# 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.

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## 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[1] | 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.<br><br>Determine historical expenditure on all traffic services. | 1 | 2013/14 | 10 | Identified in last AMP improvement plan and noted in peer review. | Near completion<br><br>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 |

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[1] 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[1] | 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 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 corpor |
| 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).<br><br>Research whether dTIMS will provide the necessary information to value by condition, or whether additional data will need to be collected.<br><br>Implement the necessary procedures for the revaluation.<br><br>Include disposal strategies where appropriate. | 3 | 2015+ | 130+ | Could hours costs t |
| 8.4 | Pavement | Improvement | Incorporate predictive modelling outcomes from dTIMS. | 3 | 2013 | 40+ | |

| Task ID | Area for improvement | Weak areas identified in audit of AMP[1] | 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 | Awaitir 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
our roading assets.  In conjunction with this audit, we are assessing the database standards for local roads provided by Auckland Transport with the inte
TDC assets officer when inputting data into RAMM.  This concern was also identified in the ONRC transition plan to improve data collection and requireme

Tasks to 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 im
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 AMP² | Action/task description | Priority | Target date | Cost/resources | |
|---|---|---|---|---|---|---|---|
| **1.0** | **Strategic case** | | | | | | |
| **2.0** | **Introduction** | | | | | | |
| **3.0** | **Definitions** | | | | | | |
| **4.0** | **Assumptions** | | | | | | |
| | Assumptions | Yes – Waugh report | Assumptions are listed however are limited and not assessed | 1 | 2017 | 1 | In house |
| **5.0** | **Asset Data** | | | | | | |
| | 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.<br><br>Review lives for pavement top-surface and sub-surface assets. | | 2019 | | In-house contra 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.<br><br>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[2] | 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. | | | | |
| **6.0** | **Levels of Service** | | | | | | |
| | | 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. |
| **7.0** | **Demand Management** | | | | | | |
| | | | 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 |
| **8.0** | **Risk** | | | | | | |
| | | | Consider the risks for major, strategic and critical assets | | | | To be done at c 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 | Council need to reassess the maintenance programme spend, in particular the escalation allowance, to ensure | | | | |

| Task ID | Area for improvement | Weak areas identified in audit of AMP[2] | 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 | Consider devaluing assets based on condition rather than birthday life (maybe utilise dTIMS).<br><br>Research whether dTIMS will provide the necessary information to value by condition, or whether additional data will need to be collected.<br><br>Implement the necessary procedures for the revaluation.<br><br>Include disposal strategies where appropriate | | | | In house audit<br><br>IDS to undertak<br>pavement mode<br>data is improve |
| | General | Improvement | Need to include speed management plan in the next AMP. | | | | In house/ Trans<br>and Policy team |
| **10.0** | **Financial Information** | | | | | | |
| | 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) | | | | |
| **11.0** | **Asset Management** | | | | | | |

| Task ID | Area for improvement | Weak areas identified in audit of AMP[2] | Action/task description | Priority | Target date | Cost/resources |
|---|---|---|---|---|---|---|
| | | | 2012.<br><br>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.<br><br>Record when and where road closures occur and the time the road is closed plus reason why they have closed.<br><br>Need to undertake regular detailed inspection of culverts.<br><br>Develop alternative route maps for where road closures occur and where HPMV vehicles would not be permitted.<br><br>Update RAMM data with missing data on bridge and culvert structures.  This was identified in the ONRC transition plan | 1 | 2017 | In house, discu NZTA where SH involved.<br><br>In house – asse team |
| | Gap analysis - streetlighting | | Pole condition and pole outreach condition is unknown.<br><br>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 a the LED conver: contract.<br>Have allowed $ any infill LED lig required post co |
| | Gap analysis – environmental maintenance | | Need to record where stock effluent is an issue on the road and/or where a spill has occurred.<br><br>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<br><br>1 | 2018 | In house, work and other provi |
| | Gap analysis – traffic services | | Develop and/or use Kiwirap system for local roads.<br><br>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.
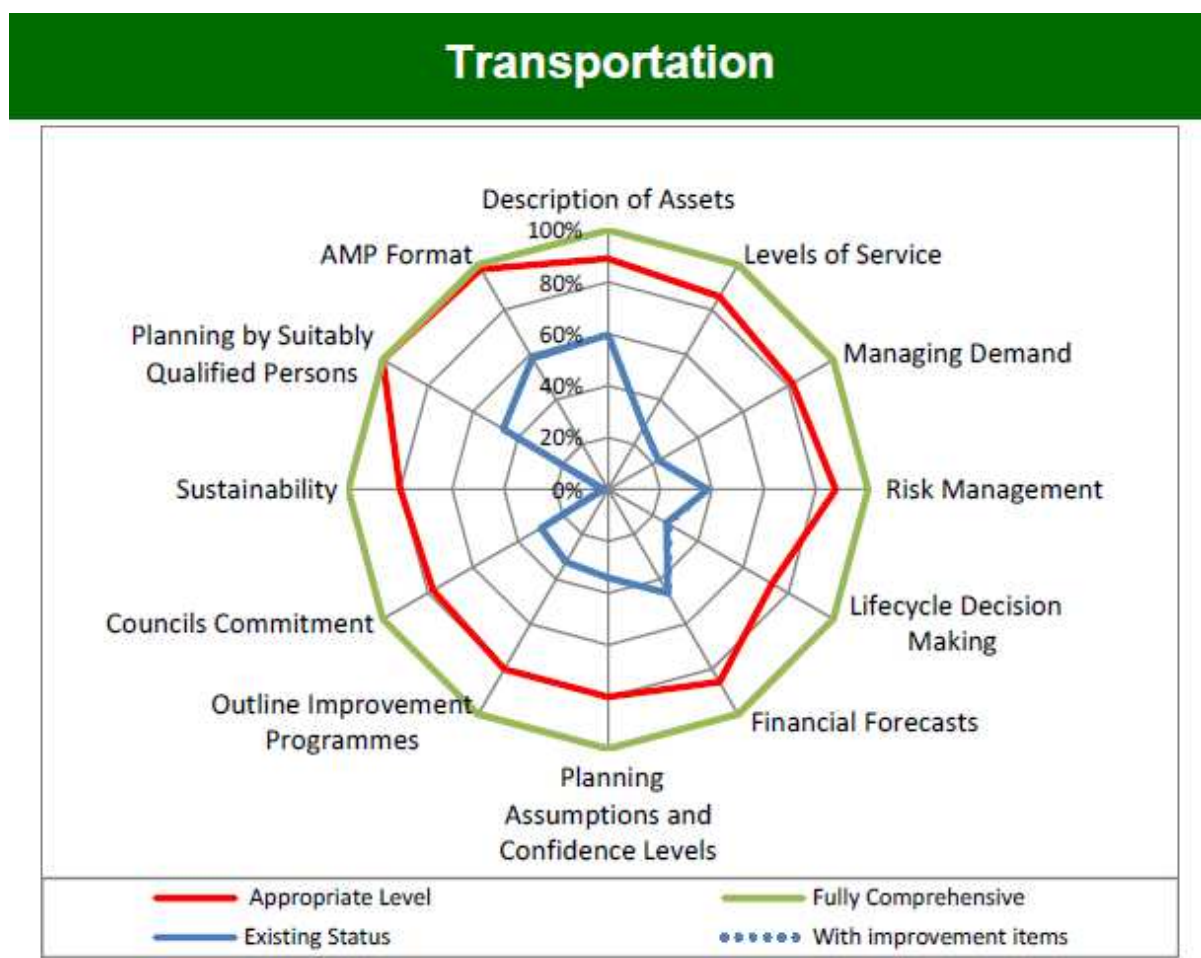
Audit New Zealand's report to council proposed the following specific areas where the AMPs could be improved further. The following table 11.2 demonstrates where this to be incorporated into relevant section of AMP.

| 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 |
| | 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.
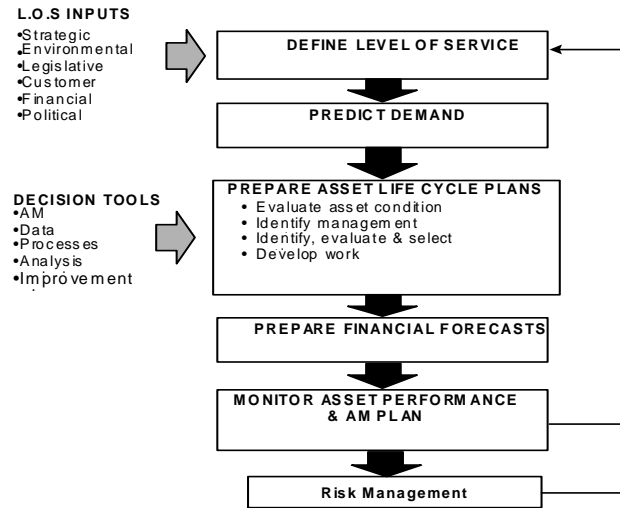


**Figure 2: Asset Management Plan Review Procedure**