

## 12.0 IMPROVEMENT PLAN AND MONITORING

### 12.1 Improvement Plan

Improving the management of Taupō District Council's (TDC) transport assets is a continual and ongoing process.

During the course of updating this plan, AM improvement tasks have been noted for follow-up over the next three years in conjunction with reviewing and improving this plan. This programme reflects the overall aim of improving asset management practices, which is to deliver the right level of service at the lowest long-term cost to TDC's customers. The highest improvement tasks all focus on meeting that goal by:

- Ensuring the right level of funding is being allocated to maintain the asset service potential.
- Implementing predictive modelling techniques that will allow consideration of alternative long term cost scenarios.
- Consulting with customers to ensure that their views are considered when selecting the best scenario.

#### 12.1.1 BACKGROUND

The AMP was independently peer reviewed in November 2004 and in August 2007 and improved in line with these reviews. Details from the latest review can be found in the report from NZTA: Road Controlling Authority Asset Management Plan Reviews – Taupō District Council summary, August 2007 written by GHD. From this review, the 2009 AMP is considered to reflect an 'intermediate' level of development however the areas such as Risk Management and Levels of Service are considered to be advanced.

NZTA undertook a technical audit in 2008 and a procedural audit in 2010. We are due for both the technical and procedural audit in the last quarter of 2017/2018. Audit NZ completed audits in 2009, 2012, 2015 and 2018 (draft) versions and the actions or recommendations for improvements from both these audits/reviews have been included in the following table.

The Water, Wastewater and Stormwater AMPs were independently peer reviewed in 2011 by Waugh consultants. A number of improvements were identified from this review to raise these AMPs from core to advanced, where appropriate. A detailed assessment has been done, where all asset managers have met regularly to discuss the methodology, on how to implement and manage these recommendations. The AMP group is collectively working through the Waugh report recommendations, in particular the 0 and 1 scores, to bring all AMPS up to the core level. Any other recommendations not completed during the updated AMP process cycle are added to the Improvement plan with dates etc which can be monitored. The AMP group collectively identify any changes/updates required to the main text and comments are made via this spreadsheet before any changes are made to individual AMPS.

A further peer review was undertaken of the three waters and transport in 2015, to compare where the three water AMPs were and to include the Transportation asset in the mix. From this a report was received and this AMP includes some of the recommendations from the report. Some of the recommendations have been included in the Improvement plan table below.

On going NAMS training is provided to all staff involved in the production of the asset management plans to facilitate the best management of the assets.

## 12.2 Improvement Programme

### 12.2.1 IMPROVEMENT PLAN FROM PREVIOUS AMPS

Below is a list of all the improvements and recommendations from previous AMP versions and their progress/status to date.

Task ID	Area for improvement	Weak areas identified in audit of AMP <sup>1</sup>	Action/task description	Priority	Target date	Cost/resources	Status
1.0	Introduction						
1.1	AMP Development	Yes	Identify who has been involved in the preparation of the AMP (internally and externally). AMP to be signed off and communicated to higher levels.	1	2008	2	Completed
1.2	Corporate basis	Yes	Develop AM Policy and AM strategy.	2	2010		To be developed at Corporate level Infrastructure strategy to be developed for 30 year.
1.3		Yes	Council to formally manage the development of the AMPs on a corporate basis to ensure a common and consistent approach and approved templates.	2	2010		To be developed at Corporate level Completed with 2011 AMP
1.4	Quality Assurance	Yes	Identify what QA procedures have been put in place (internally and externally).	2	2009	20	Completed (August to October 2010)
1.5	Links to other documents	Yes	Show clear linkage to District Plan/Growth Strategy plans in AMP.	2	2008	2	Completed with 2011 AMP update
1.6	Linkages to Transport Related Plans	Yes	Show clear linkages to LTP, Walking/Cycling, Waikato Regional Land Transport Strategy & other strategies.	1	2009	2	Walking and Cycling strategy updated and reviewed in 2009, adopted by Council in 2010. Completed with 2011 AMP update
1.7	Other Council Plans	Yes	Show clear linkages to other AMP's and Policies and plans.	3	2008	2	Completed with 2011 AMP update
1.8	Sustainability	Yes	Include a specific policy relating to sustainability and this be reflected in TDC's practices.				Need to discuss with SLG as to whether this will be Corporate wide policy. No policy developed
1.9			AMP needs to be consistent with LTP with regards to level of service. Look at including separate assumption section in next AMP.	2	2010		To be developed in conjunction with the templates. Completed. Separate assumption section developed for 2011 AMP, refer section 3.
2.0	Definitions		Add definitions to 2011 AMP.				Completed
3.0	Assumptions		Add assumptions as separate section.				Completed
4.0	Asset Data						
4.1	Asset register	Improvement	Inventories to be completed for all traffic services (including signs & facilities), street lighting & poles, structures & culverts. This was noted in the latest peer review of the August 2008 Asset Valuation.  Determine historical expenditure on all traffic services.	1	2013/14	10	Identified in last AMP improvement plan and noted in peer review.  Completed historical expenditure as seen in section 8.
4.2	Data	Improvement	Determine number of parking spaces in each of the parking areas in asset valuation.	1	2013	8	Moved to current Improvement Plan (see below)
4.3	Asset register	Improvement	Continue to maintain, develop and improve the asset component register. Continue to monitor new developments in RAMM for any improvements in its asset valuation programme.		Ongoing		Identified in asset valuation report review. Moved to current Improvement Plan (see below)
5.0	Level of Service						
5.1			Gauge customer opinion more thoroughly as part of	2	2008		Part of customer Decision by SLG group not to

<sup>1</sup> Weak areas identified in NZTA report for RCA Asset Management Plan reviews dated August 2008 and audit undertaken by Audit NZ August 2009, improvements identified by Transport team in last AMP update.

Task ID	Area for improvement	Weak areas identified in audit of AMP <sup>1</sup>	Action/task description	Priority	Target date	Cost/resources	
			increased consultation.				satisfac
5.2			Set up deficiency database & include customer complaints/issues.		2010		Deficie set up criteria
5.3		Yes	Technical measures to be linked to the costs of the service to ensure the asset can provide the service required by the community at an affordable level.		2011		Noted s opinion Expo 2
6.0	Demand Management						
6.1			Update this section when growth model is reviewed in line with Development Contributions policy review.	2	Ongoing		
6.2			Include section in the AMP on new subdivisions/assets gained.				Update necess
7.0	Risk						
7.1		Yes	Consider the costing of risks for major, strategic and critical assets.	1	2013	40+	To be c corpora
8.0	Lifecycle						
8.0	Breadth & Depth of coverage	Improvement	Adequately describe the assets/features for street furniture.	3	2013	6	
8.1	Condition & performance	Yes	Show how the information is being fed into decision making	3	2013	20	
8.2	Asset Renewals & reseals	Yes	Clearly outline deferred renewals and how they are delivered.	3	2013	40	
8.3	General	Improvement	Consider devaluing assets based on condition rather than birthday life (maybe utilise dTIMS).  Research whether dTIMS will provide the necessary information to value by condition, or whether additional data will need to be collected.  Implement the necessary procedures for the revaluation.  Include disposal strategies where appropriate.	3	2015+	130+	Could b hours p costs to
8.4	Pavement	Improvement	Incorporate predictive modelling outcomes from dTIMS.	3	2013	40+	
8.5	Footpaths	Improvement	Include details of footpaths in identification	3	2013	40+	Foot

Task ID	Area for improvement	Weak areas identified in audit of AMP <sup>1</sup>	Action/task description	Priority	Target date	Cost/resources	
9.1	Valuations		AMP is to be updated the data from the August 2008 asset valuation data.	3	2009/2010	10	Asset V comple 2014
9.2			Review financial cash flows annually	1	Each year	40	
9.3	Confidence levels		Develop confidence levels for financial data (opex, renewals & capex) similar to the other infrastructure AMPs have in their financial section. This is in response to having to provide an explanation of how the rating has been assessed in each case across the 30 years.		2015	5	
10.0	Asset Management Systems						
10.1	ODM tools & techniques	Yes	Consider the use of a MCA (multi-criteria analysis) model accounts for the four well-beings	3	2015	External 20 hrs.	
10.2	Improvement Programme		To be monitored and updated regularly				
10.3	Gap analysis		Update improvement plan to show the extent of the gap between existing practice and best practice.	2	2015	40	
10.4	QA process		Need to develop process for verifying traffic counting data		2015		
11.0	Improvement Plan						
11.1	Continuity Plans		Consider developing continuity plans in case of emergency or natural disasters.		2015+		
11.2	Respond to external Asset management plan review		Finalise prioritisation and timing of improvement tasks	1	2014/15	Internal TDC	In prog
11.3	Respond to external Asset management plan review		Implement improvement tasks that scored 0-2	1	To be determined	Internal TDC	Awaitin task to

**Table 12.1: Improvement Plan**

### 12.2.2 CURRENT IMPROVEMENT PROGRAMME

We are currently undertaking a detailed audit of all of our roading assets in our RAMM database. This audit is to rectify anomalies in order to arrive at a consistent set of data for all of our roading assets. In conjunction with this audit, we are assessing the database standards for local roads provided by Auckland Transport with the intention of ensuring consistency with the TDC assets officer when inputting data into RAMM. This concern was also identified in the ONRC transition plan to improve data collection and requirements.

Tasks to be identified to improve the current data are shown in the table below.

Along with this audit, the following table is the current Improvement plan as mentioned was required in the last Waugh review. Many of the areas of improvement are being addressed through a Business Case approach and the need to produce more accurate data on each asset type/activity.

Task ID	Area for improvement	Weak areas identified in audit of AMP <sup>2</sup>	Action/task description	Priority	Target date	Cost/resources	
<b>1.0</b>	<b>Strategic case</b>						
<b>2.0</b>	<b>Introduction</b>						
<b>3.0</b>	<b>Definitions</b>						
<b>4.0</b>	<b>Assumptions</b>						
	Assumptions	Yes - Waugh report	Assumptions are listed however are limited and not assessed	1	2017	1	In house
<b>5.0</b>	<b>Asset Data</b>						
	Asset data	NZTA technical audit 2008	Amend the current values in RAMM database default surface life table to values that reflect the local condition and/or achieved pavement life.				
		NZTA technical audit 2008	Review the traffic count data in RAMM database and ensure all estimates are current.				
		OPUS valuation report 2017	Improve record of asset condition and performance ratings to better estimate remaining asset lives.  Review lives for pavement top-surface and sub-surface assets.		2019		In-house contractors/managers/asset team
	Parking		Determine number of parking spaces in each of the parking areas in asset valuation	2	2018	10	
	Asset register	Improvement	Continue to maintain, develop and improve the asset component register. Continue to monitor new developments in RAMM for any improvements in its asset valuation programme.  Undertake condition assessments of all culverts, railings and minor structures and add the condition rating to each asset in RAMM.	1	Ongoing		In-house asset

Task ID	Area for improvement	Weak areas identified in audit of AMP <sup>2</sup>	Action/task description	Priority	Target date	Cost/resources	
			for renewal of existing assets and new assets.  Create a data file of all capital construction works to record actual project costs.				
	Data		Need to update bridge section with the latest information from bridge inspection report.				
<b>6.0</b>	<b>Levels of Service</b>						
		Yes – Waugh report	The organisation’s Strategic Directions, Community Outcomes, are not clearly linked, or aligned with the Levels of Service as presented.				
		Yes – Waugh report	Levels of service are extensive and not very intuitive. No trend of achievement to date has been provided or is discussed.				
		Yes – Waugh report	Levels of service were last consulted on 12 years ago. This was also identified in the ONRC transition plan.	1			Research report completed.
<b>7.0</b>	<b>Demand Management</b>						
			Include section in the AMP on new subdivision/assets gained		Ongoing	1	In house
		Yes – Waugh report	Details of traffic count process is provided but there are no data or trends shown				In house
		Yes – Waugh report	There is very little discussion on HCVs and HPMVs – this should be incorporated in the growth and demand (or risk) section				In house
<b>8.0</b>	<b>Risk</b>						
			Consider the risks for major, strategic and critical assets				To be done at council level
		Yes – Waugh report	Need to add to risk register any buildings and/or structures which are likely to fall eg verandahs or streetlights which is a risk to pedestrians and/or footpaths	2		1	In house
		Yes – Waugh report	There is no introduction or explanation to Tables 7.6 and 7.7	1		1	In house
		NZTA technical report 2009	Council need to reassess the maintenance programme spend, in particular the escalation allowance, to ensure it is sufficient to cover the cost of maintaining the				

Task ID	Area for improvement	Weak areas identified in audit of AMP <sup>2</sup>	Action/task description	Priority	Target date	Cost/resources	
	performance		making				
	Asset Renewals and reseals	Yes	Clearly outline deferred renewals and how they are delivered				
	New subdivision	NZTA technical audit	Council consider amending tis Code of Practice to require the use of AC surfacing in areas/developments.				
	General	Improvement	<p>Consider devaluing assets based on condition rather than birthday life (maybe utilise dTIMS).</p> <p>Research whether dTIMS will provide the necessary information to value by condition, or whether additional data will need to be collected.</p> <p>Implement the necessary procedures for the revaluation.</p> <p>Include disposal strategies where appropriate</p>				<p>In house audit</p> <p>IDS to undertake pavement mod data is improve</p>
	General	Improvement	Need to include speed management plan in the next AMP.				In house/ Trans and Policy team
<b>10.0</b>	<b>Financial Information</b>						
	Confidence levels		Develop confidence levels for financial data (opex, renewals & capex) similar to the other infrastructure AMPs have in their financial section. This is in response to having to provide an explanation of how the rating has been assessed in each case across the 30 years.				
			The financial section does not differentiate works that attract non- Council funding (subsidised and non-subsidised).				
	Valuation	OPUS valuation report 2017	Consider running future valuations within the RAMM asset register using the RAMM valuation Module.				
	Depreciation	OPUS valuation report 2017	Improve depreciations assessment of drainage channels for roading (rural)				
<b>11.0</b>	<b>Asset Management</b>						

Task ID	Area for improvement	Weak areas identified in audit of AMP <sup>2</sup>	Action/task description	Priority	Target date	Cost/resources
			2012.  Need to monitor cycles of grading etc on unsealed roads to see if expenditure is warranted or more renewal required.			
	Gap analysis – footpaths		Undertake regular pedestrian counts to assist to identify need and prioritise construction of new footpaths or sections of footpaths particularly with ageing population.	2		Students to be \$16/hour \$640
	Gap analysis – drainage/structures		Monitor and record where flooding occurs.  Record when and where road closures occur and the time the road is closed plus reason why they have closed.  Need to undertake regular detailed inspection of culverts.  Develop alternative route maps for where road closures occur and where HPMV vehicles would not be permitted.  Update RAMM data with missing data on bridge and culvert structures. This was identified in the ONRC transition plan	1	2017	In house, discuss NZTA where SH involved.  In house – asset team
	Gap analysis – streetlighting		Pole condition and pole outreach condition is unknown.  Lighting design will be required for all V category and some streets may need infill lighting to be added post LED conversion.	1	2018	Could be done as part of the LED conversion contract. Have allowed \$ for any infill LED lighting required post conversion.
	Gap analysis – environmental maintenance		Need to record where stock effluent is an issue on the road and/or where a spill has occurred.  Identify routes where loose chip or seal is an issue for road users and develop a programme to sweep these regularly for road safety.	2  1	2018	In house, work with other providers
	Gap analysis – traffic services		Develop and/or use Kiwirap system for local roads.  Identify or record where traffic services are being	2		



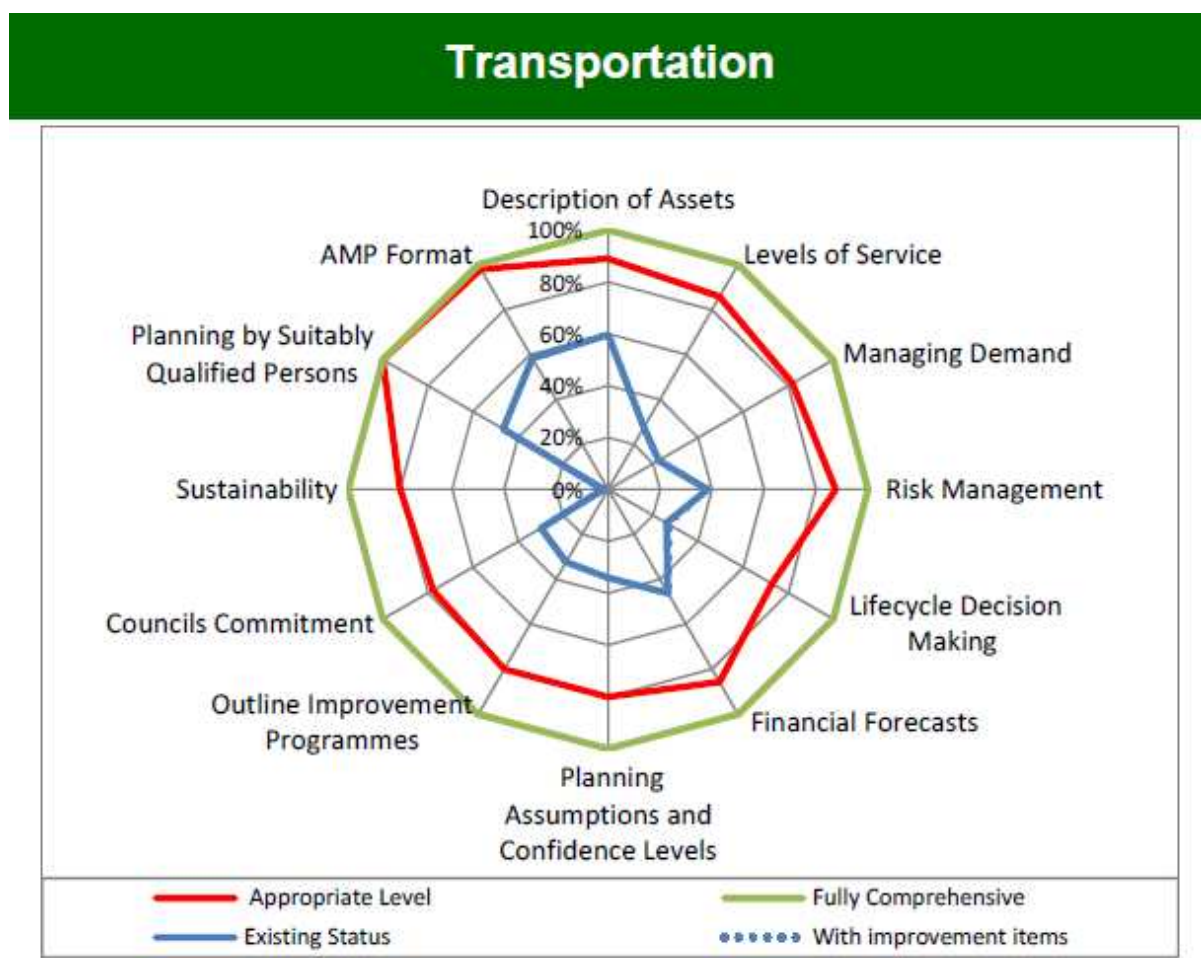
### 12.2.3 COMPLETED IMPROVEMENT PLAN TASKS

The following is a list of improvement plan tasks that have been completed or are in progress since the development of the 2015 Asset Management Plan.

- Council formally manage the development of the AMPs on a corporate basis to ensure a common and consistent approach and approved templates.
- The latest valuation data from August 2017 has been incorporated into this AMP.
- AMP is consistent with LTP with regards to level of service.
- Separate assumption section and definition section included.
- Continuation with the recommendations from the Waugh consultants peer review of the 3 water AMPs –with zero or one have been incorporated into this AMP, the other recommendations have been added to this improvement plan.
- Critical assets are continuing to be identified by asset managers and mapped to see any overlaps.
- Undertook dTIMS modelling and incorporated some of the outcomes into the AMP, some further improvements in data are required for the next modelling run.
- Business case approach used.

### 12.3 Opportunities to improve AMPs

An external peer review is to be undertaken again in 2018 to see if there has been any improvement from the last Waugh peer review.



Audit New Zealand's report to council proposed the following specific areas where the AMPs could be improved further. The following table 11.2 demonstrates where this to be incorporated into relevant section of AMP.

<b>Opportunities</b>	<b>Proposed by Audit NZ</b>	<b>Comments</b>
Control environment	Including within the AMPs a reference to the "Corporate Activity Plan Framework", and potentially renaming this document to "Asset Management Policy".	Refer section 5
	Detailing in the AMPs if and to what external reviews occur of the targeted level of sophistication.	Refer section 11.1.1
	Detailing in the AMPs involvement by councillors, including the reviewing and approving of the AMPs.	Refer section (GOA)
Reliability	Though the Council has valuations performed and use the data to inform asset planning, the AMPs do not detail the valuation process.	Refer section 4.1.1
	Condition assessments are performed, however the condition grading model as per the NAMS IIMM manual is not detailed in the AMPs.	Refer section 10.4.4
	The AMPs detail regarding the Council's asset management quality assurance processes to ensure integrity of asset data is too brief in the AMPs.	Refer section 4.3 & 10.4.6
Links to lifecycle strategies and cost estimates	The asset lifecycles and asset management processes within AMPs are at a very high level and would benefit from greater granularity.	Refer improvement plan section
	Further work is required to identify and classify the criticality of all assets and their significance to planning.	Refer section 7.7
	Asset maintenance activities within AMPs are at a very high level and would benefit from greater granularity.	Refer improvement section and work sheets
Basis of financial forecasts	Expanding the capital expenditure linkage detail within the AMPs to include linking capital expenditure to demand, maintenance or renewal, in addition to Levels of Service.	Refer section 5.3.1
Levels of service	Detailing within the AMPs the process for monitoring and reporting performance against the levels of service, beyond customer feedback processes.	Refer section 5.3
Integration with other plans	Include within the AMPs a description of process to ensure AMP's link to, and are consistent with, other planning information.	Refer section 1.1.4

**Table 12.2 Audit NZ recommendations from last audit**

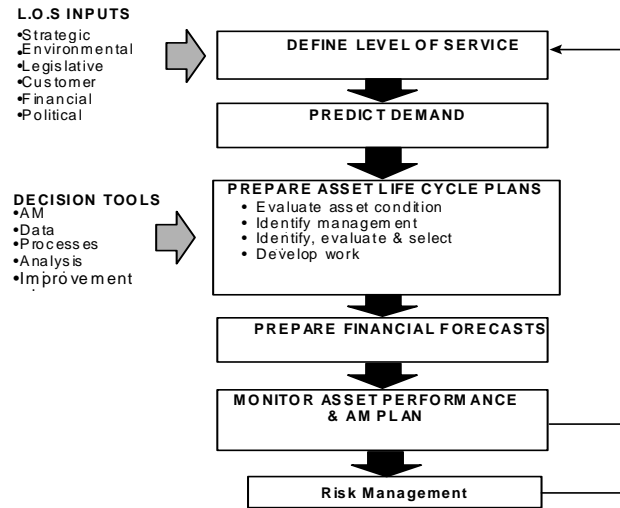
### 12.3 Monitoring & Review Procedures

The most important review procedure is the 3-yearly review of the AMP that takes into account asset performance during the previous 3 years and identifies future trends and input into Council's strategic planning process. The 3 yearly cycle of TDC's strategic planning is shown below.

Year	2013	2014	2015	2016	2017	2018
Activity	Structure planning	Review of asset management plans	LTP amendment	Structure planning	Review of asset management plans	LTP amendment

**Figure 12.1: TDC Three Yearly Planning Cycle**

The framework for the 3-yearly review of the AMP in terms of the breadth of considerations is illustrated in the following figure.



**Figure 2: Asset Management Plan Review Procedure**