

# INTRODUCTION TO ASSET MANAGEMENT PLANS PART A

## PART A IS COMMON TO ALL CARTERTON DISTRICT COUNCIL'S ASSET MANAGEMENT PLANS

2018 - 2021

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## 1 Introduction and Overview

#### 1.1 History

Carterton is one of five townships in the Wairarapa, on the eastern side of the Tararua Ranges. The settlement was formalised by the Wellington Provincial Council in February 1857 and settled principally by labourers and would-be small farmers employed to form the roads. It was initially known as Three Mile Bush, as a result of the extensive areas of predominantly totara forest on the western side of the main street. In 1860, the settlement was renamed Carterton in honour of the noted contractor, businessman, politician and philanthropist, Charles Rooking Carter. Carter provided land for various public facilities in the district including the Carterton Library. His will provided for the establishment of the Carter Home for "poor, aged men" in Carterton and the Carter Observatory in Wellington.

Carterton was the last of the four townships (Featherston, Greytown, Carterton, and Masterton) on the main north road to be settled. Originally it was a working men's camp and not intended to be a township, thus the land was not surveyed for closer settlement. The main road followed the gently curving edge of the forest, to the later disgust of those who believed all main streets should be straight. Survey plans from both 1866 and 1868 show the bush cover extending the full length of the western side of the main road (now High Street). As a result, sections on this side of the road were viewed as being farms. They are about 75 acres and stretch as far back as Lincoln Road, while on the other side, the sections are smaller and about 10 acres.

The situation on the western side is best illustrated by Section 207 which runs from Belvedere Road to just south of Pembroke Street. The bush extending right up to the main road was cleared rapidly, enabling shops and businesses to spring up in what is today, the heart of the Carterton business district. Broadway started life as a short, 10 metre wide private right of way to which neighbours on the northern side had no right of access. By the early 1900s, it had been formed into the generous width we know today.

Carterton was initially three distinct and in some ways, competing villages. The first was in the south around Moreton Road, the second further north around Belvedere Road and then Clareville further north again at Chester Road. This competitive arrangement was brought to a head with the arrival of the railway from Wellington in 1880. With the station on Section 207, the commercial centre eventually gravitated to its present position where there was the nucleus of the village at Belvedere.

## 1.2 Asset Management Introduction

The provision and maintenance of physical infrastructure is core to the operation of Council. Maintaining those assets to be able to provide an appropriate level of service for the community and the ability for council to plan and prepare for upgrades and future demand necessitate careful oversight.

Asset Management Plans (AMPs) aim to put in place systems and processes that will improve the transparency and efficiency of the way that Council assets are created, maintained, and funded to meet the expectations of the community. They are a tool for combining management, financial, engineering and technical practices to deliver desired level of service at the lowest long-term cost to the community. The generally accepted "best practice" framework for AMPs is laid out in the International Infrastructure Management Manual (NAMS 2015) and the Council's Plans are consistent with that model.

Part A of the AMPs is common to all of the individual Asset Management Plans for Carterton District Council (CDC). It provides an overall picture of asset management and the individual Part B sections for particular asset groups will contain detail relevant to those assets.

AMPS are planned for review and revision every three years but are subject an ongoing 'live' amendments as required.

#### 1.3 Assets Covered by Asset Management Plans

Council applies asset management planning to all land and improvements owned by Council including: buildings and associated plant, roads, footpaths, bridges, pipes, pumps, water and waste storage and treatment facilities, swimming pools, playgrounds, public toilets and any other structure owned by Council.

The assets are grouped together for asset management planning purposes according to the service delivered to the public. A 'part B' exists for each of the following:

- Water supply
- Waste water
- Storm water
- Reserves and facilities
- Solid waste

#### **1.4 Structure of Asset Management Plans**

The asset management plan is divided into two parts:

- PART A Overview Of Asset Management Planning
  - Introduction

- Plan format and structure
- Future growth assumptions
- Risk and assumptions

#### • PART B Asset Management Plan

- Part B of each of the AMPS will contain the framework directly related to the associated activity as set out in the sections below in Table 1

#### Table 1: 'Part B' Plan Framework

Items	Detail
Introduction	Executive summary
Description of activity	Description of assets, goals, frameworks, responsibilities,
	the asset management systems, and the service.
Levels of Service	Linkage between agreed community outcomes and
	specified Levels of Service.
Demand management	Forecasting future demand based on relevant influencing
	factors.
Risks and resilience	Identifying opportunities or avoiding loss.
	The assessment and mitigation against failure to deliver
	levels of service, with mitigation measures provided.
	Funding and associated justification. Clearly presented
	funding requirements, linked directly to delivering levels of
	service.
Assets and Lifecycle	Prudent acquisition, operation, maintenance, renewal and
management	disposal of assets which optimise asset use in delivering a
	service to the community throughout its lifecycle
Financial forecasts	Existing data is used to estimate the financial implications
	of the asset management
Improvement Plan and	Improvement in data collection and application, clear lines
monitoring	of responsibility, and creation of a practical working
	document. To enable asset management plans to be
	reviewed and then improved upon.

## 2 Plan format and structure

The NAMS (2015) International Infrastructure Management Manual provides the structure and format for asset management plans. The AMP aims to put in place systems and processes that will improve the transparency and efficiency of the way that Council assets are created, maintained, and funded to meet the level of service desired by the community. This asset plan is planned for review and revision every three years, but is subject an on-going 'live' amendments as required. It is recognised that the

enhancement and improvement of the Asset Management Plan is required over time as asset management practices improve.

## 2.1 Asset Management Process

In mid-2016 AECOM was engaged by the Carterton District Council to conduct a high level peer review of its asset management plans, highlighting any significant issues that may affect the quality or completeness of those plans.

A significant number of areas for improvement were identified across all the AMPs although each requires differing levels of intervention. Water includes a requirement for condition assessment along with development of data capture and forecasting software. Those identified improvements have been incorporated into this AMP although actions out of both documents have yet to be fully actioned.

The key areas of focus for developing the AMPs includes:

- attention to organisational AMP policy and process wrap-around
- identification of levels of service and performance monitoring
- work programming corresponding to agreed levels of service, asset performance assessment and demand needs/growth planning
- asset condition assessments and improved renewal forecasting
- reformatting of financial summaries to cover 30-year forecasting and distinguish between capex for levels of service versus growth
- document assumptions, confidence levels and impacts/mitigation of associated uncertainty
- establish an organisational risk management approach and identify critical assets
- establish decision making and business case frameworks

## 2.2 Asset Management Systems

Council retains plans and records for the assets servicing the Carterton area, information from these documents has been summarised into an asset inventory. Council's operational services monitors the maintenance of works recording alterations and asset details required for a complete asset management system.

Council uses 'AssetFinda' as the asset management system capable of storing asset data in a format that can be consumed by financial, forward planning, and condition performance scaling.

The asset management system inventory contains information such as:

- Asset type
- Age
- Specification
- Condition grading
- Service life
- Valuation

• Associated documentation

Council developed, in conjunction with neighbouring Councils, an engineering lifelines plan which identifies vulnerable components of the water supply asset and ways of mitigating the degree of disruption likely to be incurred in a civil emergency. A review of this document along with mitigating work identified in the plan will be undertaken as an improvement project.

Council utilises the following electronic information systems to store and analyse asset data for these services:

- Council uses the asset management system "AssetFinda" which is a central strategic register and asset management system for all asset classes. It includes in-built reporting, works tracking and life-cycle costing. It comes with a prediction model for a complete Strategic Asset Management planning and operational system capable of holding all stormwater asset information.
- Microsoft Excel (Council internal R:\ drive).
- Inventory, including replacement cost, depreciated replacement cost, annual depreciation, and condition assessment based on age (i.e. date installed/built).Progress claims from the maintenance contractor.
- ArcMap 10.4 Geographical Information System (GIS).

Council's GIS shows the location of the water reticulation, with some information on the assets (e.g. diameters, year of installation, etc.). It is subject to development involving digitisation of existing plans plus utilisation of aerial photography to identify services and is linked to the AssetFinda asset management software package.

The demand for data across Council (resource consent use, operations, rating and parks and reserves) is expected to increase significantly in the future.

## 2.3 Asset Plan Sophistication Target Level

The level of sophistication refers to the degree to which core and advanced criteria for asset management planning have been achieved. Criteria for core and advanced asset management planning are set out in the 2015 International Infrastructure Management Manual.

This plan sets out to achieve the 'core' level of sophistication where corporate expectations are expressed informally and simply.

## 3 Strategic Environment

#### 3.1 Strategic and Corporate Goals

The Local Government Act 2002 (schedule 10) states that a purpose of local government is to promote the social, cultural, economic and environmental well-being of it communities, now and for the future. This statement captures, and is consistent with, concepts of sustainable resource management and sustainable development.

'Community outcomes' are defined as the outcomes, or results, that a local authority aims to achieve in order to promote the social, economic, environmental, and cultural well-being of its district or region, in the present and for the future.

Carterton District Council understands, and is committed to, its role as a guardian of community assets. Council's decision making processes are structured to ensure a sustainable approach to asset and resource management. Council realises the importance of considering our community's needs right now, as well as the longer term benefits, impacts and costs of any decisions made. The Council aims to at least maintain the quality of life, environment and community that exist today. Where affordable improvements can be achieved, short or long term, for current and/or future generations, these will be pursued.

Each group of activities carried out by the Council contributes in some way to one or more of the community outcomes and the Ten Year Plan outlines specifically how the Council intends to contribute to these outcomes over that period.

The vision for Carterton District is "a welcoming and vibrant community, where we all enjoy living".

The community outcomes are a:

- a strong community
- a prosperous economy
- a healthy natural and built environment,
- quality, fit-for-purpose infrastructure
- a strong and effective Council.

The Council expects that infill and other development as regulated by the structure plans, the as yet finalised urban growth strategy and the Combined District Plan will generally result in expansion over the timeframe of the 10YP.

Council, in the future would expect to consider alternative practices in regard to stormwater disposal infrastructure such as swaling, rain gardens and other flood attenuation and treatment measures.

## 3.2 Statutory obligations

Key legislation plans and policies relating to the management of Council assets is listed below

#### 3.2.1 Legislation

- Building Act 2004
- Health Act 1956
- Health and Safety at Work Act 2015
- Local Government Acts 1974 and 2002
- Local Government Official Information and Meetings Act 1987
- Public Works Act 1981
- Public Bodies Contracts Act 1981
- Construction Contracts Act 2002
- Civil Defence and Emergency Management Act 2002
- Utilities Access Act 2010
- Resource Management Act 1991
- The Climate Change Response Act 2002
- The Local Government (Rating) Act 2002
- Public Bodies Contracts Act 1959

#### 3.2.2 National Policy/Strategy Framework

- National Policy Statement for Freshwater Management
- National Policy Statement on Urban Development Capacity
- National Environmental Standard for Sources of Human Drinking Water
- National Environmental Standards for Air Quality
- National Environmental Standards for Assessing and Managing Contaminants in Soil to Protect Human Health
- The New Zealand Biodiversity Strategy
- The New Zealand Waste Strategy: Reducing harm, improving efficiency
- New Zealand Coastal Policy Statement
- Government Policy Statement on Land Transport 2015/16 2024/25
- National Land Transport Programme
- New Zealand Positive Ageing Strategy
- Public Libraries of New Zealand: A Strategic Framework (2006 to 2016)
- New Zealand Urban Design Protocol

#### 3.2.3 Other Organisations and Bodies which Council works with Relating to this Activity

- Central Government
- Greater Wellington Regional Council
- Rangitāne o Wairarapa
- Ngāti Kahungunu ki Wairarapa
- The Department of Conservation

• Wairarapa Public Health

## 3.2.4 Council Strategic Planning and Other Documents

- Ten Year Plan 2018-28
- Wairarapa Combined District Plan
- Carterton District Council Bylaws
- Infrastructure Strategy
- Carterton South Structure Plan
- Urban Growth Strategy
- Urban Growth Plan
- NZS4404: 2010 Land Development and Subdivision Engineering (standard)

## 3.3 Ten Year Plan

CDC's asset management plans are used to inform preparation of its infrastructure strategy and it's Ten Year Plan.

The purpose of a Ten Year Plan is to;

- describe the activities of the local authority; and
- describe the community outcomes of the local authority's district or region; and
- provide integrated decision-making and co-ordination of the resources of the local authority; and
- provide a 10 year focus for the decisions and activities of the local authority; and
- provide a basis for accountability of the local authority to the community

## 3.4 Local decision making

The Local Government Act (2002) defines the purpose of local authorities as enabling local decision making by and on behalf of the community and allows local authorities the power of general competence. To assist exercising this power of general competence, the Act requires that significant consultation takes place with the community including:

- Council must carry out a process to identify community outcomes for its district
- Council is required to consult with the community through the adoption of its long term pan on a range of specific issues including proposals to alter significantly the intended level of service provision for any significant activity, including a decisions to commence or cease any such activity and transfer of ownership or control of strategic assets to or from Carterton District Council.

Resource Management Act 1991 requires Council to:

- Sustain the potential of natural and physical resources to meet the reasonable foreseeable needs of the next generation
- Comply with the Combined District and Regional Plans
- To avoid , remedy or mitigate any adverse effect on the environment

- Comply with resource consents issued by Greater Wellington Regional Council for water quality, discharges to water and land use e.g. stormwater discharges to water or land
- Take into account the principles of the Treaty of Waitangi in exercising functions and powers under the act relating to the use, development and protection of natural and physical resources

The Carterton, Masterton, and South Wairarapa District Councils have chosen to prepare a combined District Plan so that consistent policies and methods will be used to address significant resource management and cross-boundary issues. The District Plan provides the regulatory process for implementing polices prepared under the 10YP, the asset management plans, and the Resource Management Act. The policies in the District Plan are to ensure sustainable management of the natural and cultural environment, and appropriate use of the Council's infrastructure.

#### 3.5 Infrastructure strategy

Closely linked to all AMPS is the Infrastructure Strategy which accounts for over half of the Carterton District Council's annual operating expenditure and approximately 80% of Council's capital expenditure.

The strategy assists the Council to come to informed conclusions when dealing with key decisions and investment opportunities that occur over the next 30 years and provides the foundations on which the Carterton district community is built. It is essential to the health, safety, and land transport needs of the district and has a significant impact on the physical environment. Getting infrastructure spending right is a pre-requisite to enhancing the quality of life and attracting people to live in the district. The infrastructure strategy outlines the key sewerage, water supply, stormwater and land transport infrastructural issues the Carterton district community must address over the next 30 years. The strategy deals with the main options for dealing with those issues such as the cost and service delivery implications for residents and businesses, and then states the Council's current preferred scenario for infrastructure provision.

Section 101B of the Local Government Act 2002 requires all local authorities to prepare and adopt an Infrastructure strategy for at least its network (three waters and roading/footpath) assets, covering a period of 30 consecutive years minimum. The purpose of the infrastructure strategy is to:

- identify significant infrastructure issues for the local authority over the period covered by the strategy; and
- Identify the principal options for managing those issues and the implications of those options.

The infrastructure strategy outlines how each local authority intends to manage its infrastructure assets, taking into account the need to:

- renew or replace existing assets
- respond to growth or decline in the demand for services reliant on those assets
- allow for planned increases or decreases in levels of service provided through those assets
- maintain or improve public health and environmental outcomes or mitigate adverse effects on them
- Provide for the resilience of infrastructure assets by identifying and managing risks relating to natural hazards and by making appropriate financial provision for those risks.
- •

Council's first infrastructure strategy was adopted in 2015 for the period 2015–2045. This has been updated in the 2018 – 48 version. Key issues identified in the strategy relate to managing for demographic change, maintaining minimum levels of service, responding to changing regulatory requirements, and dealing with the impact of climate change and natural hazards.

In addition, the Council wishes to improve the capacity of its wastewater treatment plant, discharge more treated effluent from the plant to land, reduce demand for water, and be ready to respond to proposed central government changes to road standards.

Preparation of the infrastructure strategy also identified gaps in what CDC knows about its network infrastructure and how it manages its planning. While CDC has data about the location, age, type, and size etc. of the asset components, their replacement cost, and which are the most critical, it has limited information about the condition of it is underground water mains, sewers and stormwater drains.

## **4** Future growth assumptions

## 4.1 **Population projections**

Data for the current AMP is built on the 2018 population i.d Forecast group projection data and are waiting on the 2018 census data release for further confirmation of the projections.

Carterton District has experienced relatively high population growth since 2006. Carterton District's current estimated population is 9,214. By 2043 the projected population is 11,435 representing just less than 1% growth per year. The Carterton district population was distributed across four area units (see Figure 1 below) for the i.d population projection, Carterton North, Carterton South, Te Wharau and Mt Holdsworth Waingawa.



#### Figure 1: The four areas of the Carterton District

Total district current and projected population, projected number of households and average size of those households is shown below with the individual areas displayed below that in Figure 2, Figure 3, Figure 4, Figure 5, and Figure 6.

#### Figure 2: District forecast population, households and average household size





#### Figure 3: Carterton North forecast population, households and average household size



Population and household forecasts, 2013 to 2043, prepared by .id the population experts, March 2018.



#### Figure 4: Carterton South forecast population, households and average household size

Population and household forecasts, 2013 to 2043, prepared by .id the population experts, March 2018.



# Figure 5: Mt Holdsworth, Waingawa forecast population, households and average household size



#### Mount Holdsworth - Waingawa

Population and household forecasts, 2013 to 2043, prepared by .id the population experts, March 2018.

the population experts

#### Figure 6: Te Wharau forecast population, households and average household size



## Forecast population, households and average household size

Table 2 below identifies the various areas population as it is in 2018, the projected number at 2043, the difference and percentage change for each of the four regions.

Area	Population 2018	Population 2043	Total change	Percentage change
Te Wharau	2044	2672	628	26.6%
Te Wharau and Mt Holdsworth	1802	2212	410	20.4%
Carterton South	2879	3600	721	22.25%
Carterton North	2489	2951	462	16.98

## Table 2: Population projections for all four areas

Part of the reasoning for the growth in the Te Wharau area is the planed re-zoning of the rural area to the east of the CBD to residential. In 2017, Boffa Miskell prepared an assessment of the remaining capacity for future residential parcels within Carterton's zoned residential area. It was estimated that there were between 1012 and 1,460 potential allotments available for future residential growth based on typical lot sizes

between the minimum permissible and actual historical subdivision density for urban residential units.

CDC records show that there have been 268 new or relocated houses constructed in the residential zone over the period 2007–2013. That leaves between 744 and 1,192 allotments potentially available for residential development. Assuming a continuation of recent house-building rates at approximately 42 per annum, this suggests the capacity of the available zoned residential land could be fully developed by 2034 (with low density development) or 2044 (with higher density development).

Recent years has seen an increase in consented work as displayed in table 3 below.

Year	Number of Building Consent Applications	Number of Building related inspections	Dollar value (000)
2017	423	1,973	\$56,770,931
2016	310	1,278	\$28,880,629
2015	283	1,111	\$19,467,480
2014	288	1,258	\$27,107,384

#### **Table 3: Recent building consent statistics**

## 4.2 Demographic projections

Between 2013 and 2028, the age structure forecasts for Carterton District Council indicate a 0.9% increase in population under working age, a 69.2% increase in population of retirement age, and a 10.1% increase in population of working age. Knowledge of how the age structure of the population is changing is essential for planning age-based facilities and services, such as child care, recreation and aged care.

The forecast age groups of the Wairarapa is a function of the current age of the population (people aging each year, being born and dying) as well as the age of people migrating into and out of the area. This in turn is driven by location (fringe, city centre, regional or rural) the existing housing stock (separate dwellings, medium or high density), the amount and type of new residential development (same as existing stock, or diversifying) and where the area is in a cycle of change.

Figure 5 below indicates that in 2013, the dominant age structure for persons in Carterton District Council was ages 50 to 54, which accounted for 7.7% of the total persons.

The largest increase in persons between 2013 and 2028 is forecast to be in ages 75 to 79, which is expected to increase by 319 and account for 5.7% of the total persons.

The largest 5 year age group in 2028 is 65 to 69 years, with a total of 759 persons





## 4.3 Urban Development Activity

The Council has recently completed consultation for an urban growth strategy directing future urban development to be out to the east of the current CBD. A more detailed Urban Growth Plan for that area is currently being developed detailing infrastructure services required to support growth. Changes to the operative Combined Wairarapa District Plan may follow the urban growth plan and strategy.

## 4.4 Industrial Growth

In the northern section of CDC, industrial zoning was expanded to provide opportunities for development to occur in the Waingawa area. Much of the development is likely to be based on the advantages of the natural resources of the Wairarapa and the strategic location of this estate.

Water for the Waingawa area is supplied via the Masterton Districts reticulated network from a metered trunk connection at Waingawa Bridge. Reticulation from that point of supply at the Bridge then comes under Carterton's ownership of the Waingawa water reticulation assets and those assets are listed within this asset management plan. The proposed Urban Growth Strategy has signalled an intention to provide a service area north of Hilton Road within the Rutland Road, Richmond road area. Although at early stages of development any re-zoning would require planning of service roll out.