

# Selwyn District Council

## Long-Term Plan 2015-2025 . Volume 2

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### 30-year Infrastructure Strategy 2015-2045



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## 1.0 SELWYN DISTRICT

### 1.1 Background

The Selwyn District continues to be a great place to live, work and play. Selwyn is the fastest growing area in New Zealand and has also been ranked by BERL (Business and Economic Research Limited) as the district with the strongest economic performance in the country for the past two years running. It really is an exciting time for the District with so much development taking place. The District continues to figure strongly in Canterbury's rebuild and economic growth. The total number of building consents issued in Selwyn for the year to June 2014 was 2,790, up from 2,390 in the twelve months to June 2013. The number of new dwelling consents rose more sharply – from 1,084 to 1,613.

The scene has been set with the development of "Selwyn 2031: District Development Strategy."

The Council has continued to focus on planning for our future, recently Selwyn 2031 – District Development Strategy. Selwyn's population is expected to grow from around 45,000 now to over 74,000 by 2031. The strategy looks at a range of issues across the district including commercial and residential land supply, and considers what Council facilities, infrastructure and services are needed to ensure the district remains prosperous and people are able to continue to enjoy a high quality of life in a strong and resilient community.

By 2031 it is expected that Rolleston's population will grow from around 10,000 to approximately 20,000. In 2014, the Council adopted two new master plans to guide the development of central Rolleston. This includes the Masterplan which focuses on developing a town centre and a main street as the heart of Rolleston, attracting people to shop and work in the town and to provide new facilities and public places for people to enjoy. The plan includes the development of a new library, community and technology centre and town square. The Foster Recreation Park Masterplan outlines the development of the Park as the largest sport and recreation park in Selwyn.

A bright future within a context of rapid growth depends heavily on the provision of service via sound infrastructure.

The capital works associated with the rapid growth is significant. Council has considered the costs and effects of delaying or promoting projects. The costs of rapid growth are very real and are implementing programmes of works will be the priority for Council alongside maintaining existing services.

This is the first Infrastructure Strategy prepared by Council and should be read as a companion document to the financial strategy.

The document has a thirty year horizon and considers

- the issues affecting infrastructure
- the response to these issues
- the actions and expenditure involved with operations, maintenance, asset renewal and capital works.



## 2.0 THIS INFRASTRUCTURE STRATEGY

This is Selwyn District Council's first Infrastructure Strategy. It has been prepared from Council's 2015 suite of Activity Management Plans and the Long Term Plan of which it forms part. The issues discussed reflect the current legislative environment and the communities' priorities across the district.

The financial forecasts are estimates and the reliability of the forecasts decreases beyond ten years and towards the thirty year planning horizon.

This infrastructure strategy discusses the key issues Council anticipates over the thirty year planning horizon. The document includes estimates of operational and capital costs which have been derived from the asset management planning process. The Financial Strategy which details the proposed funding approach is the companion to this Infrastructure Strategy.

### 2.1 Strategy Layout

The Strategy document sections and corresponding LGA Amendment Bill sections are tabled below:

**Table 2.1: Strategy Layout**

Strategy Section		LGA 2002 as amended (Section 101B)
1	Identifies the Selwyn district and provides context	2 (a)
2	Identifies the Core infrastructure included in this strategy	2(a) and 6
	Discuss the significant infrastructure issues and the associated assumptions	2(a) & (b)
3	Illustrate the linkage between strategic documents	2
4	Documents the strategic statements that will guide decision-making for the next 30 years	2(b)
5	Identifies the response options for the significant issues and documents benefits, cost, when and funding source	2(b); 3(a) to (e) & 4(a)
6	Identifies the costs associated with the actions proposed	4(a) to (c)

### 2.2 Core Infrastructure

The Local Government Act 2002 Amendment Bill Section 101B – *Infrastructure Strategy* states:

- (1) *A local authority must prepare and adopt, as part of its long term plan, an infrastructure strategy for a period of at least 30 consecutive financial years*

And

- (6) *In this section, **infrastructure assets** includes-*
- a. existing or proposed assets to be used to provide services by or on behalf of the local authority in relation to the following groups of activities:*
    - i. water supply;*

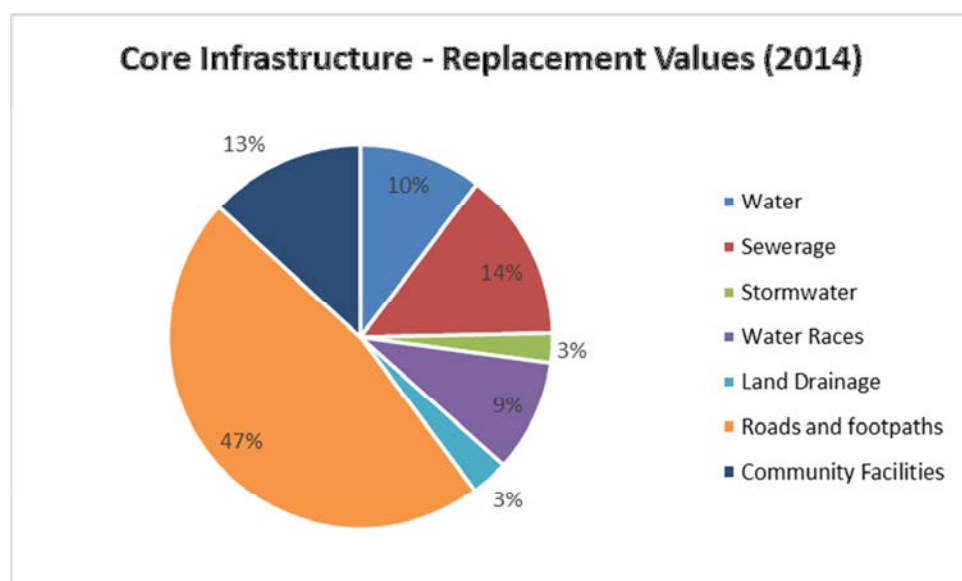
- ii. *sewerage and the treatment and disposal of sewage:*
- iii. *stormwater drainage:*
- iv. *flood protection and control works:*
- v. *the provision of roads and footpaths; and*
- b. *any other assets that the local authority, in its discretion, wishes to include in the strategy."*

### 2.2.1 Core Infrastructural Assets

The core Selwyn District Infrastructure Assets are tabulated and illustrated below:

**Table 2.2: Selwyn District Infrastructure Assets**

Asset	Description	Replacement Value (2014)	% of total
Water	30 schemes: Water extraction, treatment and distribution	\$140M	10%
Sewerage	14 schemes: Wastewater collection, treatment and discharge	\$193M	14%
Stormwater	22 schemes: Stormwater collection and discharge	\$34M	3%
Land Drainage	11 schemes: Open Drains	\$43M	3%
Water Races	3schemes: Open channels and controls	\$128M	9%
Roads and footpaths	2,400 km urban and rural network. Roads (arterial, collectors, local; curbs and gutters), bridges, footpaths	\$635M	47%
Community Facilities	Recreation Reserves Cemeteries Public Toilets Community Centres and Halls Swimming Pools Property and Buildings Rental Housing Gravel Reserves Forestry Township Reserves and Streetscapes.	\$178M	13%
<b>TOTAL</b>		<b>\$1,351M</b>	



### 2.2.2 Other Activities

Council has elected to include community facilities in this Infrastructure Strategy. While not required by the Local Government Act 2002, the activity is regarded as significant enough to be included and to provide a more complete view of the infrastructure management issues ahead. In particular there are some significant community facility capital projects being considered within the 30 years horizon, and excluding these from the strategy may provide a distorted view of the programme ahead.

There are some limitations on the accuracy of projected expenditure in the Community Facilities area, and this will be improved in later versions of the strategy.

### 2.2.3 Infrastructure Performance

Services provided by Selwyn District Council have been established throughout former entities over many years, with significant additions to the networks created over the past decade of rapid growth.

In general the assets perform well and levels of service are met.

Council's programmes to maintain and improve assets ensures service provision is maintained although there are limitations where extreme levels of demand are experienced (e.g. concentrated heavy traffic or surface flooding).

### 2.2.4 Risks to Asset Performance

Council had identified the main risks that would affect the performance of the infrastructural assets through the AMPs for each activity. These are summarised below.

Risk	Activities Affected	Risk Level
Growth (overall demographic change) and	All The capacity of the infrastructure to provide adequate service for a growing population	High

Risk	Activities Affected	Risk Level
Change in Legislation	All The service standards required and ability to fund activities can change at any time	High
'LoS creep'	All As the population grows and there is a greater proportion of 'urban' residents service expectations increase	Moderate
Funding challenges	All, particularly Roads and Footpaths Timely provision of infrastructure is reliant on timely funding from Council sources, partners including NZTA and developers	High
Adverse/catastrophic events	All A significant event such as earthquake, snow or wind storm, causes damages and changes the priority of Council	Low

Mitigation measure associated with these risks are detailed in each AMP.

## 2.3 Emerging Issues

The task of building, operating and maintaining these infrastructure assets in an **affordable** manner is becoming increasingly difficult in view of:

- Rapid Growth
- Demographic changes
- Environmental impacts and compliance requirements
- Continually changing legislative environment (Central & Regional Government)
- Infrastructure resilience
- Aging of infrastructure
- Funding challenges

### 2.3.1 Rapid Growth

Being the fastest growing District in the country, Selwyn is rapidly transforming from a rural amalgam of three former rural counties into the combination of urban and rural. Responding to this growth, as well as the pace of change brought about by post-earthquake recovery over the next few years is a real challenge in terms of land use planning, infrastructure provision, asset management and service delivery. While Council is required under the Land Use Recovery Plan (LURP) to support the required development, Council does not see its role as the facilitator of development or the coordinator of individual land owner's developments.



### **2.3.2 Demographic Changes**

Selwyn District Council has adopted a growth model for all strategic and activity management planning. The rate of growth is expected to continue at a rapid rate and temper off a little. While family units make up a larger portion of the growth than experienced in other districts, the impacts of an aging population will also be experienced in the future.

### **2.3.3 Environmental Impacts and Compliance requirements**

Increasing environmental compliance is ongoing. As consents expire and new consents are required to meet the demands of growing populations, planning and infrastructure costs are anticipated.

### **2.3.4 Continually changing legislative environment (Central & Regional Government)**

Along with the requirements of the Resource Management Act and the Local Government legal requirements, the Regional Council's requirements as outlined in the Land and Water plan are expected to involve higher levels of compliance. Further change is expected as regional councils implement the National Policy Statement on Freshwater Management.

### **2.3.5 Changing Government Priorities and Legislative Environment**

The National Infrastructure Plan, March 2011, states that:

*There are two key outcomes the government would like to drive through its infrastructure strategy:*

- *Better Use of Existing Infrastructure*
- *Better Allocation of New Investment*

The Governments focus on growth and the economy as detailed in the Business Growth Agenda is a key influence on investment prioritisation.

The Governments' focus is moving on from water quality as this has been addressed through the Health Act (Drinking Water) Amendment Act 2007 and the Drinking Water Standards for New Zealand and the focus is now changing to water quantity and the sensible, sustainable management thereof.

Environmental Compliance and progress is reflected through national policy statements and promulgated through regional and district plans.

Transportation is heavily influenced by central Government and the New Zealand Transport Agency's priorities as described in the Government Policy Statement on Land Transport Funding and other publications.

### **2.3.6 Climate Change**

Selwyn District has discussed the risks that climate change may bring to the provision of infrastructural services in the AMPs for each activity.

The key issues are:

- Sea level rise
- More severe storms
- Changes in land use

### **2.3.7 Infrastructure Resilience**

Customers have a high expectation of continuing functionality and service delivery. Resilience is based on a design philosophy which acknowledges that failure will occur.

Resilience requires early detection and recovery, but not necessarily through re-establishing the failed system.

We have to consider managing and mitigating the risks to, and the resilience of, our infrastructure assets from natural disasters.

### 2.3.8 Aging infrastructure

The infrastructure is aging and the district is approaching an important period to ensure that its infrastructure assets continue to meet the needs of the community in the future. We apply a 'just in time' philosophy and defer renewals through pro-active maintenance measures. While much of the infrastructure in Selwyn district is relatively new, there is infrastructure in older townships that requires attentions. Council needs to balance this with meeting the needs of growth.

Currently Council prepares a renewal programme for infrastructural assets for twenty years in the respective Activity Management Plan. This is compared to the depreciation calculation for the valued assets to verify the appropriateness of the renewal programme.

Along with older infrastructure, Council's portfolio is increasing quickly with development. Council is aware of this as a future renewal issue.

### 2.3.9 Charging Mechanisms

With a large number of water and wastewater schemes with different characteristics, standardising charges is an option that is being considered. This may affect the ability to implement infrastructural programmes differently as funding mechanisms become more flexible. The details of the charging methodology are described in the financial strategy.

### 2.3.10 New Technologies

New technologies affect the community at large as well as the manner in which council provides services. The new technologies that Council expects that will have an impact on service delivery include:

- Communications – high speed broadband, mobile communications and data acquisition and control techniques
- Level of service creep – customer expectations for services and the format in which they are delivered will require ongoing monitoring and response
- Changing transportation patterns including modal shift, 'smart' vehicles along with fuel use and transportation funding are likely to become issues within the horizon of this strategy

***Selwyn District must carefully manage its investment in infrastructure to ensure it gets value for every dollar and provide infrastructure in a lawful, functional and affordable manner.***

## 2.4 Assumptions

The following assumptions and uncertainty have been developed for the Asset Management Plan and the Long Term Plan. The following assumptions are regarded as most relevant to this thirty-year strategy.

**Table 2.3: Significant Assumptions**

Significant Assumptions	Risk	Potential Impact/Consequence if Assumption Wrong
<b>Financial</b>		
<p>The level of prices is assumed to increase over the period of the Selwyn Long Term Plan for each activity area as forecast by BERL. The level of increase assumed in the Selwyn Long Term Plan is set out in the Table 4 below. The assumed increases include general prices, pay costs and construction costs.</p>	<p>There is a risk that price level changes will be greater or lower than those assumed and that costs and revenues will be higher or lower than forecast. There is a risk of price increases being greater in Canterbury as the rebuild occurs (i.e. higher localised inflation)</p>	<p>Should the price level change differ from those assumed, expenditure, capital costs and revenues may differ from those forecast. The Council mitigates this risk by setting its rates and fees and charges each year based on its forecast costs for the following year</p>
<p>That an appropriate level of insurance will be secured by Council.</p> <p>Underground assets will be partly self-insured and that sufficient emergency funding will be available from NZTA for damage to roading assets caused by extraordinary events</p>	<p>There is a risk that insurance will be difficult to secure and that NZTA will not provide adequate emergency funding to reinstate damaged services</p>	<p>There is an increased risk that Council's assets may not be able to be insured in a similar manner to the current approach and different options may need to be considered. This includes increasing reserve funds and higher excess sums</p>
<p>It is assumed asset lives will be as set out in the statement of accounting policies. Continually review technology changes and implement these where cost-effective for the long term,</p>	<p>There is a risk that assets will wear out more quickly than forecast and require replacement earlier than planned</p>	<p>If assets require replacement more quickly than forecast, capital expenditure projects may need to be brought forward. The Council will consider the funding implications of any early replacements as they occur. Early replacement will result in a write off of the book value of the asset, increasing expenditure in the year it occurs</p>

Significant Assumptions	Risk	Potential Impact/Consequence if Assumption Wrong
<p>It is assumed that the conditions of Resource Consents held by the Council (requirements and costs) will remain similar to current levels and that the Council will obtain the necessary Resource Consents for planned projects.</p> <p>Increasing expectations from customers may affect the appropriateness of existing consents.</p> <p>Extra-ordinary consents required to implement the LURP will be approved within normal or CERA processes</p>	<p>There is a risk that the consent conditions will change or that consent will not be obtained for the Council projects</p>	<p>If consent conditions change, expenditure may increase to comply with the conditions and this may have an impact on rate levels. If consents cannot be obtained for planned projects, the project may be delayed or may not go ahead</p>
<p>Development Contributions will remain available to fund network infrastructure</p>	<p>There is a risk that policy implementation and methodology restrictions will affect the ability to collect Development Contributions or the method by which contributions are calculated.</p>	<p>If Development Contributions are less than assumed, the Council may need to increase its rates to cover any shortfall or delay upgrade works</p>
<p>The Selwyn Long Term Plan assumes that the timing and cost of capital projects and associated operating costs are as determined through the Council's activity management planning process</p> <p>With a three-yearly update of AMPs these programmes are reviewed and optimised every three years</p>	<p>There is a risk that capital projects may not occur as planned. This may have an impact on the costs of the project. There is also the risk that actual project costs will vary from those forecasts</p>	<p>If projects do not occur as planned, capital expenditure in any year may differ from that forecast and delay may also change the cost of individual projects. The Council will consider the impact of any change as part of the annual budget process and consider the funding implications of any cost changes</p>
<p>It is assumed that the level of financial assistance received from NZTA for maintenance will remain at 51% for the 2015-025 period.</p> <p>Works associated with nationally and regionally significant projects will receive sufficient NZTA funding (e.g. Christchurch Southern Motorway Stage 2)</p>	<p>A change in the level of subsidy will increase or reduce the level of resources available to fund the maintenance and improvement of the roading network.</p> <p>There is a risk that there will be insufficient NZTA funding for works associated with nationally and regionally significant projects</p>	<p>If subsidy levels are insufficient, the Council may need to increase its rates to cover any shortfall in funding from NZTA.</p> <p>If NZTA funding is not available for works associated with nationally and regionally significant projects, these works may need to be funded by local sources; or works deferred</p> <p>If local funding is not available to support regionally significant projects, improvement work may not go ahead as planned</p>

Significant Assumptions	Risk	Potential Impact/Consequence if Assumption Wrong
<p>In term of the implementation of Selwyn 2031, no significant changes in the management of infrastructure assets, reserves and community facilities are expected in the short term.</p> <p>Council will review the service delivery mechanism during the 2015-18 period (as required by LGA 2002 s17A)</p>	<p>There is a risk that the visions and initiatives identified through the District wide strategy process cannot be accommodated through current planning, funding and delivery mechanism</p>	<p>Changes in service (demand, performance, condition, resourcing) may be required as a result of decisions resulting from the Strategy. Changes to Activity Planning including funding may be required</p>

### **Growth**

<p>The Council has prepared population projections for the district for the period to 2031.</p> <p>The projections are based on authoritative population and economic data as well as assumptions in relation to land zoning and the provision of infrastructure in the district</p> <p>The growth model projects that the population of the district will grow from 45,000 in 2013 to around 74,000 in 2031. Forecasts have been prepared for individual townships</p>	<p>The projections are based on a number of assumptions and therefore subject to some uncertainty. There is a risk that the level of population growth will be higher or lower than the projections and that the timing of population growth will differ from that in the model</p>	<p>The Council has based its plans for the management and expansion of its infrastructure on the population projections. Should growth occur at different rates, it can respond by accelerating, delaying or revising planned capital works.</p>
<p>Council will continue to work collaboratively with neighbouring authorities across areas such as transportation planning and the Greater Christchurch Urban Development Strategy.</p>	<p>There is a risk that coordination across agencies will cease</p>	<p>If coordinated planning and development does not take place as planned for under the UDS, the Council will need to review and revise its capital works programmes.</p>



Significant Assumptions	Risk	Potential Impact/Consequence if Assumption Wrong
<p>The LURP replaces the development staging detailed in the UDS, Regional Policy Statement PC1 and Selwyn District Plan policies and Land Use Zoning</p> <p>It is assumed Council will be able to provide sufficient controls on development, and establish any critical essential strategic infrastructure (as agreed) to facilitate the implementation of the LURP and in accordance with related Outline Development Plans.</p>	<p>There is a risk that development will be disconnected and/or at a rate faster or slower than expected</p>	<p>If development takes unexpected patterns, the Council will need to review and revise its capital works programmes. It will also need to revise operations and maintenance budgets and renewals programmes to suit unpredicted demand and disconnected development</p>
<p>The Lincoln Hub proposal will not require significant investment in infrastructure from Council</p>	<p>There is a risk that there are expectations that Council will fund infrastructure for this proposal</p>	<p>If Council is required to provide infrastructure it will need to review and revise its capital works programmes. It will also need to revise operations and maintenance budgets and renewals programmes to suit unpredicted demand and disconnected development</p>
<p>There will be a growth in traffic on state highways and local networks within Selwyn district. While this will vary across the district, the typical rates will be 2% in urban areas and 1% in rural areas</p>	<p>There is a risk that traffic numbers will increase at a rate beyond that expected</p>	<p>If Council is required to fund and undertake works that are not expected; this will put budgets under pressure, or the extent of works that can be undertaken will be restricted by budget available</p>

### **Lifecycle**

<p>The Central Plains Irrigation scheme will be constructed:</p> <p>Stage 1 Te Pirata, Sheffield Jan 2014 – Sept 2015;</p> <p>Stage 2 Hororata, Greenfield, Burnham Sept 2015 – Sept 2016;</p> <p>Stage 3 Colgate Kirwee, Waimakariri Sept 2016 – Sept 2018.</p> <p>The impact on Council's activities, particularly water races and the requirement for new bridges/culverts will be included in AcMPs.</p>	<p>There is a risk that the scheme proceeds more quickly or slowly than assumed. There is a risk that the demand for the water race network will become fragmented as farmers receive water from CPW and other sources</p>	<p>If the impacts of the establishment of the scheme are not understood then planning for ongoing use (or ease of use) will be incorrect</p>
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Significant Assumptions	Risk	Potential Impact/Consequence if Assumption Wrong
<p>It assumed that there will be no major adverse events during the period covered by the Selwyn Long Term Plan, for example, earthquake, pandemic or flood.</p> <p><b>While events may occur at any time, Council's planning will focus on operational resilience and Emergency Management</b></p>	<p>There is a risk that a major adverse event will occur and result in damage to assets and additional costs to the Council</p>	<p>Any major adverse event will have a significant impact on the Council and the community. The Council seeks to mitigate this risk through its Civil Defence, Risk Management and Insurance Policies</p>
<p>That any changes to the Building Act regarding earthquake prone buildings will be able to be addressed within normal resources. Council will prioritise works (target 34% NBS) in consultation with the community to determine the appropriate level of facility provision.</p> <p>Council's administration buildings will not require major capital works</p> <p>Council will not assume control of buildings that require upgrade</p>	<p>There is a risk that the legislative requirements will be more onerous than expected</p> <p>There is a risk that Council's administration buildings will not meet future standards required</p> <p>There is a risk that Council will assume control of buildings requiring upgrading through gifting or abandonment</p>	<p>Council will require additional resources to undertake inspections; or will be required to upgrade buildings where upgrades were not forecast</p>

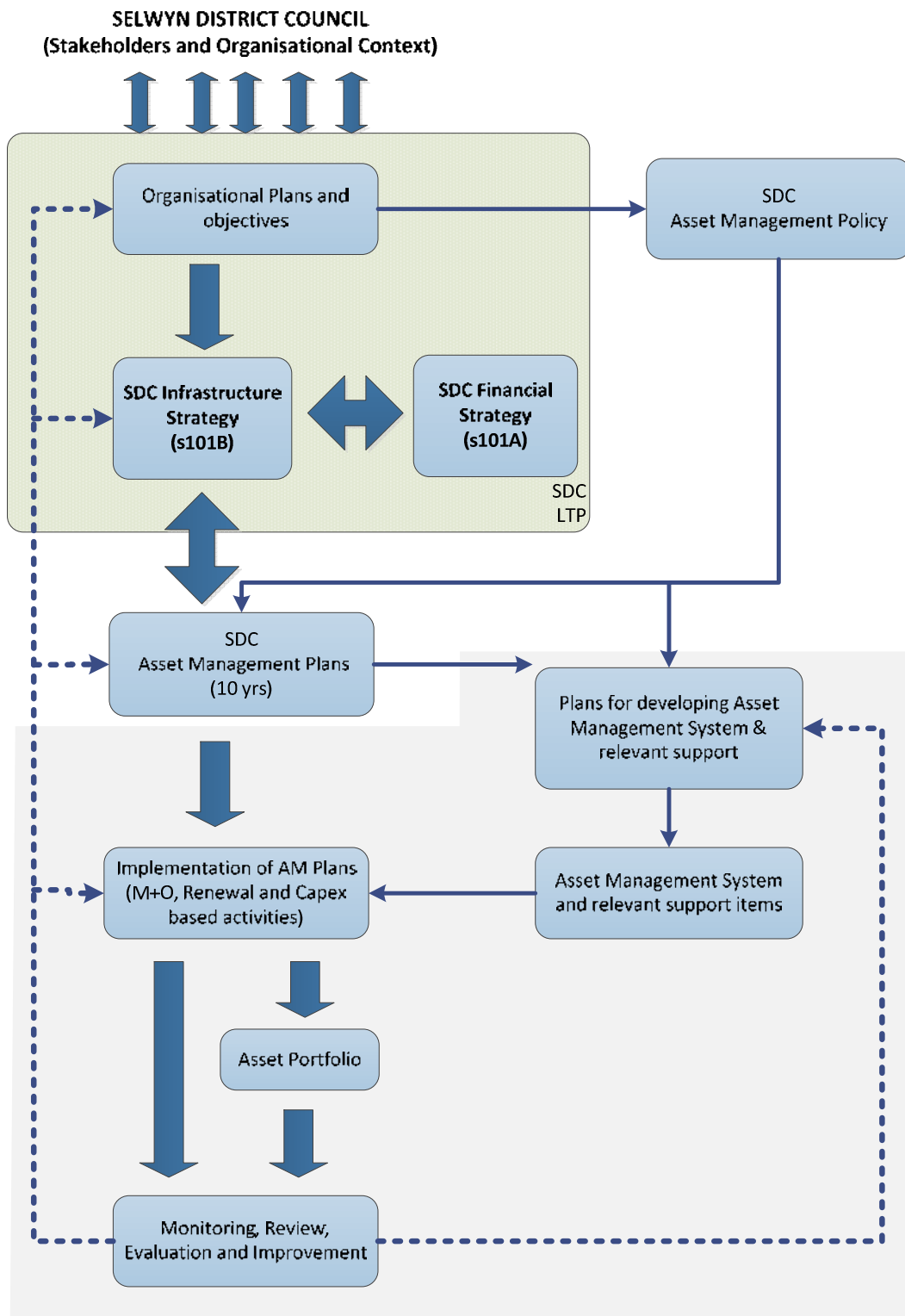
### LoS

<p>The Selwyn Long Term Plan assumes that existing Legislation will remain in place and that the structure and responsibilities of the Council will remain the same over the period covered by the Selwyn Long Term Plan</p>	<p>There is a risk that legislative change will bring about changes to the responsibilities of the Council</p>	<p>If legislative responsibilities change, it may increase or reduce the Council's expenditure and income and associated rate levels.</p>
<p>The expectations of the Selwyn Community for the provision of services provided by Council will remain similar</p>	<p>There is a risk that there is a change in expectation for services and that the targeted level of service becomes inappropriate</p>	<p>If there is an increase or reduction in the expectation of service/level of service provision, the cost and delivery model may need to be revised</p>
<p>The structure and role of Council's committees are not expected to alter</p>	<p>There is a risk that Council's structure will be altered, either increasing or decreasing committee numbers and the role of those committees</p>	<p>Alternative structures may result in changes to decision making process and delivery of services by Council</p>

### 3.0 LINKAGE WITH OTHER DOCUMENTS

The following diagram illustrates the linkages associated with this infrastructure strategy.

**Figure 3.1: Infrastructure Strategy- Linkages with other Documents**



Adapted from ISO55000:2014, Figure B1





## 4.0 THIRTY YEAR STRATEGY

In its role as Local Authority Selwyn District Council will comply with the relevant New Zealand legislation, while the following Strategic Statements will guide decision-making over the next 30 years. These statements have been developed through Council workshops and derived from Council's Outcome Statements and Draft Long Term Plan

Strategy #	Strategic Statements
1	<b>A clean environment</b>
2	<b>A rural district</b>
3	<b>A healthy community</b>
4	<b>A safe place in which to live, work and play</b>
5	<b>An educated community</b>
6	<b>A prosperous community</b>
7	<b>An accessible district</b>
8	<b>A community which values its culture and heritage</b>

### 4.1 Applying the Strategic Statements to Infrastructure Planning

**A clean environment – air, land, water and general environment to be kept in a healthy condition.**

To support this strategic statement the Council will:

- Advocate to ensure organisations responsible for protecting the environment have appropriate policies and strategies to achieve this outcome
- Provide water and sewerage systems that minimise the negative effects of their activity
- Provide a service to collect and dispose of solid waste in a manner that minimises any potential harm to people and to the environment
- Ensure services are available for the effective and affordable collection, processing and marketing or beneficial use of diverted materials

The water and wastewater activities make key contributions to the achievement of these objectives.

**A healthy community – Selwyn people have access to appropriate health, social and community services.**

To support this strategic statement:

- Advocate to ensure appropriate health and social services are accessible to Selwyn residents



- Facilitate and provide opportunities for Selwyn residents to enjoy healthy, active lifestyles including provision of recreational open space and community facilities

The water and wastewater activities make key contributions to the achievement of these objectives.

**A safe place in which to live, work and play – we are safe at home and in the community.**

To support this strategic statement:

- Encourage neighbourhood support and other community support groups
- Ensure that all buildings constructed in the District are safe, durable, accessible and fit for their intended purpose
- Promote walking and cycling as a safe, viable mode of transport and recreation
- Encourage and support volunteer's involvement with safety initiatives
- Provide and maintain a Civil Defence Emergency Organisation and a Rural Fire Organisation
- Encourage and support community involvement in emergency management
- Maintain, operate and upgrade the transportation network and work with key stakeholders and the community to reduce fatal and injury crashes
- Provide/facilitate safe entertainment/recreation activities for young people

The transportation and community facilities activities make key contributions to the achievement of these objectives.

**An educated community – our District provides a range of quality, lifelong education and training opportunities.**

To support this strategic statement:

- Advocate for improvements to educational opportunities within the District
- Provide lifelong learning opportunities through its Libraries

The community facilities activity makes key contributions to the achievement of these objectives.

**An accessible district – effective and accessible transport system**

To support this strategic statement:

- Provide a well-maintained, operated and affordable land transport system
- Advocate for improvements to state highways (NZ Transport Agency) and public transport services (ECan) where community concerns are raised

The transportation activity makes key contributions to the achievement of these objectives.

**A community which values its culture and heritage – our District provides a range of arts and cultural experiences and facilities, and our heritage is preserved and shared**

To support this strategic statement:

- Provide information, recreational, cultural and learning opportunities through its network and Libraries
- Provide support to local arts and cultural organisations

- Provide support to the Canterbury Museum Trust
- Recognise and protect sites, buildings and significant trees with cultural or heritage values
- Work with Te Taumutu Rununga to ensure our commitments to the Treaty of Waitangi are met

The community facilities activity makes key contributions to the achievement of these objectives.

## 4.2 The Organisation's Priorities

At high level, Council's priorities are to:

- Manage the impacts, including transportation impacts, of rapid population growth
- Achieve compliance with legislation and consents
- Ensure the district is attractive for residents
- Reflect inter-generational benefit in the funding of large projects
- Implement Selwyn 2031 and the Master Plans already consulted on
- Continue to develop community facilities including community centres, halls and reserves
- Fund and provide water supplies and wastewater schemes
- Implement the rationalisation of the water race network

These issues have been identified through AMP and LTP workshops in 2014.

Council is aware of the priority tensions across the district. These are associated with growth that will occur and Council's role in terms of the LURP; alongside other communities in the district with older infrastructure. There are also priorities in terms of the implementation of plans where the community has had input and has expectations going forward. This highlights the need for Council to plan for the long term, communicating the priorities and timing of its response to the community.

## 4.3 Asset and Service Management Strategy

In providing services to residents and visitors through the use of infrastructural assets, Council's management strategy is:

1. Maintain the existing networks (including 'routine' renewals)
2. Implement upgrades required to meet legislative and regulatory compliance
3. Consider the level of demand for services and plan increases or reductions accordingly (actions and timeframes)
4. Ensuring vested assets are appropriate and of the standard required
5. Undertake asset renewals through coordinated programmes.

This approach recognised the relatively new assets that comprised Selwyn's networks, and the small proportion of assets requiring renewal in the near future. The performance of assets is generally satisfactory and maintaining these is the priority so that services to the community are not compromised. Monitoring the condition and performance of assets remains important while the emphasis is on responding to growth, to ensure that the assets are not deteriorating prematurely and renewal plans remain appropriate.

## 4.4 Cost Effective Delivery of Services

*In terms of section 10 (Purpose of local government) there is a clear requirement to meet the current and future needs of communities for good-quality local infrastructure, local public services,... in a way that is most cost-effective for households and businesses.*

*(2) In this Act, good-quality, in relation to local infrastructure, local public services, and performance of regulatory functions, means infrastructure, services, and performance that are—*

*(a) efficient; and*

*(b) effective; and*

*(c) appropriate to present and anticipated future circumstances*

In order to demonstrate that the delivery of services are efficient, effective and appropriate; Selwyn District Council has developed and implemented a procurement strategy across the delivery of infrastructure-based services. Value for money is a key objective of this strategy.

Council will review the service delivery mechanism during the 2015-18 period (as required by LGA 2002 s17A).

## 4.5 Addressing Resilience

*Both physical and system resilience are crucial. This means:*

*Design and construction standards (where cost effective) that ensure infrastructure is able to withstand natural hazards and long term changes in circumstances such as those resulting from climate change.*

*Organisations and networks of organisations with the ability to identify hazards must share information, assess vulnerabilities, and plan for and respond to emergencies.*

*Acknowledging the value of adaptability and redundancy in the network to improve business confidence.*

*Identifying and managing cross-sectoral dependencies, such as power supply for communications infrastructure. Engineering Lifelines groups have already undertaken work in this area (NIP 2011)*

Council has acknowledged that events may occur at any time, and that Council's planning will focus on operational resilience and Emergency Management. Operational resilience will include 'building in' capacity in systems where this is achieved at a marginal cost and considering sustainability outcomes in the decision making process.\

These actions include:

- Actively participate in CDEM planning and activities, at both regional and local levels
- Investigate options for alternative service provision and system redundancy
- Identify critical assets and ensure mitigation methods are developed
- Obtain insurance where this is deemed to be the most cost effective approach

Allowance for these items has been included in LTP budgets. Council has acknowledged that regular allocations to an emergency reserve fund would be desirable, but this is not a priority for the next ten years when compared with growth response.

## 4.6 Significant Decisions Required

Taking a long term view to the management of infrastructural Assets, Selwyn District Council needs to make key decisions in a timely manner. In addressing Community desires and priorities the following key decisions have been identified.

(Note: the items listed below reflect projects or combinations of projects with a level of investments exceeding \$1M, and are shown in 2015 dollars).

Indicative Timeframe	5 Waters	Transportation	Community Facilities
<b>2015/16</b>	<p>Operations Service Delivery (Sicon Contract)</p> <p>Urban Water Supply – Prebbleton New Reservoir &amp; Water Source Improvements (15/16-32/33)</p> <p>Urban Water Supply – Lincoln Well, Headworks, Reservoir &amp; PS Upgrade (15/16-39/40)</p> <p>Rolleston Water Source Improvements (15/16-38/39)</p> <p>Sewerage – Ellesmere WWTP Upgrade (16/17-33/24)</p> <p>Sewerage – ESSS WW Mains Extension (15/16-41/42)</p> <p>Sewerage – ESSS WWTP Upgrade (15/16-41/42)</p> <p>Stormwater – Leeston Township Flood Diversion (15/16-22/23)</p>	<p>Rolleston Town Centre \$26m, 18/19-22/23</p> <p>Prebbleton CSM2 Upgrades \$23M, 16/17-23/24</p>	<p>Lincoln Domain Extension (includes land purchase)</p> <p>Rolleston Reserve &amp; Brookside Park Re-development</p> <p>Tai Tapu Community Centre Replacement or Upgrade</p> <p>West Melton Community &amp; Recreation Centre</p> <p>Rolleston Library (16/17-18/19)</p> <p>Rolleston Town Square Development (2.87M)</p> <p>Prebbleton Reserve Development &amp; Extension (Stage 1)</p>
<b>2016/17</b>	<p>Water Races – Water Race Closure</p> <p>Water Races – Water Race Fish Screens and Intake works</p> <p>Water Races – Water Race Resource Consent Renewals</p>	<p>Rolleston SH1 Access \$64M, 18/19-22/23</p>	<p>Rhodes Park New Pavilion</p> <p>Rolleston Indoor Courts &amp; Fitness Centre Stg 1 18/19-20/21</p> <p>Big Scale Park – land bank</p>
<b>2017/18</b>			
<b>2018/19</b>			Prebbleton Community Centre 19/20-21/22

Indicative Timeframe	5 Waters	Transportation	Community Facilities
2019/20		Lincoln Upgrades & Bypass \$8M, 20/21-33/34	
2020/21			
2021/22			
2022/23		Upgrade of key Urban Routes within Rolleston (Meijer Dr Extension, Broadlands Dr Stage 3 Extension \$4M, 23/24-24/25	
2023/24			<p>Building Upgrades/Seismic Work - \$500 k per year for 10 years from 2025 - LOS</p> <p>Learn to Swim Pool at SAC \$2.5 M - 2025</p> <p>Foster Recreation Park Stage 3 development - \$6.5 M from 2025 – 2030</p> <p>Prebbleton Reserve Development &amp; Extension (Stage 2)</p>
2024/25			SDC HQ extension - \$4.5 M in 2026 Rolleston Centre (to be co-located with the Library) \$17.5M split over 2 years in 2025-26



Indicative Timeframe	5 Waters	Transportation	Community Facilities
2025/26 to 2029/30			<p>Artificial Playing Surface - \$2 M each - one in 2027 and another in 2035</p> <p>New Community Facilities - Leeston \$6 M in 2028-30</p> <p>Big Scale Park development - \$10 M over 10 years from 2030 - 50/50</p> <p>Indoor courts stg 2 - \$10 M over 2 years 2030-32 - 50/50</p> <p>Darfield Pool Redevelopment - \$8 M over 2 years from 2030</p> <p>Public Toilets Upgrade (\$4 M over 20 years) from 2025</p>
030/31 to 2034/35			<p>Lincoln Sport Park (new) land acquisition &amp; development - \$5 M for land purchase in 2035 &amp; \$4.5 M for development over 3 years from 2037</p>
2035/36 to 2039/40			<p>New Community Facilities - Rolleston - \$10 M in 2042-44</p> <p>Cemetery (new or extension) - \$1.5 M over 3 years from 2039</p>
2040/41 to 2044/2045			

## 5.0 SIGNIFICANT INFRASTRUCTURE ISSUES

*The Local Government Act 2002 Amendment Bill Section 101B – Infrastructure Strategy states:*

*(2) The purpose of the infrastructure strategy is to—*

*“(a) identify significant infrastructure issues for the local authority over the period covered by the strategy; and*

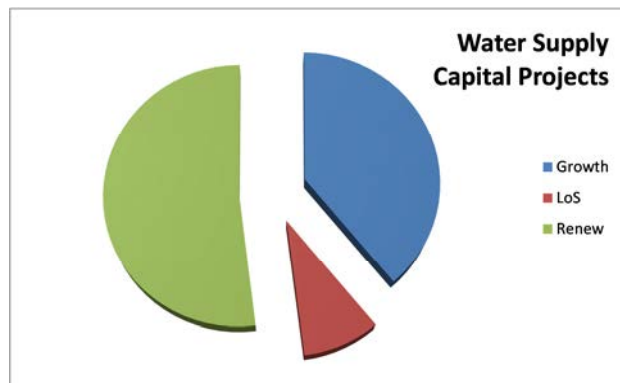
*“(b) identify the principal options for managing those issues and the implications of those options.*

In developing this 30 Year Strategy Council identified the anticipated significant infrastructure issues over the 30 years and considered each significant action and the benefits of the action. The significant infrastructure issues faced by SDC with the benefits and costs are tabled below. The items listed in reach of the tables below reflect projects or combinations of projects with a level of investments exceeding \$1M, and are shown in 2015 dollars.

### 5.1 Water

Council’s goal for the water activity is:

*To provide water services that meet all relevant standards and are at a service level the public can afford and have confidence in, now and forward into the future.*



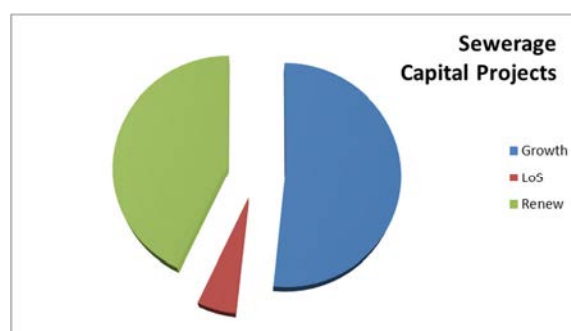
Issue	What are we doing?	What is the benefit?	How much will it cost?	When are we doing it	Growth	LoS	Renew
Adequate Urban Water Supply for Prebbleton	Upgrading headworks to improve supply quality and capacity in line with population growth	Ensure there is adequate water supply for the growing community	\$5.2M	15/16-32/33	✓		
	Assumptions	Projections of water demand and the capability of the infrastructure proposed are sufficiently accurate and improvements can be made in an acceptable timeframe					
Adequate Urban Water Supply for Lincoln	Upgrading headworks to improve supply quality and capacity in line with population	Ensure there is adequate water supply for the growing community	\$7.7M	15/16-39/40	✓		

Issue	What are we doing?	What is the benefit?	How much will it cost?	When are we doing it	Growth	LoS	Renew
	growth						
	Assumptions	Projections of water demand and the capability of the infrastructure proposed are sufficiently accurate and improvements can be made in an acceptable timeframe					
Adequate Urban Water Supply for Rolleston	Upgrading headworks to improve supply quality and capacity in line with population growth	Ensure there is adequate water supply for the growing community	\$12.9M	15/16-38/39	✓		
	Assumptions	Projections of water demand and the capability of the infrastructure proposed are sufficiently accurate and improvements can be made in an acceptable timeframe					

## 5.2 Sewerage

Council's goal for the sewerage activity is:

*To provide water services that meet all relevant standards and are at a service level the public can afford and have confidence in, now and forward into the future.*



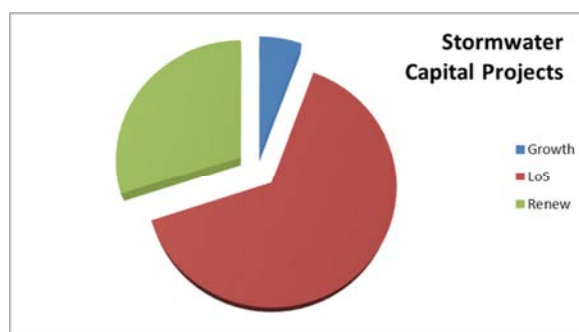
Issue	What are we doing?	What is the benefit?	How much will it cost?	When are we doing it	Growth	LoS	Renew
Adequate wastewater treatment for growing Communities	Design and construct Ellesmere WWTP Upgrade	Greater treatment capacity	\$5.3M	16/17-33/34	✓		
	Assumptions	Projections of treatment required and the capability of the infrastructure proposed are sufficiently accurate and improvements can be made in an acceptable timeframe					
Adequate wastewater treatment for growing Communities	Design & construct ESSS WW Mains Extension &	Greater treatment capacity	\$34.5M	15/16-41/42	✓		

Issue	What are we doing?	What is the benefit?	How much will it cost?	When are we doing it	Growth	LoS	Renew
es	WWTP Upgrade						
	Assumptions	Projections of treatment and pipelines required, and the capability of the infrastructure proposed are sufficiently accurate and improvements can be made in an acceptable timeframe					

### 5.3 Stormwater

Council's goal for the stormwater activity is:

*To provide water services that meet all relevant standards and are at a service level the public can afford and have confidence in, now and forward into the future*

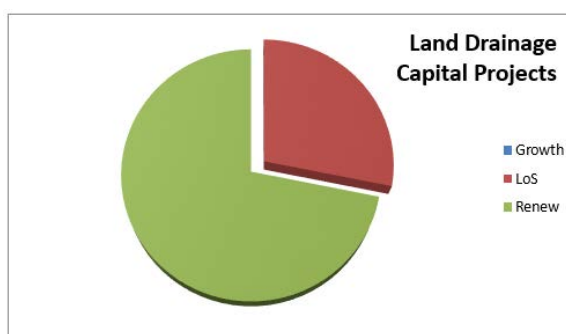


Issue	What are we doing?	What is the benefit?	How much will it cost?	When are we doing it	Growth	LoS	Renew
Flooding risk	Construct Leeston Township Flood Diversion	Ensure greater protection for people and property	\$1.7M	15/16-22/23		✓	
	Assumptions	The design storm will address the flooding risk to an appropriate level for the Leeston community					

### 5.4 Land Drainage

Council's goal for the stormwater activity is:

*To provide water services that meet all relevant standards and are at a service level the public can afford and have confidence in, now and forward into the future*

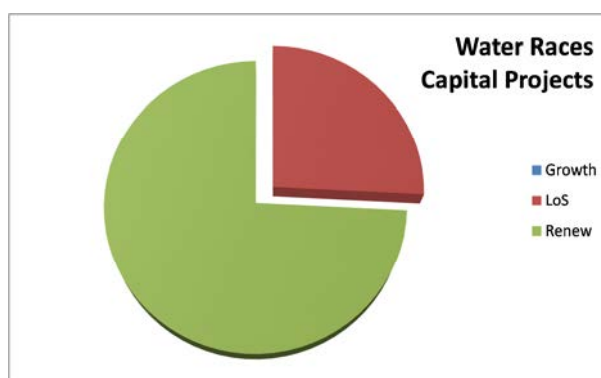


There are no significant projects planned.

## 5.5 Water Races

Council's goal for the stormwater activity is:

*To provide water services that meet all relevant standards and are at a service level the public can afford and have confidence in, now and forward into the future*

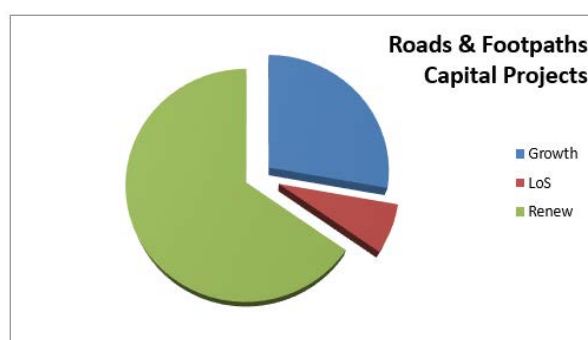


Issue	What are we doing?	What is the benefit?	How much will it cost?	When are we doing it	Growth	LoS	Renew
<i>Meet resource consent conditions and provide suitable ecological management</i>  <i>Ensure intakes function adequately</i>	Construct fish screens and intake improvements	Ensure greater protection for people and property	\$1.5M	2015/16–2017/18			✓
	Assumptions	The will continue to be a demand for water supply from the water race network.					
<i>Ensure intakes function adequately</i>	Kowai tunnel renewal project	Ensure reliable supply	\$0.5M	2015/16–2017/18			✓
	Assumptions	The will continue to be a demand for water supply from the water race network. This project may not proceed if the 2017/18 repair project is successful. (Not included in forecasts)					

## 5.6 Roads and Footpaths

Council's goal for the roads and footpaths activity is:

*To maintain, operate, and if necessary, improve the road network and other transport activities to achieve a range of facilities that provide for the safe and efficient movement of people and goods to a standard that is both acceptable and sustainable.*



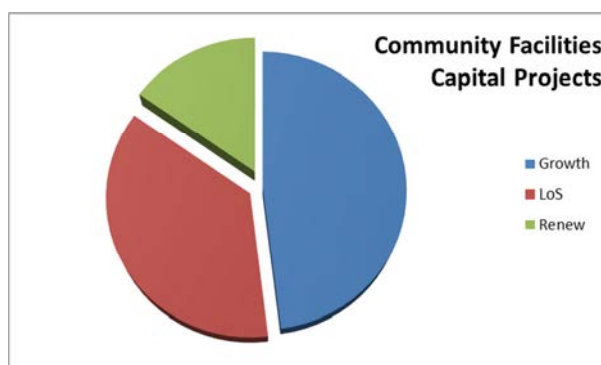


Issue	What are we doing?	What is the benefit?	How much will it cost?	When are we doing it	Growth	LoS	Renew
SH1 Access at Rolleston Township/ Rolleston Industrial Zone	Construct upgrades at key SH1 intersections in Rolleston/ Rolleston Industrial Zone	Ensure safe and convenient access for light and heavy traffic, including the proposed 'inland ports'	\$64M	2018/19-2044/45-	✓	✓	
	Assumptions	Traffic models indicate the timeframe for intervention adequately. There will be adequate funding from each of the stakeholders involved					
Rolleston Town Centre Implementation	Construct intersections and road upgrades the in Rolleston township	Ensure safe and convenient access for residents and heavy traffic	\$26M	2015/16-2036/37	✓	✓	
	Assumptions	Traffic models indicate the timeframe for intervention adequately. There will be adequate funding from each of the stakeholders involved					
Prebbleton / CSM2 Linkages	Construct intersections and road upgrades to provide linkages to and around CSM2	Ensure safe and convenient access for residents, visitors and heavy traffic, while providing choice of travel mode	\$23M	2016/17-2044/45	✓	✓	
	Assumptions	Traffic models indicate the timeframe for intervention adequately. There will be adequate funding from each of the stakeholders involved					
Lincoln Township Improvements	Construct intersection Construct intersections and road upgrades the in Lincoln township	Ensure safe and convenient access for residents, visitors and heavy traffic, while providing choice of travel mode	\$8M	2020/21-2027/28	✓	✓	
	Assumptions	Traffic models indicate the timeframe for intervention adequately. There will be adequate funding from each of the stakeholders involved					

## 5.7 Community Facilities

Council's goal for the Community Facilities activity is:

*"To provide community, cultural and recreational facilities that enhance the health and wellbeing of the district's communities and improve the overall quality of life for residents and, to effectively manage Council's property portfolio".*

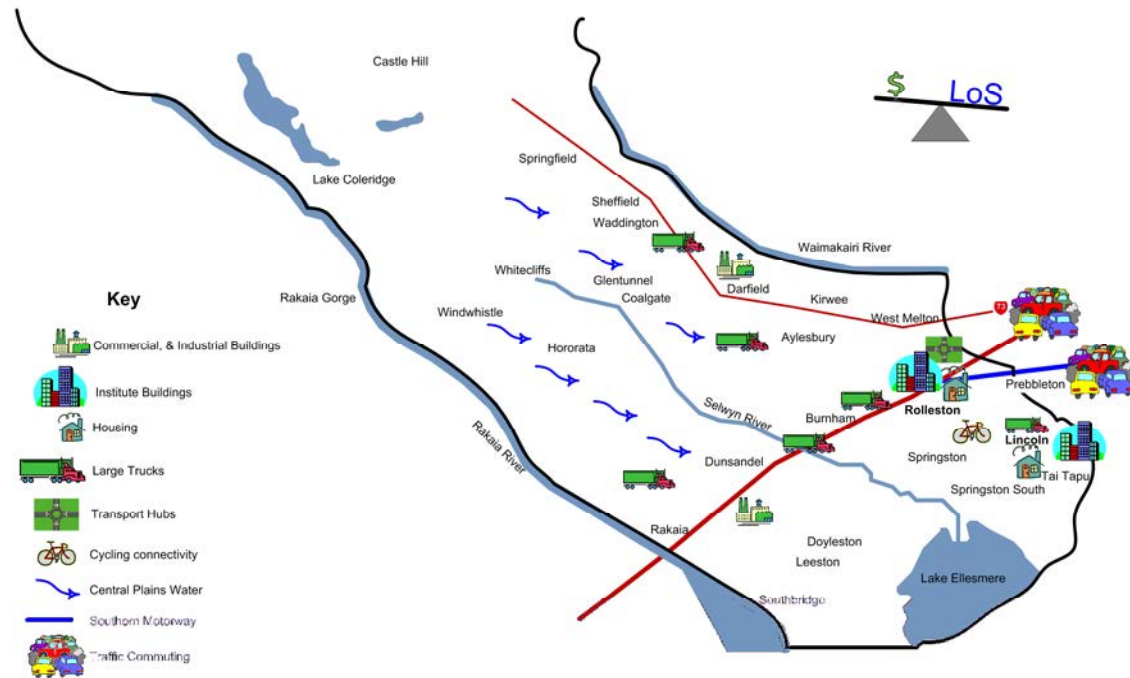


Issue	What are we doing?	What is the benefit?	How much will it cost?	When are we doing it?	Growth	LoS	Renew
Rapid growth of the population in the district means there is inadequate supply of open space	Rolleston Parks development including Foster Recreation Park	Ensuring there is sufficient open space for active and passive recreation	\$23.3 M	2015–30	✓	✓	
	Prebbleton Reserve Development & Extension		\$2.5M	2016-27	✓		
	Large Scale Park Purchase & development		\$8M \$10M	2016/17 2030-40	✓	✓	
	Artificial Playing Surfaces		\$2M \$2M	2027 2035	✓	✓	
	Lincoln Sport Park (new) land acquisition & development - for land purchase in & for development		\$2.2M \$5M \$4.5M	2017-20 2035 2037-40	✓		
	Assumptions	Demand for facilities will occur as predicted and there will be sufficient space available for development					
Rapid growth of the population in the district and increasing expectations means there is	Rolleston Library & Centre	Ensure there is a suitable range of facilities that support district activities	\$16M \$17.5M	2016-19 2025-26	✓	✓	
	West Melton Community & Recreation Centre		\$5.5M	2015-17	✓	✓	
	Learn to Swim Pool at SAC		\$2.5M	2025	✓		

Issue	What are we doing?	What is the benefit?	How much will it cost?	When are we doing it?	Growth	LoS	Renew
inadequate supply of facilities	Tai Tapu Community Facilities		\$2.2M	2017-19	✓	✓	
	Prebbleton Community Facility		\$4,5M	2019-22	✓	✓	
	New Community Facilities - Leeston		\$6M	2028-30		✓	
	Darfield Pool Redevelopment		\$8M	2030-31		✓	
	Indoor courts Stage 1 & 2		\$7.7M \$10M	2019-21 2030-32	✓	✓	
	New Community Facilities - Rolleston		\$10M	2042-44	✓		
	Assumptions	Demand for facilities will occur as predicted and there will be sufficient opportunities for these developments					
Cemetery space becomes limited	Cemetery (new or extension)	Provision for future burials	\$1.5M	2039-42	✓		
	Assumptions	Demand for burials will occur as predicted and there will be sufficient space available for development					
Building compliance & fit for purpose	Building Upgrade & Seismic Work	Providing safe & serviceable buildings	\$5M	2025-35		✓	✓
	Assumptions	A number of buildings will require seismic strengthening within a 15 year time frame					
SDC Council building capacity becomes inadequate	HQ Building extension	Space to accommodate staff and Council functions	\$4.5M	2026	✓		
	Assumptions	Demand for accommodation will occur as predicted and there will be sufficient space available for development					

## 5.8 Summary of Significant Infrastructure Issues

Along with the replacement of existing infrastructure; Council's priority over the next ten to twenty years relates to the rapid growth in the eastern portion of the district. The issues are summarised in the schematic below.



## 5.9 Other Scenarios Considered

While Selwyn District has experienced growth over a long period of time, the rapid growth currently occurring is expected to continue as the Land Use Recovery Plan implementation occurs. With Ministerial support, growth will occur and Council's programme of work is a balance between affordability and action (proactive and responsive). Extensive modelling has confirmed the anticipated timing where capital works are required. Some projects are delayed to achieve a balance with renewal and maintenance of existing infrastructural assets.



Council has endeavoured to optimise the programme by prioritising works over the thirty year strategy period, while being mindful of the extent of borrowing involved.





## 6.0 FINANCIAL ESTIMATES

*The Local Government Act 2002 Amendment Bill Section 101B – Infrastructure Strategy states:*

*(4) The infrastructure strategy must outline the most likely scenario for the management of the local authority's infrastructure assets over the period of the strategy and, in that context, must—*

*“(a) show indicative estimates of the projected capital and operating expenditure associated with the management of those assets—*

*“(i) in each of the first 10 years covered by the strategy; and*

*“(ii) in each subsequent period of 5 years covered by the strategy*



### 6.1 Total Expenditure

The projected capital expenditure associated with the significant infrastructure assets are graphically represented below:

#### Notes

1. The graphs include all projected expenditure and is not limited to the significant projects discussed earlier.
2. Capital project estimates are not inflated
3. The expenditure indicated in the five year blocks from 2025 - 26 to 2044 - 45 are averages for the 5 year period.

Figure 6.1: Projected Capital Expenditure- Infrastructure Assets

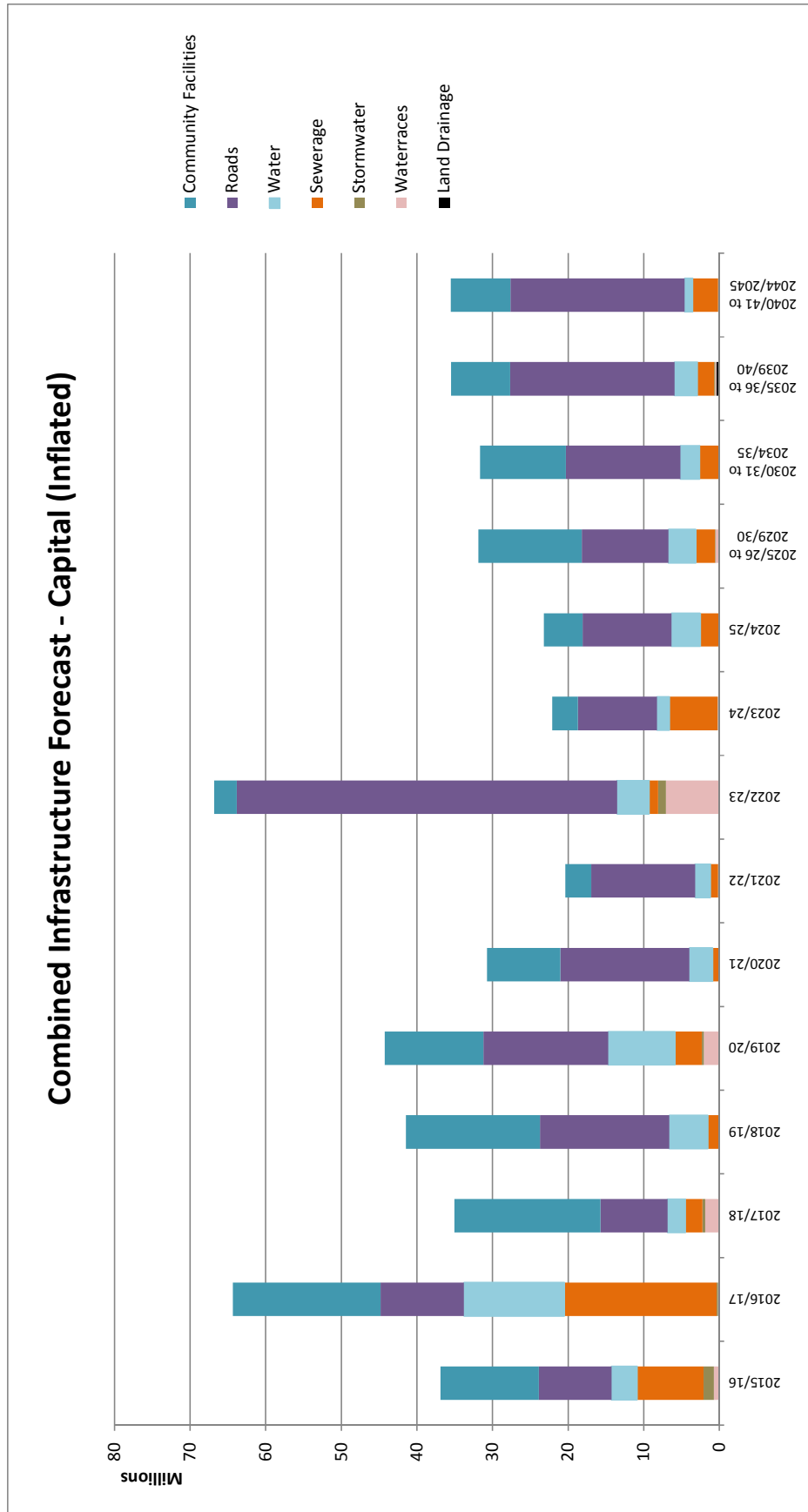
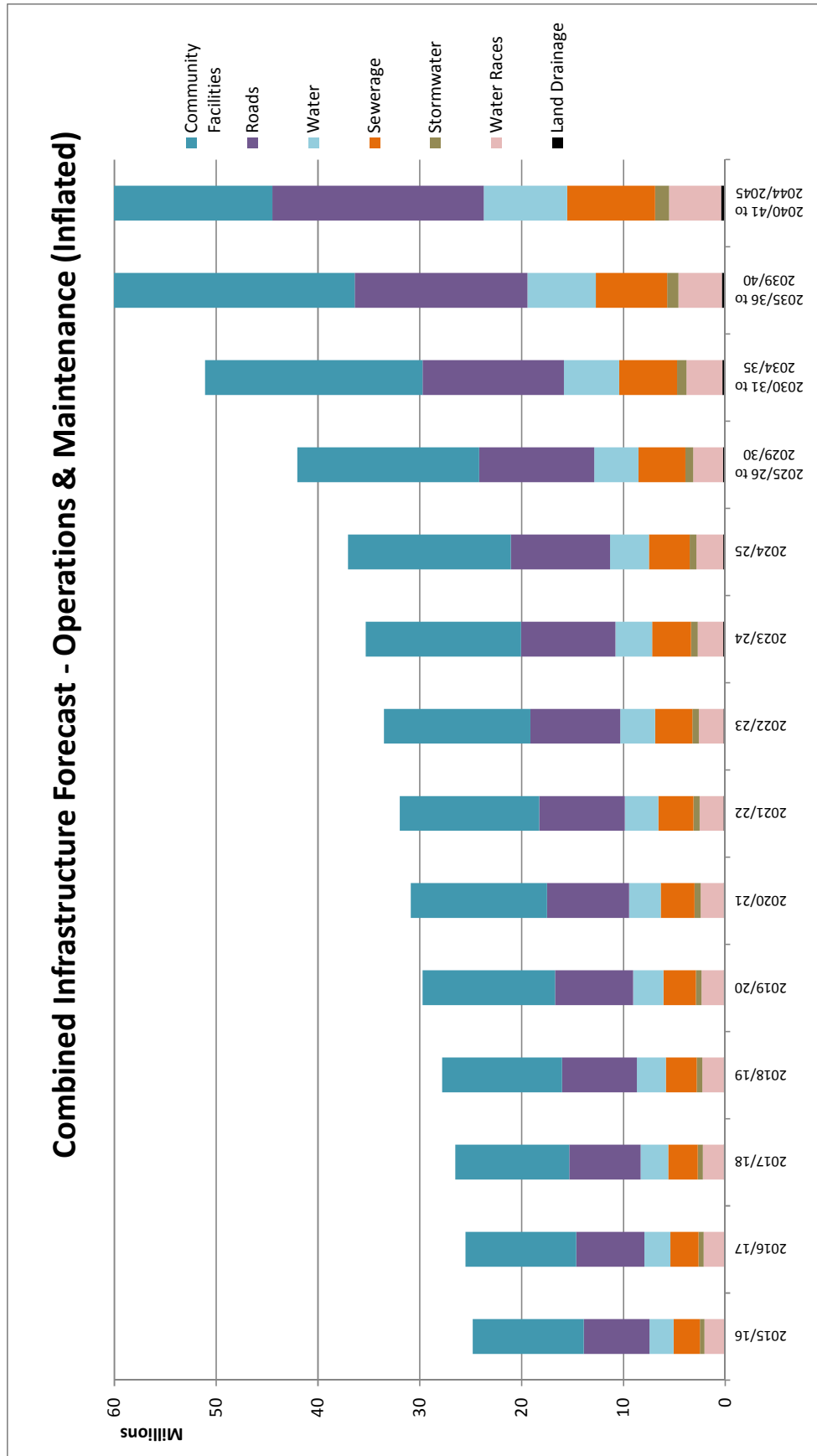




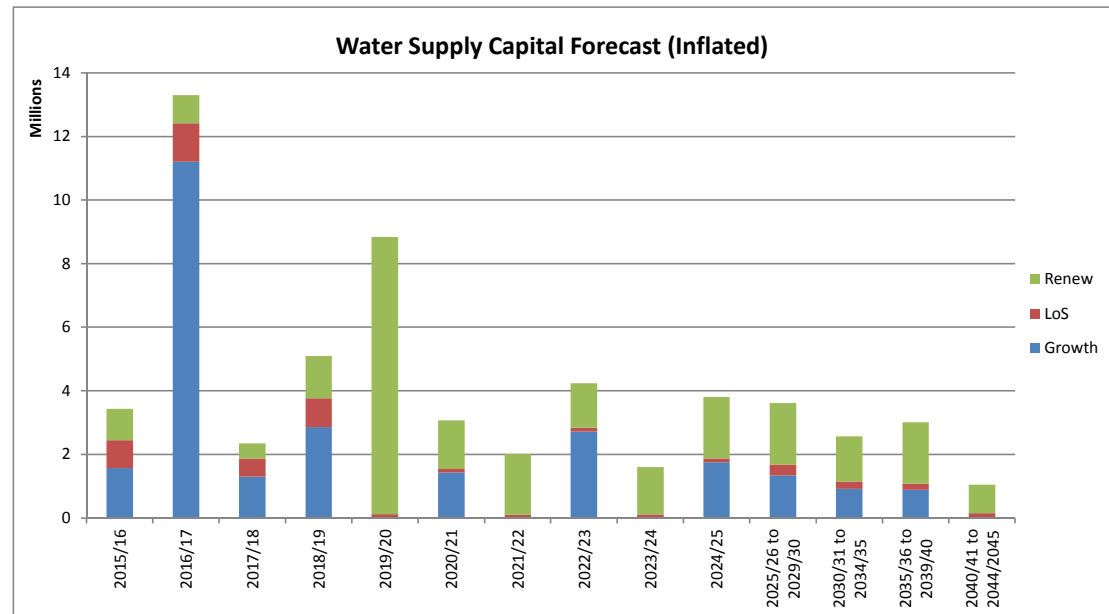
Figure 6.2: Projected Operational Expenditure –Infrastructure Assets



## 6.2 Water

The projected capital expenditure associated with the water infrastructure assets are graphically represented below:

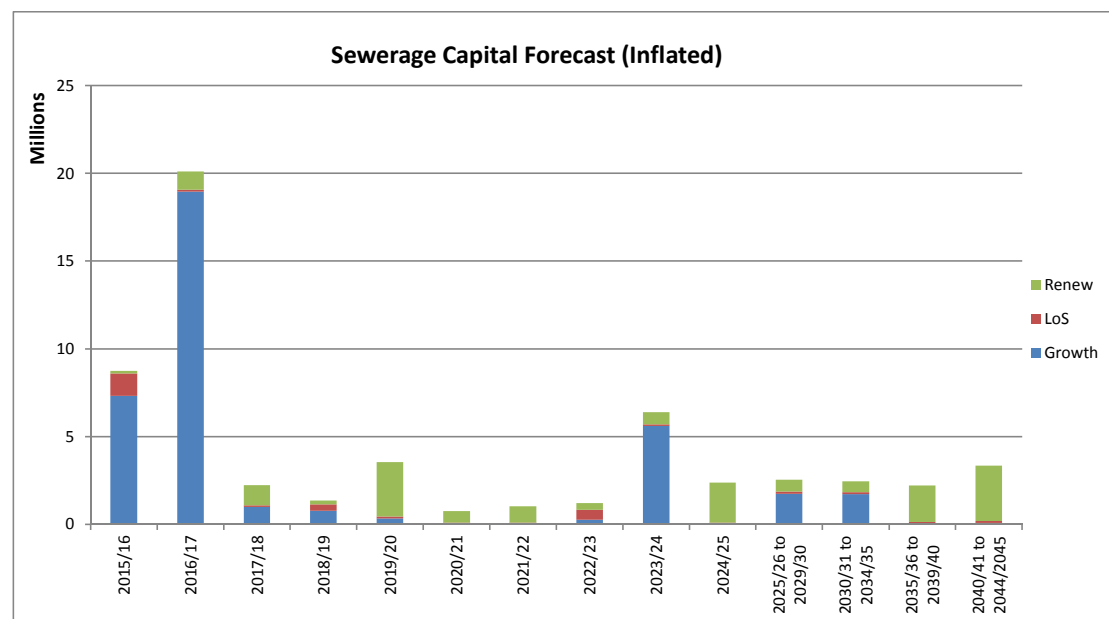
**Figure 6.3: Projected Capital Expenditure – Water**



## 6.3 Sewerage

The projected capital expenditure associated with the sewerage infrastructure assets are graphically represented below:

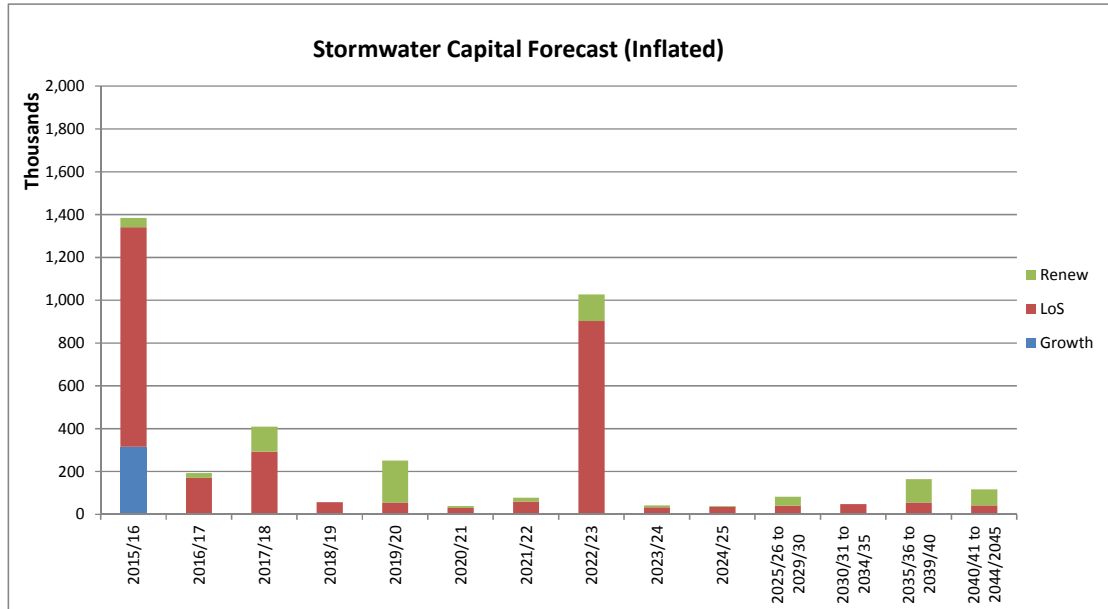
**Figure 6.4: Projected Capital Expenditure – Sewerage**



## 6.4 Stormwater

The projected capital expenditure associated with the stormwater infrastructure assets are graphically represented below:

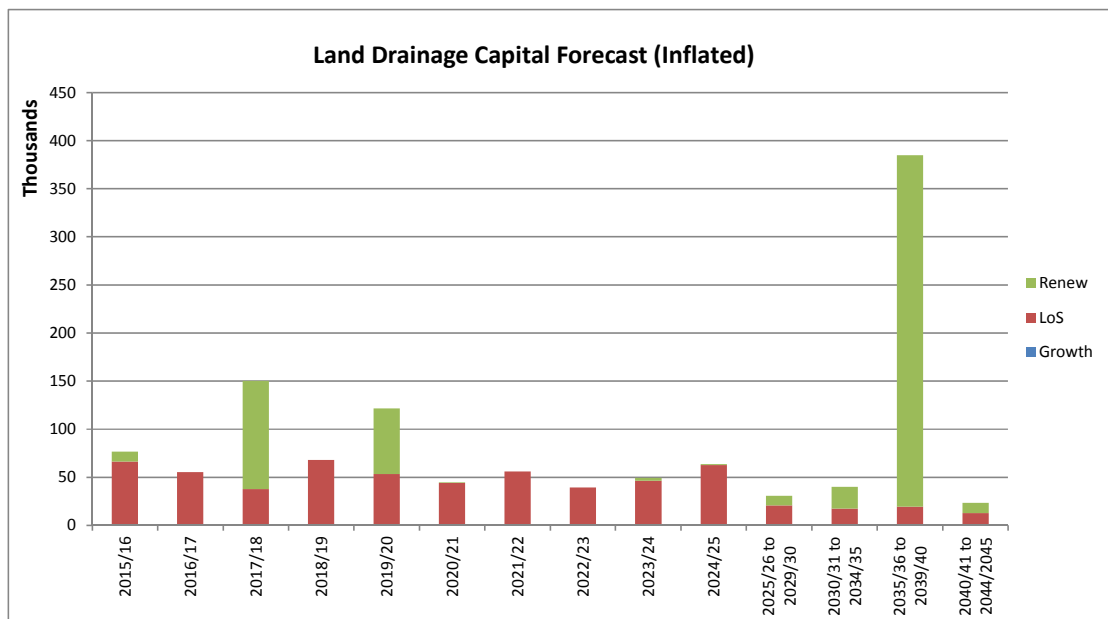
**Figure 6.5: Projected Capital Expenditure – Stormwater**



## 6.5 Land Drainage

The projected capital expenditure associated with the land drainage infrastructure assets are graphically represented below:

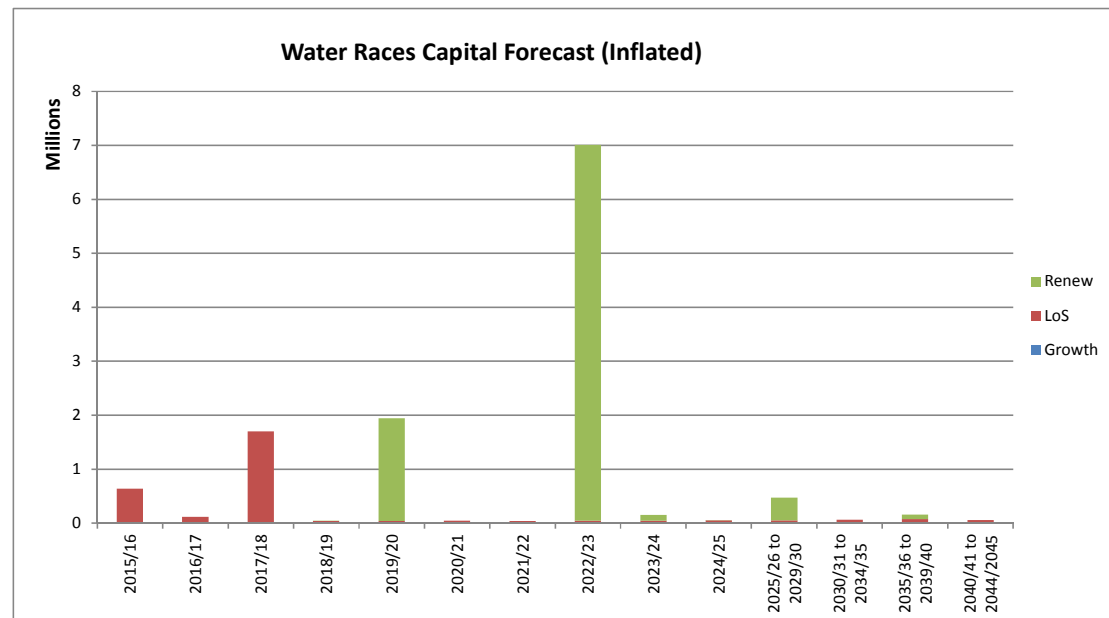
**Figure 6.6: Projected Capital Expenditure – Land Drainage**



## 6.6 Water Races

The projected capital expenditure associated with the water race infrastructure assets are graphically represented below:

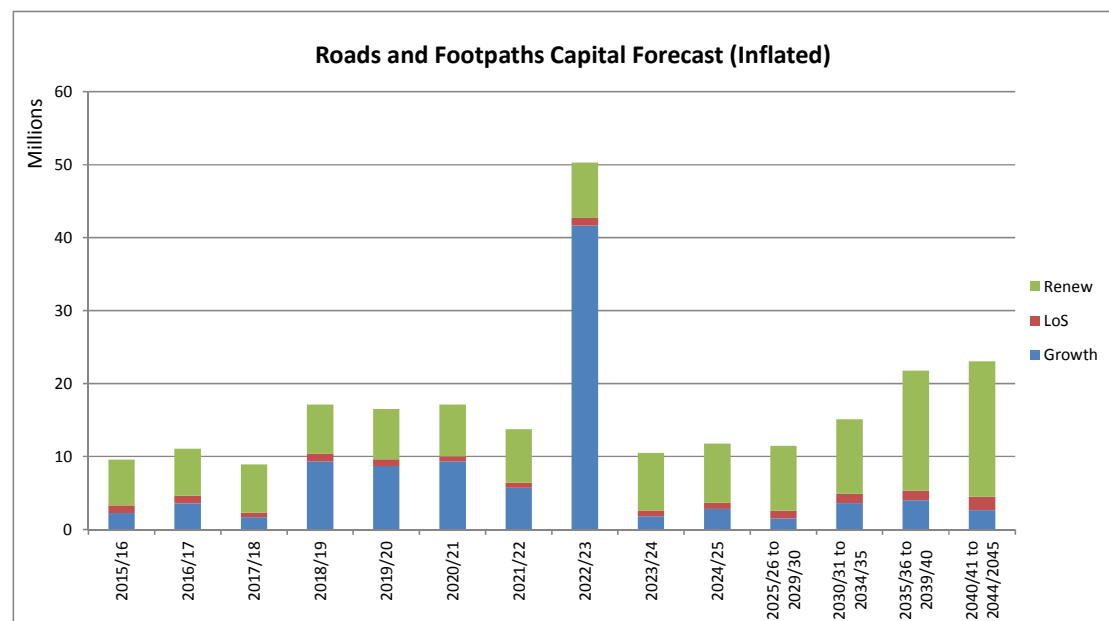
**Figure 6.7: Projected Capital Expenditure – Water Races**



## 6.7 Roads and Footpaths

The projected capital expenditure associated with the roads and footpaths infrastructure assets are graphically represented below:

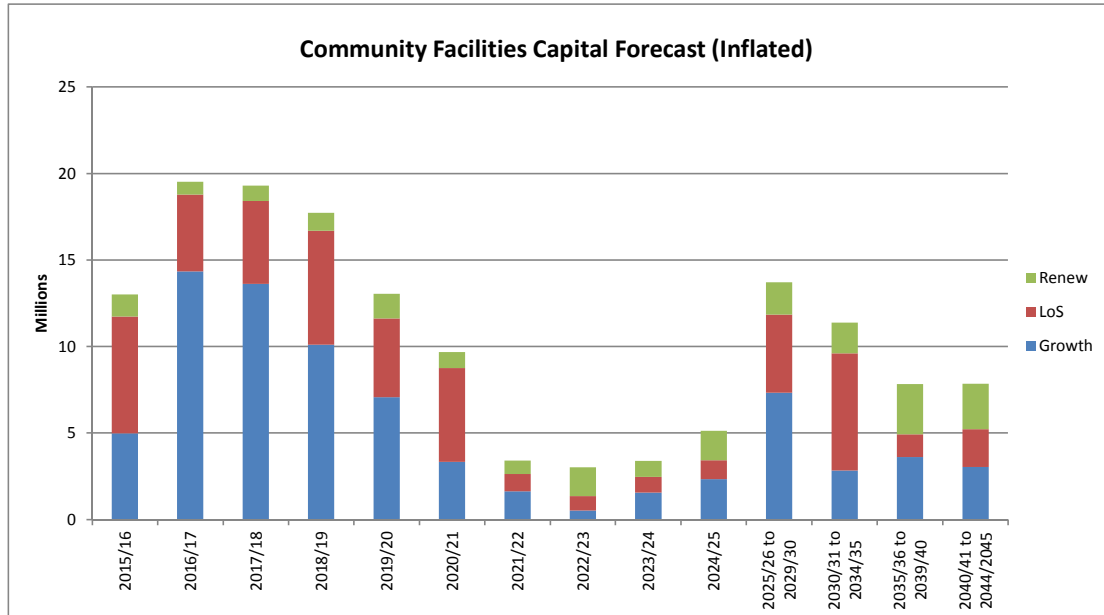
**Figure 6.8: Projected Capital Expenditure – Roads and Footpaths**



## 6.8 Community Facilities

The projected capital expenditure associated with community facilities infrastructure assets are graphically represented below:

**Figure 6.9: Projected Capital Expenditure – Community Facilities**





## **Quality Record Sheet**

### **Selwyn District Council 30 Year Infrastructure Strategy 2015 - 2045**

#### **Issue Information**

Issue Purpose	Final for LTP (Post Consultation)
Issue Date	15 June 2015
Version Number	1.1

#### **Authorisation**

Selwyn District Council	Murray Washington
Prepared By	Grant Holland
Reviewed By	Murray Washington
Date	9 December 2014
Reference No.	64-057-1109 & 1110



