

## 10.0 ASSET MANAGEMENT PRACTICES

### 10.1 Current Asset Management Practices

This section outlines the decision making tools Taupō District Council (TDC) currently uses to determine long term maintenance, renewal and creation expenditure for Solid Waste assets.

AM practices fall under three broad headings:

**Processes:** The necessary processes, analysis and evaluation techniques needed for life cycle asset management.

**Information Systems:** The information support systems used to store and manipulate the data.

**Data:** Data available for manipulation by information systems to produce the required outputs.

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.

Asset Management plans are compiled by individual asset managers responsible for their assets. Asset managers are also part of the Asset Management Team who work together to ensure quality outcomes. The team has key relationships with the policy division to make sure that customer expectations are understood as well as key outcomes are achieved. The Finance team also assist in the preparation of the finance section. Project information as well as overall budgeting is then passed to senior management to enable further analysis as well as support. Asset management plans are then presented to Council where further prioritisation occurs.

Due to an agreed financial strategy there is pressure on the amount of capex spend within the organisation. Asset managers are to prepare plans to operate and maintain their assets using best practise methods. Those plans will then be overlaid with other assets to determine if there are any synergies and to avoid "digging up the street twice".

The process from there will be to prioritise expenditure based around the financial constraints as well such things as Legislation, consent requirements and "nice to haves".

Any changes to plans will be documented and provided to the elected officials so that a complete record of the process is kept along with the decisions made.

### 10.2 Asset Management Processes

#### 10.2.1 ATTRIBUTE DATA COLLECTION AND VALIDATION

Data collection is completed by:

- Councils network maintenance engineers providing updated asset information as maintenance works are completed.
- Facility operators alert Council of unplanned maintenance and renewal works
- Contractors supplying data where an asset is renewed or installed
- As built data from new works

Validation is completed by way of TDC auditing a number of contractor's work sheets as well as monthly contract meetings where asset performance and condition are assessed.

#### 10.2.2 NEW DEVELOPMENT APPROVALS/AS-BUILT RECORDS

The Development Engineer approves completed works for new developments and ensures that the following people are issued a copy of all final documents, e.g. plans, pipe and manhole testing results.

- GIS – via the GIS help desk email address
- Asset Management Systems Officer (who will discuss any issues with the Asset Manager if required).

This process has little impact on the solid waste network as the facilities are stand alone and the infrastructure is usually not influenced by private developments apart from the need to service the urban lots for refuse and recycling collection.

#### 10.2.3 PROCUREMENT

Councils have developed a procurement framework that requires differing process for differing expenditure values. The Procurement manure can be found in Objective database.

#### 10.2.4 LEVEL OF SERVICE CONSULTATION

The level of service consultation provides feedback from residents and ratepayers of the Taupō District. The responses from this consultation provide input into how the asset is managed.

Levels of service will be consulted on as part of the Ten Year Plan (TYP).

A level of service consultation has been undertaken for litter in the district with most submitters looking for a small increase in service levels.

The overall service delivery will also be consulted on as a part of the development of the Waste management and minimisation plan.

#### 10.2.5 INFORMATION FROM CONTRACTORS

Processes for collection of data (maintenance, condition, new assets, renewals, performance etc) clearly defined and efficiently administered through asset maintenance contracts. Monthly performance meetings consider asset condition and effects on levels of service.

#### 10.2.6 STANDARD OPERATING PROCEDURES

Standard Operating Procedures are being developed to assist in the operation and maintenance of assets. This process is ongoing with new procedures being developed as the need arises and updates being made as required. The Broadlands Rd landfill has a site management plan that identifies site operational issues that need to be managed, but most of these requirements are part of the facility operational contract documents and resource consent.

#### 10.2.7 ASSET MANAGEMENT ACCOUNTING AND ECONOMICS

Infrastructure assets are those public facilities which provide for the delivery of services and sustained standard of living. They primarily comprise the Council's fixed utility systems including roads, streets and footpaths, the water and sewerage reticulation systems refuse / recycling facilities, the Stormwater system, bridges and culverts.

Infrastructure assets are deemed to have the following attributes:

- they are large networks constructed over several generations;
- they have very long useful economic lives;
- they have a high initial cost;
- they provide a benefit and/or a social service but can also provide a commercial service, i.e. the assets are used by or for the community as a whole, servicing all the town's residents and visitors. The assets are not usually capable of subdivision for ready disposal, because of legal or other restrictions, and consequently are not readily disposable within the commercial marketplace;
- Assets are not normally depleted as their service capability is fully maintained in perpetuity, i.e. they are expected to have an indefinite life if adequately maintained although portions of the network will be replaced from time to time. The Broadlands Rd Landfill will continue to be developed, as current cells fill new disposal cells need to be constructed.

Assets are systematically evaluated as required, approximately every three years.

Depreciated replacement cost is calculated having regard to an allowance for the expired portion of the expected useful economic life for each category of infrastructure asset.

TDC uses the principles of accrual accounting to measure costs of services provided and recognise revenues.

Renewal accounting treats all upgrading, reconstruction, renewal and renovation work which does not increase the capacity or service potential of assets as operating expenditure.

Operating expenditure can be divided into two broad categories; normal ongoing day to day routine maintenance works, and those other more infrequent larger projects that upgrade or renew the asset to its previous service potential.

Creation expenditure involves increases in an asset's service potential or the creation of new assets.

All expenditure on infrastructure assets will therefore fall into one of three categories:

#### **10.2.7.1 Routine Maintenance Expenditure**

Routine maintenance projects can be expected to display some or all of the following characteristics:

- regular and ongoing annual expenditure necessary to keep the assets at their required service potential,
- day to day and/or general upkeep works designed to keep the assets operating at required levels of service,
- works which provide for the normal care and attention of the asset including repairs and minor replacements,
- Minor response type remedial works i.e., isolated failures requiring immediate repair to make the asset operational again.

#### **10.2.7.2 Renewal Expenditure**

Work displaying one or more of the following attributes, can be classified as renewal expenditure.

- works which do not increase the capacity or service potential of the asset, i.e. works which upgrade and enhance the assets restoring them to their original size, condition, capacity etc,
- the replacement component of augmentation works which increase the capacity of the asset, i.e. that portion of the work which restores the assets to their original size, condition, capacity etc.,
- the replacement component of a new work which replaces the redundant element of an existing asset,
- reconstruction or rehabilitation components of works involving improvements, realignment and re-grading,
- renewal and/or renovation of existing assets, i.e., restoring the assets to a new or fresh condition.

### **10.2.7.3 New Works Expenditure**

New works expenditure projects displaying one or more of the following characteristics:

- construction works which create a new asset that did not previously exist in any shape or form,
- expenditure which purchases or creates a new asset (not a replacement) or in any way improves an asset beyond its original design capacity,
- upgrade works which increase the capacity of the asset,
- construction works designed to produce an improvement in the standard and operation of the asset beyond its current capacity.

To the extent that a project results in replacement of an asset caused by physical deterioration, and also provides capacity for increased demand, proportions should be allocated to both creation and renewals on the basis of marginal cost.

It is recommended that the split between creation and renewal expenditure is based on marginal cost. This recognises the full cost of renewing the existing asset to its original service potential is an expense as this expenditure cost does not contribute to improving the asset beyond its original design capacity.

### **10.2.8 THE TEN YEAR PLAN PROCESS**

The Ten Year Plan (TYP) formerly known as the Long Term Plan (LTP) process considers the community outcomes, statutory requirements, the headline indicators and external pressures to determine what Council can or should be doing to help the community work towards its desired future.

The TYP also contains an action plan that sets out how Council will undertake its strategic goals and details the specific activities, functions and initiatives undertaken in the short term (three years) and long term (10 years).

The TYP draws on information from other documents including the Asset Management Plans and models it in financial terms over a ten year horizon and is updated every three years.

### **10.2.9 THE ANNUAL PLAN PROCESS**

The Annual Plan is an action plan that sets out how Council will undertake its strategic goals and details the specific activities, functions and initiatives undertaken. It is produced in the years when a LTP is not. It will also outline deviations from the LTP.

#### 10.2.10 STANDARDS AND GUIDELINES

For landfill works there are standards and guidelines that are available to ensure that Council is following 'best practice'. This includes national standards on refuse compaction, Leachate handling, new cell build guidelines and on site transfer station set up. Whereas Acts and Regulations determine minimum levels of service, standards and guidelines provide the means of compliance with specific levels of service.

### 10.3 Asset Management Information Systems

#### 10.3.1 ASSET MANAGEMENT SYSTEM

Council is in the process of downloading all of the asset data for solid waste into Asset- Finda but this process has had to wait until council has finalised the Three Waters upgrade process. Litter and street recycling bin data has been uploaded into Asset Finda. Data includes location and condition.

Currently Solid Waste data is held on the NCS database and is updated as capital and renewal expenditure works are undertaken.

#### 10.3.2 TRACK 24

Track 24 is project management software. The programme allows data to be entered on a project from initial conception through to final completion. All the data for the project is stored in one location. Only large capital project payments and project sign off procedures are completed using this system.

#### 10.3.3 GIS

Solid Waste data from asbuilt records are placed into GIS if they relevant, data such as cell design data is kept in objective.

#### 10.3.4 SERVICE REQUEST SYSTEM

This is the system used by Council to record customer complaints, comments or compliments. The information is entered into the system when a customer calls and the call will be categorised depending the issue. Council Staff are tasked with completing these requests within a certain timeframe.

Service requests in some instances, such as the kerbside collection contract, can be straight to the contractor and signed off by them once the issue has been resolved.

#### 10.3.5 ASSET VALIDATION BY CONTRACTORS

Data from any new works or renewal works undertaken at waste facilities is collected on a daily basis by maintenance and capital works contractors. This information is then updated in the NCS system.

#### 10.3.6 SPM (DEVELOPMENT CONTRIBUTION CALCULATIONS)

The Solid waste cost centre does not collect development contributions as facility costs are funded by rates and fees and charges.

#### 10.3.7 LABORATORY DATA

Currently monitoring provision for the closed and operating landfill is collected and analysed by Opus international consultants, data is kept in Councils document records system, and is also passed onto the Regional Council as required by the resource consents. Council and Opus International store all monitoring records from site monitoring.

#### 10.3.8 PROMAPP

Promapp is a procedure development programme that is being used to develop standard operating procedures for all Council business.

#### 10.3.9 OBJECTIVE

Objective is Council's electronic document management system. All information relating to Council business is saved in this system for easy retrieval when required. This includes incoming and outgoing correspondence especially emails and letters. Council now only holds electronic copies for the majority of correspondence.

### **10.4 Data**

#### 10.4.1 ACCOUNTING COST DATA

Cost data for the asset groups are identified in the accounting records.

The work category type (maintenance, renewals, and new works) is identified. Marginal costs are only separately identified for significant works. Minor asset expenditure may not be separately identified.

Visual inspection to verify quantities for payment for routine maintenance and renewal tasks is undertaken by the asset engineer along with the asset manager.

#### 10.4.2 GROWTH MODEL

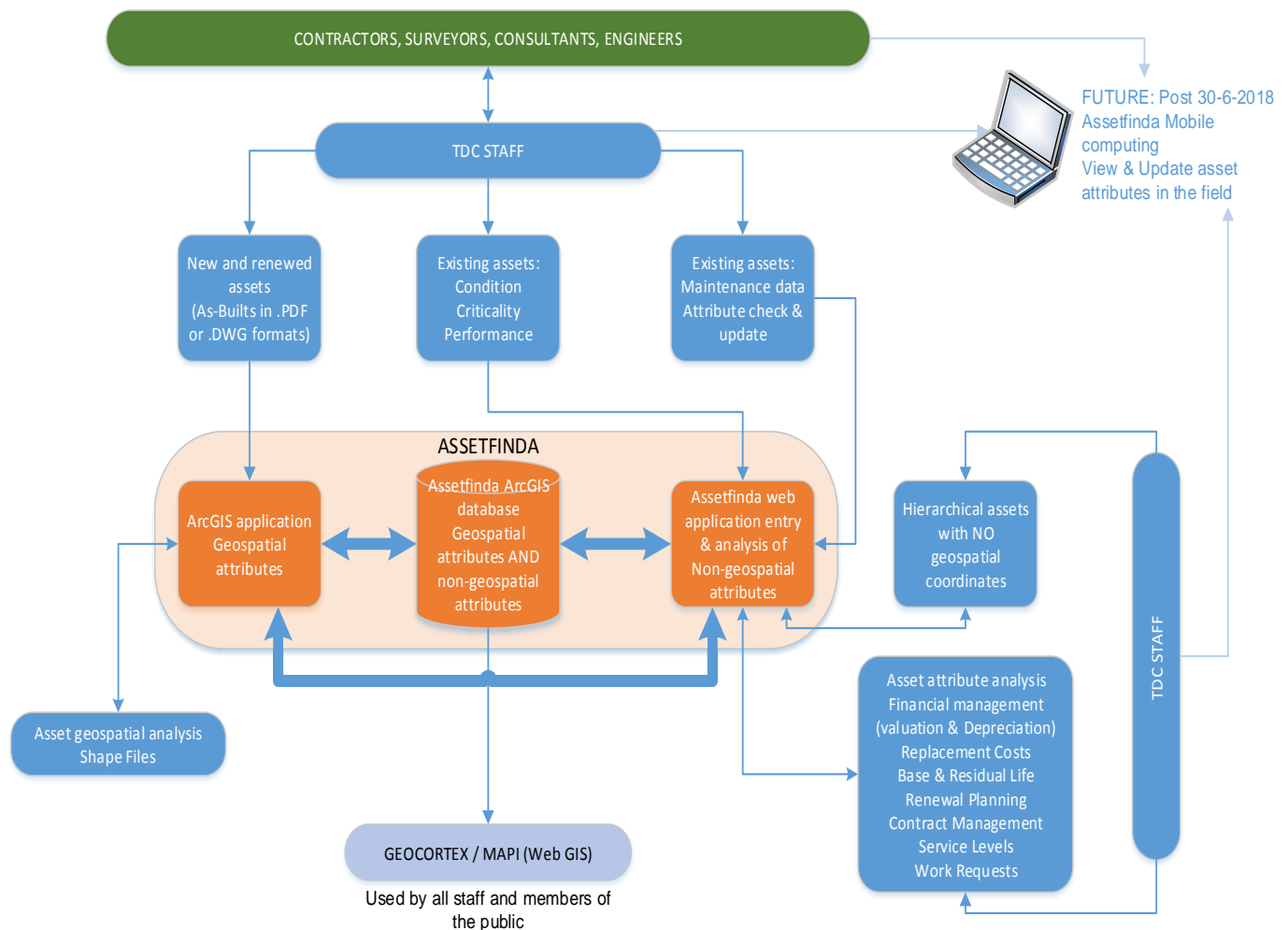
The growth model is updated on an annual basis to reflect changes in development patterns. This model predicts the spread and level of growth within the Taupō District Council Areas. This model assists Asset Managers in planning forward works for their respective assets. The growth model uses census data as well as demand figures from subdivisions and building consents to provide asset managers with numbers that may affect service delivery.

##### Asset Valuation

The asset valuation provides a three yearly update of the value of the Solid Waste Assets. New assets or disposed of assets are taken into account at this time.

#### 10.4.3 CONDITION ASSESSMENT

Condition assessments are carried out by both contractors and council staff. This process is both formal and informal, due to the high level of public interface with council facilities the condition assessment process is at least fortnightly.



**Figure 10-1: Asset Management System / GIS Data Recording Flow**

#### 10.4.4 DATA QUALITY ASSURANCE

The following are quality assurance regimes:

- Data Collection:
  - The contractor is responsible for GPS data collection following council standards (council doesn't accept any data with more than 0.3 m error in GPS coordinates).
  - TDC staff is continuously collecting data for historical assets which are updated after verification.
  - Project management team provides as built and field data and advise AMS team to update the information in asset register and or GIS.
- Data entry: Currently council is doing manual entry of the data using ArcGIS import capabilities CAD files and PDF files.
- Data maintenance: This is partially done by council staff whenever the contractor finds any variance in existing data and physical asset in the ground. As regards to the WWTP and pump stations operating staff and contractors staff are continuously validating and updating the conditions of the asset and informing the AMS team. In future it is envisaged that some efficiency will be developed with upgrade of AssetFinda and field staff will be

able to update asset attributes directly and it will be validated using quality assurance protocol developed at that time.

## 10.5 Asset Management Policy

Asset Management Policy

### PURPOSE

The Asset Management Policy supports Council's long term strategic goals found in the 2015 LTP of:

- Ensure that the Taupo District remains a great place to live
- Promote economic development
- Protect our water resources and use them wisely
- Maintain the quality infrastructure that we have
- Keep rates and debt affordable

### OBJECTIVE

The objective of Council's Asset Management Policy is to:

- ensure service delivery is optimized to deliver agreed community outcomes and levels of service for both residents, visitors and the environment
- optimize expenditure over the life cycle of the assets
- risks are managed appropriately
- provide a service delivery that is sustainable

### PRINCIPLES

The following principles will be used by Council to guide asset management planning and decision making:

- effective consultation to determine appropriate levels of service
- Integration of asset management within Council's strategic, tactical and operational planning frameworks including corporate, financial, and business planning
- Informed decision making using a lifecycle and risk management and inter-generational approach
- Transparent and accountable asset management decision making
- Sustainable management of assets for present and future needs

### CORPORATE FRAMEWORK

This Asset Management Policy links to Council's LTP, Infrastructure and Financial Strategy and Asset Management Plans. It builds on Council's strategic goals by promoting an integrated approach to the management of service delivery and across all asset classes.

### STRUCTURED ASSESSMENT of ASSET MANAGEMENT PRACTICE

Council has undertaken a structured assessment of the appropriate level of asset management practice for each of the asset classes. This structured assessment follows the guidelines provided in Section 2.1.3 of the International Infrastructure Manual (IIMM 2011v4).



## IMPLEMENTATION and REVIEW of POLICY

This Asset Management Policy has been implemented in 2015. The next full review of this Asset Management Policy shall be completed in June 2017 prior to completing asset management plan updates to support the 2018 LTP.

## MATURITY ASSESSMENT

In the first quarter of 2015 the maturity level of each of the Asset Management Plans has been assessed through an external review process to determine the actual level of maturity. This review will form the basis for the further refinement of each of the AMP's Improvement plans.