ratio of 1 mechanic per 190 vehicles. The industry standard is typically 1 mechanic per 100 vehicles.
- 2 mechanics per year full time service all plant. Ratio of mechanics to items of plant servicing is therefore around 130 pieces of plant to 1 mechanic. Benchmarked data informs us that in other councils this ratio is 65 pieces of plant per 1 mechanic.
- The current economic climate has also brought about issues in light commercials vehicles have a current standard delivery time of 6 months, trucks 11 months and earth moving machinery anywhere up to 12 months.

As a result, the Fleet Section is considering the following changes to its current works practices which may impact on the levels of service currently delivered and they are as follows:

- Reducing the scheduled services for light fleet from 3 services a year to 2 a year which will buy workshop time of 1 year;
- Extending the 10,000 kms service up to 15,000 kms; and
- Incorporate more advanced planning into the purchasing forecast to ensure that fleet and plant can be bought in a timely manner.

5.6 Asset Valuations

Tweed Council's accepted practice of asset valuations is undertaken to conform to the Australian Accounting Standards Board. Under accounting guidelines, the Council may use depreciated historic cost as a representation of Fair Value for all Plant and Fleet assets.

The principal issues in accounting for plant and equipment are the recognition of the assets, the determination of their carrying amounts and the depreciation charges and impairment losses to be recognised in relation to them.

5.6.1 Valuation Summary Based on Replacement Costs

The following table documents the Plant and Fleet assets as at 30 June 2009[6].

	Fair Value	Accumulated Depreciation	Written Down Value
	$37,934,000	$17,287,000	$20,647,000
Total	**$37,934,000**	**$17,287,000**	**$20,647,000**

Table 3- 2009 Plant and Fleet Financial Values

As at 30 June 2009, the Annual Depreciation (annual asset consumption) for Plant and Fleet assets was calculated at $2,692 million.

5.7 Maintenance Inspections of Plant and Fleet Assets

The frequency of proactive and reactive maintenance inspections is undertaken as per the frequency, levels defined in Council's Asset Management System and Asset Servicing Checklists, as per industry and manufacturers guidelines.

5.8 New Plant and Fleet - Initial Specifications and Purchase

The acquisition of new Plant and Fleet involves two distinct processes - first is identifying the need for the asset and what it will be used for. Once this has been established, Council Fleet Section can procure the most suitable asset that will meet the requirements of the end user.

The purchase of all new vehicles or plant is undertaken via a competitive tender process to ensure that the best possible price is achieved.

[6] Tweed Shire Financial Statements 2009

5.9 Routine Maintenance

Over time, minor faults can occur within the Shire's Plant and Fleet assets. Council addresses the repairs and maintenance of these faults on the basis of defined manufacturer intervention levels and response times, taking into account risk.

5.10 Renewal and Upgrade Works

The cost to undertake Plant and Fleet works, vary from year to year and depend on the quantity and quality of works undertaken. However, typical average unit rates applicable to these treatments are contained in Council's asset management system and/or the financial system.

5.11 Disposal Plan

Disposal is any activity associated with removing an asset from 'service' through decommission, including sale, demolition or relocation.

Tweed Shire's current practice is to dispose of Plant and Vehicles which are either excess to requirements or when they reach the adopted useful lives as documented in Section 5.4

5.12 Risk Management Plan

In terms of evaluating risk, Tweed has developed a Risk Register to mitigate its risk in relation to managing its Fleet and Plant portfolio.

Tweed has developed the Risk Register taking into consideration the consequence and likelihood of each risk, in accordance with the Risk Management Standards, AS/NZS 4360:2004.

The following tables have been utilised to determine the risk classifications.

Level	Descriptor	Detailed Description
1	Insignificant	No injuries, very low financial loss
2	Minor	Typically first aid type treatment required, low financial loss
3	Moderate	Medical treatment required, medium financial loss
4	Major	Extensive injuries, major financial loss
5	Catastrophic	Resultant in death, huge financial loss

Qualitative Measures of Consequence – AS/NZS 4360:2004

Level	Descriptor	Detailed Description
A	Almost certain	Is expected to occur in most circumstances
B	Likely	Will probably occur in most circumstances

C	Possible	Might occur, some time
D	Unlikely	Could occur, some time
E	Rare	May occur, but only in exceptional circumstances

Qualitative Measures of Likelihood – AS/NZS 4360:2004

Project Level Risk Evaluation Process

Likelihood		Consequences				
		Insignificant 1	Minor 2	Moderate 3	Major 4	Catastrophic 5
	Rare	H	H	E	E	E
A	Un-likely	M	H	H	E	E
B	Likely	L	M	H	E	E
C	Highly likely	L	L	M	H	E
D	Almost certain	L	L	M	H	H

Priority Ratings Legend

Extreme (E)	Imperative that project be programmed immediately. Cannot wait until next budget period.
High (H)	Important that action be taken as soon as possible. Response Time rules as per the Performance Standards apply.
Medium (M)	Action should be taken as soon as practicable. Response Time rules as per Performance Standards apply. Budget may dictate timing.
Low (L)	Action should be taken when possible. May be dealt with after other, more immediate priorities actioned. Evaluation may be made to defer action until other, more immediate priorities are completed. Action may take place whilst undertaking normal working practices & utilising general budget.

The Tweed Shire recognises that prioritisation based on the project prioritisation risk matrix is critical in demonstrating reasonable and responsible asset management practices.

Current Plant and Fleet Risk Management Matrix

The Tweed Shire acknowledges that risk management is an essential part of best practice asset management. Council considers risk management as the application of formal processes of a range of various and possible factors which can be associated to risk to determine the resultant scenarios of outcomes and their possibility to occur.

A risk assessment of the Tweed Shire's Plant and Fleet and associated activities is shown in the table below:

Risk	Likelihood	Consequence	Rating	Existing Controls	New Strategies
Heavy machinery not properly operated by Council staff.	Rare, May occur in exceptional circumstances	Death, Catastrophic	High	Appropriate training in the use of the asset is undertaken prior to hand-over of the asset.	Ensure that all staff have appropriate skills / license via audits.
Unlicensed Council staff driving vehicles.	Unlikely, could occur at some time.	Death, Catastrophic	Extreme	None	Undertake at regular intervals audits of currency of driver's licenses.
Passenger vehicles not properly operated by Council staff.	Unlikely, could occur at some time.	Death, Catastrophic	Extreme	None	Implement a process to ensure that all staff who drive vehicles, attend a defensive safety driving course.

Table 4- Plant and Fleet Risk Management Matrix

5.13 Life Cycle Costing Plan

5.13.1 How Much Capital Expenditure has been spent on Plant and Fleet Assets in the Past?

Capital expenditure refers to works undertaken to address major condition or service capacity issues such as replacement of aged Plant and Fleet (considered to be renewal expenditure as it returns the life or service potential of the asset to that which it had originally) or upgrading the asset from a particular design specification such as utility vehicle with no tray top to a utility vehicle with a tray top (considered to be upgrade expenditure as it enhances the existing asset to provide a higher level of service).

It should be noted that in the case of Tweed Shire, that the annual replacement provision is calculated as actual depreciation purchase cost less anticipated residual, divided by the projected years of ownership) plus opportunity cost.

The sum of these costs is used to identify the annual replacement provision. The annual operational and maintenance costs plus the annual replacement provision are used to calculate the assets whole of life cycle costs to develop accurate internal hire rates.

In the case of leasing, full recovery of lease costs should be achieved. Exceeding “budget” utilisation in a lease arrangement would incur additional payments to the leasing company and add to operating costs for the end user. This is in contrast to when the fleet is owned and increased utilisation results in reduced operating costs.

The following table identifies the Plant and Fleet capital expenditure for the three financial years to 2008/2009.

Capital Activity	2006-07	2007-08	2008-09
Cars & Utes Purchases	1,774,898	1,269,387	1,125,265
Commercial Heavy, Med & Light Purchase	1,641,801	938,368	1,254,337
Earthmoving & Agric Plant Purchase	1,024,895	1,704,237	308,255
Misc Plant >$5,000 Purchase	317,715	202,445	283,480
Misc Plant < $5,000 Purchase	101,713	30,935	41,724
	$4,861,022	**$4,145,372**	**$3,013,061**

Table 5 – Plant and Fleet Past Capital Expenditure

5.13.2 How Much Operational and Maintenance Expenditure has been spent on Plant and Fleet in the Past?

Routine maintenance refers to works undertaken to address minor defects such as changing the oil or spark plugs, fixing a door that will not close properly or servicing the air-conditioning. These treatment works are undertaken to keep Council’s Plant and Fleet in a safe and operational condition, but not necessarily to improve the overall condition of the Plant and Fleet.

It should be noted that when undertaking lifecycle modelling, these types of costs are taken into consideration by assuming that, each year, a number of scheduled services are undertaken on the assets with regards to scheduled maintenance.

If the Plant and Fleet are left to deteriorate or not replaced at an optimal time (i.e. sufficient capital expenditure is not allocated to renew these assets), then the amount of distresses being fixed under scheduled maintenance will increase and hence the scheduled maintenance expenditure required will also increase, as these assets age. Equally, if the condition of the Plant and Fleet improves (i.e. the assets stock is relatively new in age) then the scheduled maintenance expenditure required will decrease.

In addition, operation costs are costs that are required on a day to day basis to keep providing the asset in service. Such operational costs for delivery of the services provided by the Shire's Plant and Fleet assets include staff wages, fuel, insurance, registration, and administration.

Both the maintenance and operational costs are taken into account when developing whole of lifecycle costs or developing the assets day hire rate, along with the annual replacement provision.

Tweed Shire's past operational and maintenance expenditure along with the operational and maintenance expenditure allocated for the 2008/2009 financial year is shown in the following table below:

Operation & Maintenance Activity	2006/07	2007/08	2008/09 YTD
Administration	18,940	24,606	21,801
Fuels & Oils	5,133	7,433	7,122
Hire Expenses	0	16,079	261,261
Comprehensive Insurance	124,142	156,308	166,758
Insurance CTP	99,816	99,620	114,246
radio/telephone	14,597	11,824	3,025
Cutting Edge	8,780	9,016	17,647
Insurance Excess	70,188	66,991	47,814
Registration	136,706	145,719	161,311
Repairs	930,375	760,435	917,692
Servicing	318,576	309,703	337,108
Fuel	1,161,757	1,430,245	1,484,046
Tyres and Tracks	171,529	231,651	240,097
Plant Operator Maintenance	41,991	37,096	24,031
RDO Field Staff Equalisation	0	- 174	548
FBT	75,539	93,577	70,266
	$3,178,068	**$3,400,129**	**$3,874,774**

Table 6- Plant and Fleet Past Maintenance Expenditure

5.14 Forecasted Plant and Fleet Asset Funding Requirements

The objective of this Section has been to develop a capital replacement budget for The Tweed Shire's Plant and Fleet asset portfolio.

Plant and Fleet assets are not as straight forward as other infrastructure assets when it comes to prediction modelling. For most infrastructure assets, prediction models involve

developing life cycle paths and modelling the deterioration of the assets based on various intervention levels and treatment costs.

Whilst the same principles apply to Plant and Fleet assets, when it comes time to establish a 10 year replacement program for the case of Plant and Fleet, Council has utilised the following process:

- Identify the total whole of life cycle costs for each Plant and Fleet asset;
- Identify the optimal replacement point in the case of these assets, taking into consideration downtime costs (need to be aware of how machine downtime can affect business unit productivity), maintenance costs if the replacement of the asset is prolonged and the residual value of the asset if replacement is prolonged. It should be noted that The Tweed Shire has adopted a typical optimum replacement life of 10 years for the majority of its Plant and Fleet assets;
- It should also be noted that the Fleet Section recommends Plant and vehicle replacement reserves in order to ensure plant is replaced in a timely manner without the risk of deferring replacement because of lack of funding. Deferring replacements compounds costs by increasing maintenance costs, and reduces operational efficiency of service through downtime due to mechanical failure; and
- Identify downtime costs. Downtime costs have two major components:
    - Hire of a replacement machine. This also incorporates the cost of holding additional machines in order to compensate for the mechanical downtime on other machines. Dry hire of an externally supplied machine may involve on-site and off-site charges and these to need to be incorporated into the hire charges.
    - Fixed costs related to the loss of an operational machine on a specific task. The fixed costs of a machine are the costs incurred as a result of ownership. These include licence, insurance, finance costs and depreciation. In addition to the fixed costs related to the plant, it is necessary to establish a cost related to the operator's downtime, subject to whether or not the operator is allocated another chargeable job while his machine is down.

5.14.1 Asset Data Confidence Levels

This FAMP is based upon the best available information that was available at the time the plan was written. The following Table summarises the confidence levels of information contained in this FAMP.

Plant and Fleet Type	Confidence Rating				
	Quantity	Condition	Age	Performance	Overall
Light Vehicles	A	C	B	C	B
Heavy Vehicles	A	C	D	C	C
Light Plant and Equipment	A	C	C	C	C
Heavy Plant and Equipment	A	C	C	C	C

Table 7- Plant and Fleet Asset Data Confidence Rating

Confidence Grade	General Meaning
A	**Highly Reliable < 2% uncertainty** Data based on sound records, procedure, investigations and analysis which is properly documented and recognised as the best method of assessment
B	**Reliable ± 2-10% uncertainty** Data based on sound records, procedures, investigations, and analysis which is properly documented but has minor shortcomings' for example the data is old, some documentation is missing and reliance is placed on unconfirmed reports or some extrapolation.
C	**Reasonably Reliable ± 10 – 25 % uncertainty** Data based on sound records, procedures, investigations, and analysis which is properly documented but has minor shortcomings' for example the data is old or incomplete, some documentation is missing and reliance is placed on unconfirmed reports or significant extrapolation.
D	**Uncertain ± 25 –50% uncertainty** Data based on uncertain records, procedures, investigations and analysis which is incomplete or unsupported, or extrapolation from a limited sample for which grade A or B data is available.
E	**Very Uncertain > 50% uncertainty** Data based on unconfirmed verbal reports and/or cursory inspection and analysis

Table 8- Plant and Fleet Asset Data Confidence Grade

Note that uncertainty is cumulative. Therefore the uncertainty limits in financial forecasts will be the sum of the inaccuracies of the data and quality of assumptions that is used to produce it.

5.14.2 Snapshot of Council's Plant and Fleet Portfolio Age - Current Levels of Service

The following graph illustrates Tweed's Plant and Fleet Portfolio average age based on Council's adopted useful lives for its various Plant and Fleet assets. The graph shows the percentage of Council's portfolio in each category of useful life.

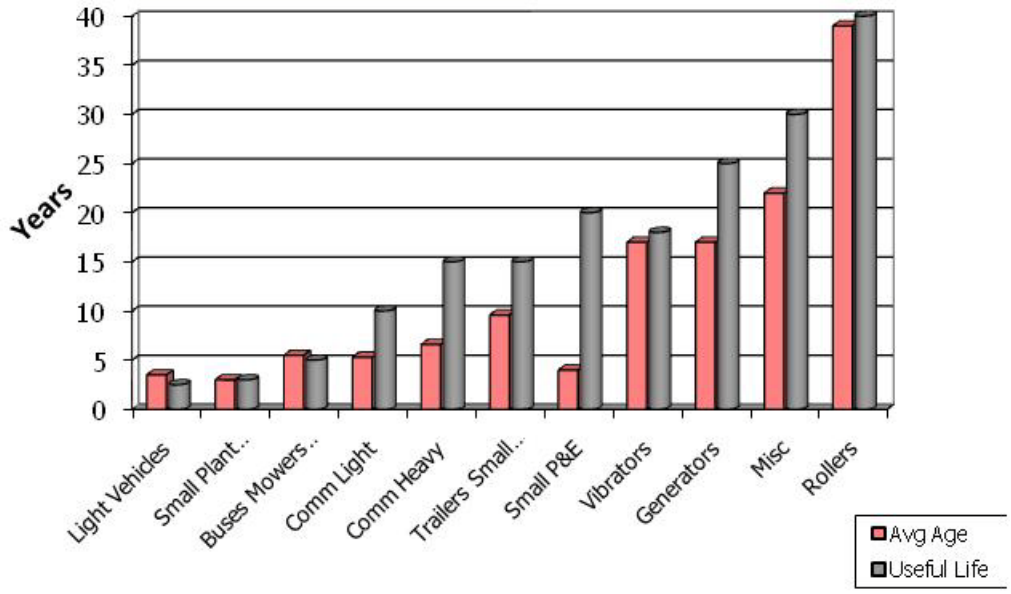

Diagram 7 – 2009 Snapshot of Age Profile of Plant and Fleet Portfolio

The above graph indicates that the average age of certain Plant and Fleet assets such light vehicles i.e. sedans and station wagons etc and small plant i.e. mowers, saws etc have exceeded or will reach their allocated useful lives.

This is cause for concern given that industry best practice indicates that to obtain optimal returns when disposing of these assets, requires timely replacement. The distribution of elapsed time since the original purchase date indicates that there are approximately over 300 separate pieces of Plant and Fleet assets that have reached the end of their useful life, presenting a backlog of approximately $5.5 million.

It must be noted, that these comments are general observations based purely on the expected lives of Plant and Fleet assets and that there are many other factors that can contribute to the requirement to replace or upgrade an asset.

5.14.3 Current Financial Scenario

It should be noted that the following financial strategy may change from year to year, as the financial models are based taking into consideration sale trends and depreciation. Sale trends, depreciation and other economic issues are not static and can change from year to year, which in turn affect the sale / trade values and hence will have an effect on the financial strategy.

Financial Year	Purchase Costs GST Exclusive $,000	Sales / Trade Value GST Exclusive $,000	NET Cost to TSC to Change the unit GST Exclusive $,000
2010-11	$2,226	$993	$1,233
2011-12	$4,307	$1,938	$2,370
2012-13	$4,212	$1,786	$2,426

2013-14	$6,642	$2,697	$3,945
2014-15	$5,300	$2,003	$3,297

Table 9 - ***Predicted Financial Funding Outputs for Plant and Fleet Assets Portfolio***

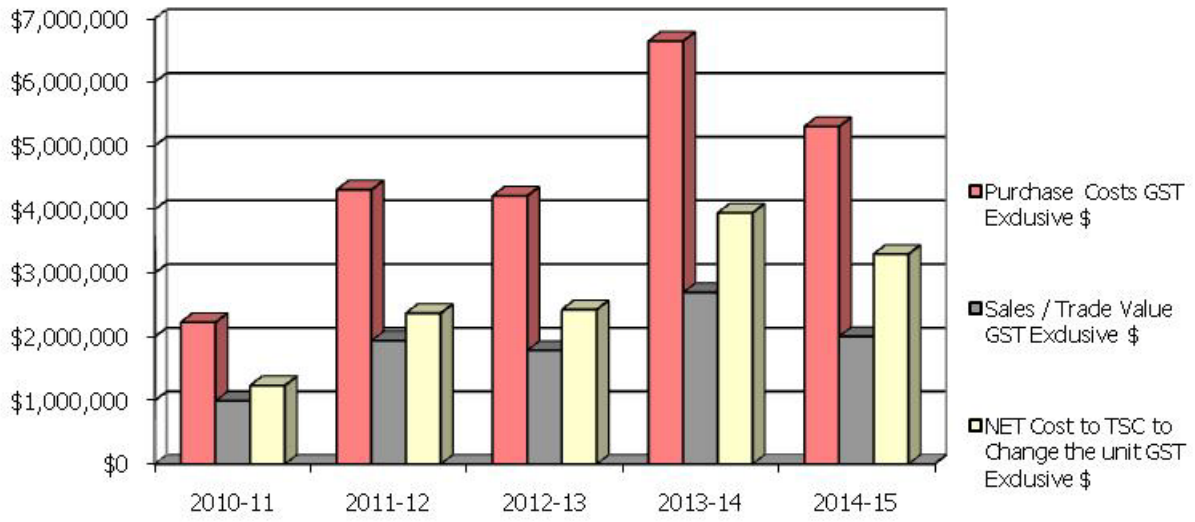

Diagram 8 – ***Predicted Financial Funding Outputs for Plant and Fleet Assets Portfolio***

6. Financial Summary

The provision of adequate financial resources ensures that the Plant and Fleet asset portfolio is appropriately managed and preserved. Financial provisions below requirements impacts directly on community servicing, and if prolonged results in substantial needs for “catch up” expenditure imposed on ratepayers in the future. Additionally, deferred renewal results in increased and escalating reactive maintenance as aged assets deteriorate at increasing rates.

For The Tweed Shire, additional factors occur compared to those experienced by more established regions in NSW. These refer to the urbanisation of areas within the Shire which impacts the Plant and Fleet asset portfolio, due to these increased / changing population trends which will require additional assets to provide the levels of service the community expects.

In-fact during the 2005-2006 budget period, Council’s then Administrator's wrote an open letter to the Tweed community signalling their intention to plan for infrastructure provision over a longer (7 year) period and to seek the communities endorsement to implement a series of rate rises above the CPI in order to finance any new initiatives.

They identified that it was imperative that the community gets the infrastructure and services it needs.

Tweed Shire Council's relatively low rates coupled with high community expectations, did not match Council's ability to fund new or expanded services without reducing existing service levels.

Conservative population growth projections suggest that the Tweed population may increase by an additional 40,000 people.

This Section supports the strategic allocation of financial resources over the long term so as to ensure that adequate provision is made by Council in order to sustain the benefits sought from the investment made.

6.1 Financial Statements and Projections

6.1.1 Past Financial Statement Expenditure

The following documents contain information pertaining to Council's past and future financial expenditure profiles and projections:

- Tweed Shire Council 2007-2008 and 2008-2009, 2009-2010 Budgets;
- Tweed Shire Council Management Plan 2007-2008, 2008-2009, 2009-2010; and
- Tweed Shire Council 2007-2008, 2008-2009 and 2009-2010 Annual Reports.

6.1.2 Future Financial Statement and Projections

The future financial projections for projected operating (operations and maintenance) and capital expenditure (renewal and upgrade/expansion/new assets) are documented in the:

- Long Term Financial Plan.

6.2 What are Council's Sources of Funding?

Funding for purchasing or maintaining Council's Plant and Fleet portfolio is obtained from Council's Plant Reserve, which is self funding.

All plant and vehicles have a hourly/monthly plant hire rate that funds purchases, running costs, FBT and fleet administrative charges. These hire rates are charges to jobs/projects at the timesheet or through departmental budgets.

The hire rates are reviewed annually to be as accurate as possible to produce a balanced reserve result over time.

6.3 What is Council's Adopted Financial Strategy for Plant and Fleet Assets?

The following table documents the required financial strategy allocation over the next 10 years. It should be acknowledged that the following capital works projected funding profile has been based upon the following criteria:

1. As assets reach their expected useful life, they are programmed for replacement in the following financial period.

	2010/11 ($,000)	2011/12 ($,000)	2012/13 ($,000)	2013/14 ($,000)	2014/15 ($,000)	2015/16 ($,000)	2016/17 ($,000)	2017/18 ($,000)	2018/19 ($,000)	2019/20 ($,000)
Administration	22.0	22.7	23.3	24.0	24.8	25.5	26.3	27.1	27.9	28.7
Fuels & Oils	7.2	7.4	7.6	7.9	8.1	8.3	8.6	8.9	9.1	9.4
Hire Expenses	261.0	268.8	276.9	285.2	293.8	302.6	311.6	321.0	330.6	340.5
Comprehensive Insurance	166.8	171.8	177.0	182.3	187.7	193.4	199.2	205.1	211.3	217.6

Insurance CTP	114.3	117.7	121.3	124.9	128.6	132.5	136.5	140.6	144.8	149.1
radio/telephone	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9
Cutting Edge	17.6	18.1	18.7	19.2	19.8	20.4	21.0	21.6	22.3	23.0
Insurance Excess	47.8	49.2	50.7	52.2	53.8	55.4	57.1	58.8	60.6	62.4
Registration	161.0	165.8	170.8	175.9	181.2	186.6	192.2	198.0	203.9	210.1
Repairs	918.0	945.5	973.9	1003.1	1033.2	1064.2	1096.1	1129.0	1162.9	1197.8
Servicing	337.0	347.1	357.5	368.2	379.3	390.7	402.4	414.5	426.9	439.7
Fuel	1,484.0	1528.5	1574.4	1621.6	1670.3	1720.4	1772.0	1825.1	1879.9	1936.3
Tyres and Tracks	240.0	247.2	254.6	262.3	270.1	278.2	286.6	295.2	304.0	313.1
Plant Operator Maintenance	24.0	24.7	25.5	26.2	27.0	27.8	28.7	29.5	30.4	31.3
RDO Field Staff Equalisation	548.0	564.4	581.4	598.8	616.8	635.3	654.3	674.0	694.2	715.0
FBT	70.2	72.3	74.5	76.7	79.0	81.4	83.8	86.3	88.9	91.6
Maintenance Total	4,421.9	4,554.6	4,691.2	4,831.9	4,976.9	5,126.2	5,280.0	5,438.4	5,601.5	5,769.6
Purchase Costs	4,350	2,226	4,308	4,212	6,642	4,328	4,328	4,328	4,328	4,328
Proceeds - Disposals	1,811	993	1,938	1,786	2,697	1,845	1,845	1,845	1,845	1,845
Capital Total	2,539	1,233	2,370	2,426	3,945	2,483	2,483	2,483	2,483	2,483

Table 10 – *Plant and Fleet Adopted Financial Strategy*

It must be noted that confidence in the current Financial Strategy profile is based on the current economic climate conditions and sale trends.

Should there be slight changes it is expected that so too will the Shire experience changes to the purchase costs and proceeds. From year 5, the purchase costs and proceed values have been determined using the current 5 year average.

As for maintenance, the predicted 10 year profile has been based on the current allocated maintenance budget and these values predicted into the future have been increased at a rate of 3% per annum, which equates to CPI increase annually.

7. Asset Management Practices

This section outlines the decision-making tools Council currently uses, to determine long term maintenance, renewal and upgrade expenditure for Plant and Fleet assets. Asset Management systems are generally categorised as follows:

- **Asset Management Systems** – The information support tool used to store and manipulate asset data.
- **Data** – Data available for interrogation by information systems to produce outputs.

7.1 Accounting / Financial Systems

Tweed Shire Council currently has the Technology One - Financials software system.

The Manager Financial Service has accountability and responsibility for this system.

7.2 Asset Management Systems

Tweed Shire Council currently utilises the 'Mex Fleet' software system for Asset Management purposes. The system stores inventory, attribute, condition, financial and historical data.

The Engineering and Operations Division has accountability and responsibility for this system.

7.3 Accounting Framework

The following Accounting Framework applies to Local Government in New South Wales:

- Local Government Code of Accounting Practice and Financial Reporting
- AASB 116 Property, Plant & Equipment – prescribes requirements for recognition and depreciation of property, plant and equipment assets
- AASB 136 Impairment of Assets – aims to ensure that assets are carried at amounts that are not in excess of their recoverable amounts
- AASB 108 Accounting Policies – specifies the policies that Council is to have for recognition of assets and depreciation

7.4 Tweed Corporate Accounting Policy

The Tweed's Corporate Accounting Procedures, identifies that the asset materiality threshold limit has been set at $2,000. This means that if Council spends less than this amount, that the created or purchased object is not considered an asset in terms of the accounting practices.

It is also considered that at this stage that there will not be any changes to the accounting/financial systems resulting from this FAMP.

7.5 Information Flow Requirements and Process

The key information flows into this FAMP are:

- The asset register data on material types, dimensions, age, replacement cost, remaining life of the asset;
- The unit rates for categories of work/material;
- The adopted service levels;
- Projections of various factors affecting future demand for services;
- Historical maintenance and capital works treatments;
- Correlations between maintenance and renewal, including decay models; and
- Data on new assets acquired by Council.

The key information flows from this infrastructure and asset management plan are:

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

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

Information is updated within 'Fleet Mex' on a as required basis.

8. Improvement Plan

8.1 Review of FAMP

Any Asset Management Plan must be a dynamic document, reflecting and responding to changes over time. A full review of the Plant and Fleet Assets Management Plan should take place every three to five years to document progress and set out proposals for the next five years.

Any review of this FAMP will, in addition to that set out above have, regard to:

- Asset performance following delivery of maintenance program;
- The level of achievement of asset management strategies against the expected benefits to Plant and Fleet users, stakeholders and the community; and
- The consideration of any external factors that is likely to influence the contents of this FAMP.

8.2 FAMP Improvement Program

Improvements	Urgency	Importance	Responsible Officer	Time Line	Policy or Procedure Required?
Policies and Guidelines					
Obtain Council approval for Future Funding Levels in this FAMP.	H	H	Manager Works	Immediate	Yes
Undertake a currency of License Audit of all staff who has access to vehicles and/or plant.	H	H	Co-ordinator Fleet	Immediate	Yes
Service Levels and Life Cycle Analysis					
Undertake work to monitor future demand requirements for new Plant and Fleet within the Shire.	M	H	Co-ordinator Fleet	18 months	No
Test the current levels of service, to determine 'a confidence level' for reasonableness.	M	M	Co-ordinator Fleet	12 months	No
Test the current levels of service to determine if they are achievable for current budgets.	M	M	Co-ordinator Fleet	12 months	No
Undertake work to ascertain future service delivery and demand requirements for Council's Plant and Fleet.	M	H	Co-ordinator Fleet	18 months	No
Undertake work to ascertain current utilisation of Council's Plant and Fleet.	M	H	Co-ordinator Fleet	18 months	No
Undertake work to ascertain current downtime costs of Council's Plant and Fleet.	M	H	Co-ordinator Fleet	18 months	No
Financial Planning					
Evaluate maintenance	M	H	Manager Works	12 months	No

Improvements	Urgency	Importance	Responsible Officer	Time Line	Policy or Procedure Required?
priorities and allocate appropriate funding.					
Asset Management Practices					
Implement integration within the Asset Management System software that has integrated capability for: • Asset register. • Works management. • Prediction	M	L	Manager Works & Manager Finance	24 months	No.
Develop process to ensure that asset condition data is transferred into Council's asset register, in a timely manner.	H	M	Co-ordinator Fleet	12 months	Procedures only
Develop process to ensure that treatment data is transferred into Council's asset register on an annual basis.	H	M	Co-ordinator Fleet	12 months	No but update business process manual.
Undertake work to ascertain if current Plant and Fleet stock has any assets surplus to needs and if so, implement a plan to dispose of these assets.	H	H	Co-ordinator Fleet	12 months	Procedures only
Look at current human resources to implement the FAMP.	H	M	Manager Works	12 months	No

9 References

1. Community Strategic Plan
2. NSW Local Government Act 1993
3. Roads Act 1993
4. Tweed Shire Financial Statements 2009 -2010
5. Tweed Shire Annual Report 2009-2010
6. Australian Bureau of Statistics Website
7. Tweed Shire Council Annual Report 2009-2010
8. Tweed Shire Urban Land Release Strategy February 2008
9. Tweed Shire Council, Community profile, communities working together May 2008

10 Glossary of Terms

Accrual Accounting: Recognition of revenues as they are earned and expenses as they are incurred.

Administration: Council staff.

Asset: Is an item with service potential or future economic benefits controlled by Council as a result of past transactions or other past events.

Asset Accounting: Is financial accounting as it relates to assets.

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.

Asset Register: A record of asset information considered worthy of separate identification including inventory, historical, financial, condition, construction, and technical information about each.

Asset Renewal: The process of improving the service potential an asset delivers through such methods as upgrade, refurbishment or replacement.

Asset Values: A determination of the value of the asset, which depends on the purpose for which it is required.

Capital Expenditure: Expenditure used to create new assets or to increase the capacity of existing assets beyond their original design capacity or service potential. Capital expenditure increases the value of the asset.

Components: Specific parts of an asset having independent physical or functional identity and having specific attributes such as different life expectancy, maintenance regimes, risk or criticality.

Condition Monitoring: Continuous or periodic inspection, assessment, measurement and interpretation of the resultant data, to indicate the condition of a specific component so as to determine the need for some preventative or remedial action.

Current Replacement Cost: The cost of replacing the service potential of an existing asset, by reference to some measure of capacity, with an appropriate modern equivalent asset.

Data Management The management of data that is held within the Corporate computer system to ensure its structure complies with the requirements and specifications of the system.

Depreciated Replacement Value: The replacement cost of an existing asset less an allowance for wear or consumption having regard for the remaining economic life of the existing asset.

Depreciation : The wearing out, consumption or other loss of value of an asset wether arising from use, passing of time or obsolescence through technological and market changes. It is accounted for by the allocation of the cost (or revalued amount) of the asset less its residual value over its useful life.

GIS: Geographic Information System. GIS is a system of computer software, hardware and data and personnel to help manipulate, analyse and present information that is tied to a spatial location.

Level of Service: The defined service quality for a particular activity (i.e. pit repair) against which service performance may be measured. Service levels usually relate to quality, quantity, reliability, responsiveness, environmental acceptability and cost.

Maintenance: All actions necessary for retaining an asset as near as practical to its original condition, but excluding rehabilitation**.**

The work needed to maintain an asset in a condition that enables it to reach its service potential and may expand the assets service life.

Note maintenance does not include modification of an asset from its original design.

Maintenance Program: A specific plan of identified maintenance activities to be undertaken & recorded for an asset or aggregation of assets.

Community Strategic Plan: A plan containing the long-term objectives and strategies of the community. Strategic plans have a strong external focus and identify major targets, actions and resource allocations relating to the long term survival, value and growth.

Performance Monitoring: Continuous or periodic quantitative assessments of the actual performance compared with specific objectives, targets or standards.

Planned Maintenance: Planned maintenance activities fall into three categories:

(i) Periodic - necessary to ensure the reliability or to sustain the design life of an asset.

(ii) Predictive - condition-monitoring activities used to predict failure.

(iii) Preventive - maintenance that can be initiated without routine or continuous checking (eg using information contained in maintenance manuals or manufactures' recommendations) and is not condition based.

Rehabilitation: Works to rebuild or replace parts or components of an asset, to restore it to a required functional condition and extend its life, which may incorporate some modification. Generally involves repairing the asset to deliver its original level of service (i.e. heavy patching of roads etc.) without resorting to significant upgrading or renewal, using available techniques and standards.

Renewal: Works to upgrade, refurbish or replace existing facilities with facilities of equivalent capacity or performance quality.

Repair: Action to restore an item to its previous condition after failure or damage.

Replacement: The complete replacement of an asset that has reached the end of its life, so as to provide a similar, or agreed alternative, level of service.

Replacement Cost: The cost of replacing an existing asset with a substantially identical new asset, in today’s dollar terms.

Residual Value: The net market or recoverable value, which would be realised from disposal of an asset or facility at the end of its life.

Risk Assessment: The process used to determine risk measurement priorities by evaluating and comparing the level of risk against predetermined standards, target risk levels and other criteria.

Risk Management: A management technique used to identify and analyse potential risks and to implement appropriate responses.

Useful life: The period over which a depreciable asset is expected to be used. The period over which a depreciable asset is expected to be used.

Valuation: Assessed asset value which may depend on the purpose for which the valuation is required, i.e. replacement value for determining maintenance levels, market value for lifecycle costing and optimised deprival value for tariff setting.

Written Down Value: Is the appropriate value of an asset in current dollar terms minus its accumulated depreciation.

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