

11.0 IMPROVEMENT PLAN AND MONITORING

11.1 Improvement Plan

Improving the management of Taupo District Council's wastewater assets is a continual and on-going 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.
- On-going NAMS training is provided for staff involved in the production of the asset management plans to facilitate best management of the assets. Asset Managers participate in the Council's asset management planning team which facilitates improvements in planning for all categories of assets.

11.1.1 BACKGROUND

The Asset Management Plan (AMP) has been updated during 2007, 2008, 2010 and 2014 to reflect changes in national policy and local thinking.

Audit NZ completed audits in 2009 and 2012 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 methodology chosen to implement these improvements was to filter all individual scores from 0 to 5 and give a higher priority to those with a 0 or 1 score particularly where the consequence of not doing these is major. Further detail on the improvements/actions can be found in objective document ID A866652.

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.

11.2 Improvement Programme

Resources (cost and time) have yet to be approved and are only estimates at the time of updating AMP. These may need to be reviewed when task is in progress to judge if timeframe and cost is realistic.

Task ID	Area for improvement	Weak areas identified in audit of AMP ¹	Action/task description	Priority	Target date	Cost/resources		Status
						Cost \$	Progress/ comments	
1	Asset Register	Improvement	Inventories and condition assessment to be completed for all water treatment plants, reservoir and pump stations (including toby, Fire hydrant, valves & meters). This was first noted in the peer review of the Asset Valuation completed in 2009. Determine historical expenditure on all water services.	1	2018		Identified in last AMP improvement plan and noted in peer review	Ongoing and target is to complete by 2018 in new AMS.
2	Asset Register	Improvement	Continue to maintain, develop and improve the asset register. Continue to monitor new developments in AMS for any improvements in its asset valuation programme.		Ongoing		Identified in asset valuation report review.	
3	Asset Register	Yes	Asset condition and asset performance data in addition to asset age and physical description to be included in the AMP.		2018	Additional staff	Identified in asset valuation report review.	In progress
4	DWSNZ	Improvement	Determine improvement required as per catchment assessment and risk management plan to meet DWSNZ.	1	2018		Water safety plans completed. Ongoing update process in place.	A number of WSPs and CRAs being updated in 2018.
5	Level of Service		Gauge customer opinion more thoroughly as part of increased consultation.	2	2021		Part of customer satisfaction survey.	A level of service consultation has not been undertaken as part of the preparation of the 2018 – 28 LTP. Further consideration to consult will occur when Council begins the 2021 – 31 LTP process
6	Level of Service		Set up deficiency database & include customer complaints/issues.		2018		Deficiency database (service request) set up based on LoS criteria	A review to upgrade the system is on-going
7	Risk	Yes	Consider the costing of risks for major, strategic and critical assets	1	2018	Staff time	The improvement plans are scheduled based on PHRMP and condition assessment by operations staff.	Business continuity plan finalised (Obj ref A1009551)
8	Condition & performance	Yes	Show how the information is being fed into decision making	3	Ongoing		Leak detection surveys are conducted in Taupo and Turangi underground water mains. The identified leaks are fixed through routine maintenance contract.	There is a gradual replacement programme currently in place. The assets in the worst condition and in the more critical areas are being replaced first.
9	Asset Renewals	Yes	Investigate renewal optimisation particularly for non-growth / declining growth areas to maintain the LOS. Example: In declining growth areas could we put in less capacity when we renew Clearly outline deferred renewals and how they are	3	Ongoing		Based on the current condition assessment data the renewals are planned and budgeted.	The identification of renewal is ongoing particularly for network dead ends and supply pressure complaints. But

¹ Weak areas identified in audit undertaken by Audit NZ August 2008, improvements identified by Corporate & Infrastructure team in AMP update.

Task ID	Area for improvement	Weak areas identified in audit of AMP ¹	Action/task description	Priority	Target date	Cost/resources		Status
						Cost \$	Progress/ comments	
			delivered.					the non-planned maintenance is based on historical average cost.
10	General	Improvement	Consider devaluing assets based on condition rather than birthday life. Implement the necessary procedures for the revaluation. Include disposal strategies where appropriate.	2	Ongoing		Condition assessment and updating asset register is ongoing.	Ongoing
11	Distribution network		Model Water Networks and preparation of upgrade programme particularly for Taupo, Acacia bay and Kinloch.	2	2014		AWT was commissioned to carry out network calibration and modelling for Taupo town.	Ongoing, Taupo and connection of Taupo to Acacia Bay complete. Upgrade programme developed.
12	Distribution network	Improvement	Incorporate predictive modelling outcomes from InfoWorks water model for growth areas and or complex distribution zones.	3		Refer 5.2	Taupo town modelling was completed by AWT. This will be validated as a continual process for other growth areas	Limited or no growth. This will be required for growth areas only
13	Resource consent		Renewal of Resource Consent for each water supply schemes.	1	2018		The resource consent renewals applications are made on scheduled dates	Future renewals of consent are scheduled six month ahead of the due date.
14	Valuations		AMP is to be updated the data from the August 2013 asset valuation data.	3	2018		Asset Valuation completed in 2013	Data will be updated for 2018 AMP.
15	Financial Information		Review financial cash flows annually	1	Each year		Finance team	Ongoing.
16	ODM tools & techniques	Yes	Consider cost benefit and option analysis for capital expenditure.	2	Ongoing		On-going where appropriate	On-going where appropriate
17	Improvement Programme		To be monitored and updated regularly					Ongoing
18	Respond to external Asset management plan review		Implement improvement tasks that scored 0-2	1	2018	Internal TDC	Waiting for above task to be completed.	Planning

Table 11-1: Improvement Plan

11.2.1 COMPLETED IMPROVEMENT PLAN TASKS

Following is a list of Improvement Plan Tasks that have been completed since the development of the 2012 Asset Management Plan.

- Develop an asset condition register for each Water Treatment Plant and subsequent renewals programme.
- Implementation of Public Health Risk Management Plan for each scheme.
- Preparation of a capital and operational improvement programme for the Water supply schemes for the upgrades to the WTP's to meet the DWSNZ.
- Investigation into the Connection of Bonshaw Park and Waitahanui Water Scheme to Taupo.
- Adequate description about the assets/features for water supply in lifecycle management section.
- Kinloch Service Plan.
- Renewal of water takes consent for, Omori, Lake Terrace (Taupo North), Whareroa.
- Transfer of 6,975 m³ to Taupo, Motuoapa and Motutere from Rainbow Point. 9 rainbow point will have max consented volume of 7,100 m³
- Centennial drive (Bore) – The renewal application was filed in July 2008, due to excessive cost of managing the consent and source council has decided to utilize river source to supplement the water required for Rakanui Industrial area and handover consent back to WRC.
- Upgrade of the Turangi and Mangakino WTP based on Capital Assistance by Ministry of Health (MoH) as per to meet compliance with DWSNZ and HDWAA.
- Approval of capital assistance application to Ministry of Health for Waitahanui to meet compliance with DWSNZ and HDWAA.
- A new section added to Amp for Acronyms and abbreviations.
- Updating of Water Treatment Plant Management Plans – Lake Terrace, Rainbow Point, Acacia Bay, Turangi, Omori, Whareroa, Waitahanui, and Motutere.
- Upgrade of the Telemetry system and introduction of the Historian data presentation software.
- Continuous monitoring of the all intake source for accurate consumption / production capacity graphs for all schemes.
- Installation of the Bulk flow meter in Taupo town and Kinloch to assess the network demand , night flows and water loss.
- Review the quantity and pressure of Fire water supply available according to SNZ PAS 4509:2008 for all urban fire zones.
- Change management is incorporated into section 6 of future demand.
- Water Demand Management Plan review in progress
- Update of Water Bylaw.
- Replacement of in-house AMS with Asset Finda.
- Identify who has been involved in the preparation of the AMP (internally and externally). AMP to be signed off and communicated to higher levels
- Show clear linkages to LTP, Waikato Regional Council Policy, Water supply strategy and demand management plans (WDMP).
- Update capital & operational improvement plan to show the extent of the gap between existing practice and best practice/ legislation requirement.
- Business continuity plan finalised

11.3 Opportunities to improve AMPs

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

Opportunities	Proposed by Audit NZ	Comments
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 5.4 For consistency purpose renaming not considered
	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 1.6.2
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 sheet
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	Refer section 5.3

Opportunities	Proposed by Audit NZ	Comments
	processes.	
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
	Include within the AMPs a description of AMP linkages to specific council policies and the reason and impact of such linkages.	Refer section 1.1.4

Table 11-2: Opportunities to improve AMP

11.4 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 strategic planning is as shown in below.

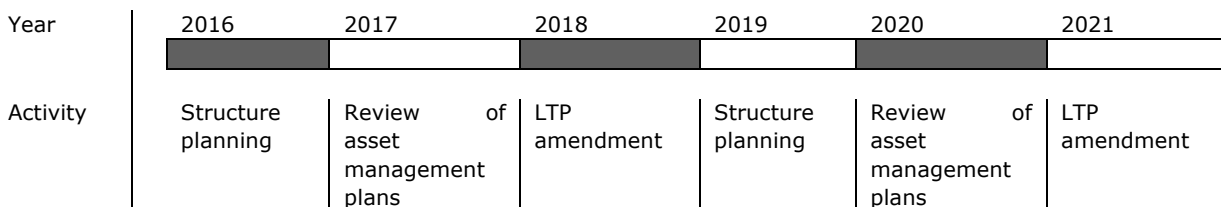


Figure 1: TDC Three Yearly Planning Cycle

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

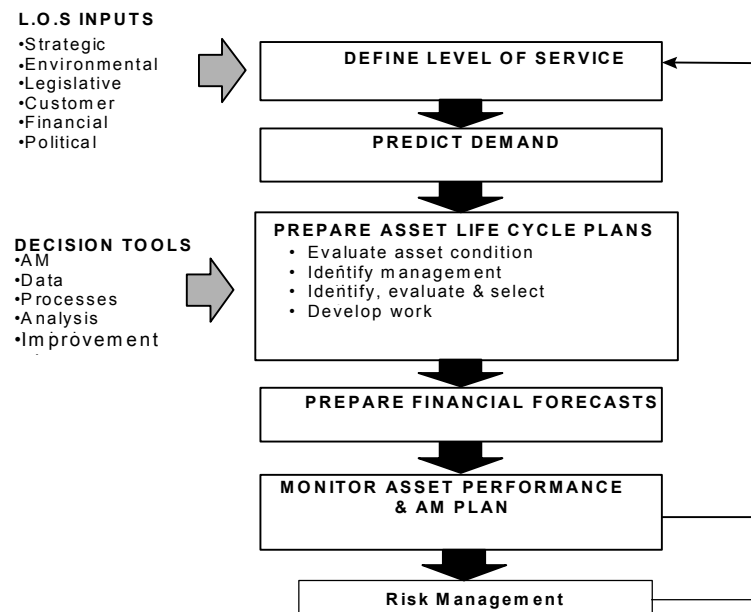


Figure 2: Asset Management Plan Review Procedure