

# INFRASTRUCTURE STRATEGY



# OUR INFRASTRUCTURE STRATEGY

This is Buller District Council's second Infrastructure Strategy. It has been prepared from Councils 2018 suite of Asset Management Plans and the Long Term Plan of which it forms part of.

The issues and topics discussed in the Infrastructure Strategy reflect the current legislative environment and the communities' priorities across the district.

It covers core infrastructure including roads, water supplies, sewage treatment and disposal, and stormwater.

The Infrastructure Strategy includes financial forecasts which are estimates. The reliability of those forecasts decreases beyond ten years and out to the thirty years that this strategy covers.

## WHAT ARE THE GOALS OF THE INFRASTRUCTURE STRATEGY?

The role of infrastructure is to support, promote and achieve the Council's Community Outcomes.

### The core of our strategy is:

1. To provide the best range of services that are affordable for the community
2. To focus on efficient and effective delivery of services
3. To seek out savings while maintaining the assets in a sustainable manner.

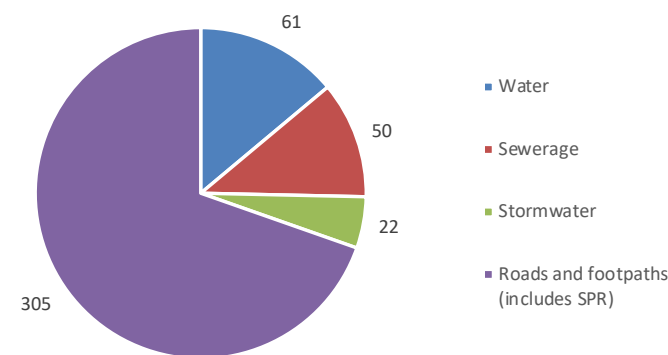
## WHAT DOES OUR INFRASTRUCTURE LOOK LIKE?

Buller District Council manages \$378.9m of infrastructure assets.

Asset	Description	Replacement Value	% of total
Water	Water extraction, treatment and distribution. 10 schemes	\$60.95m	14%
Sewerage	Wastewater collection, treatment and discharge	\$49.73m	11%
Stormwater	Stormwater collection and discharge	\$21.95m	5%
Roads & footpaths	Roads (arterial, collectors, local; curbs and gutters), bridges, footpaths	\$304.81m	70%
<b>TOTAL</b>		<b>\$437.44m</b>	<b>100%</b>

## REPLACEMENT VALUE - INFRASTRUCTURE ASSETS

Infrastructure valuation (2017: \$millions)



## 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)
Identifies the district and provides context	2 (a)
Identifies the Core infrastructure included in this strategy	2(a) and 6
Discusses the significant infrastructure issues and the associated assumptions	2(a) & (b)
Illustrates the linkage between strategic documents	2
Documents the strategic statements that will guide decision-making for the next 30 years	2(b)
Identifies the response options for the significant issues and documents benefits, cost, when and funding source	2(b); 3(a) to (e) & 4(a)
Identifies the costs associated with the actions proposed	4(a) to (c)

## 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.”

## CORE INFRASTRUCTURAL ASSETS

**The core Buller District Council Infrastructure Assets are tabled below:**

**Table 2.2: Buller District Infrastructure Assets**

Asset	Description	Replacement Value	% of total
Water	Water extraction, treatment and distribution	\$60.95m	14%
Sewerage	Wastewater collection, treatment and discharge	\$49.73m	11%
Stormwater	Stormwater collection and discharge	\$21.95m	5%
Roads and footpaths	Roads (arterial, collectors, local; curbs and gutters), bridges, footpaths	\$304.81m	70%
<b>TOTAL</b>		<b>\$437.44m</b>	<b>100%</b>

## OTHER ACTIVITIES

Council has elected to develop this Infrastructure Strategy to cover Core Community Infrastructure as required by the Local Government Act:

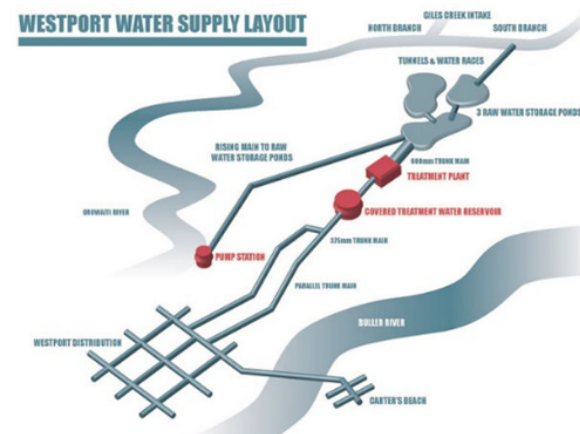
- Water
- Sewerage
- Stormwater
- Roads and footpaths

This infrastructure strategy addresses roads, water supplies, sewage treatment and disposal, and stormwater. In time the data collection for the other assets such as parks and reserves, cemeteries and buildings will be improved and included in future strategies. The Council is at present preparing asset management plans for parks and reserves, cemeteries and buildings and this strategy does not address these other activities.

## INFRASTRUCTURE PERFORMANCE

Generally, the portfolio of assets owned and managed by the Buller District Council is performing appropriately for the Levels of Service agreed with the community.

There are small communities where reliability is key, and a limited service is acceptable. This is a challenge for Council to balance, particularly for water quality. Examples of this are the number of schemes where communities are hands-on operators and the 2015 decision of the Karamea community against establishing a community water supply. These communities are determined and have a culture of being self-sufficient.



There is currently (2018) a national focus on drinking water management and this is an ongoing and important conversation for Council and the Buller community. With several schemes having no form of treatment or disinfection, and three schemes on permanent boil water notices, changes are imminent. Two schemes need more certainty over ownership before action is taken to improve the water treatment system.

Council remains committed to work with the Buller communities around safe drinking water requirements within community affordability constraints.

Stormwater networks are limited and provide a satisfactory service most of the time. However, once rainfall exceeds moderate levels and outfalls are affected by floodwaters or tides, performance is hampered. In Westport, long term decisions around flood protection led by the West Coast Regional Council will override localised stormwater issues. Council is continuing to liaise with the West Coast Regional Council regarding Westports flood protection from the Buller River, coastal protection, and any subsequent stormwater system installation Council may require. This integrated approach is currently in the investigation phase, with analysis reports being undertaken. Potential design directions have not been finalised and as such any costing of potential future work would be speculative. Dependant on design decisions a future Buller DC Infrastructure Strategy may include additional stormwater capital expenditure for Westport.

The reticulation serving communities varies in age as development occurred within the townships. This information as well as condition is being gathered and recorded in the computer based asset management system. The renewal programmes that have been developed in the asset management plan are developed taking into account the criticality of the pipe, as well as age, condition and material. Reticulation renewal is required in a timely manner to ensure pipes provide the level of service required.

It is noted that only 9% of water pipe reticulation and 2% of wastewater pipe reticulation are asbestos cement pipe, and as a result asbestos cement pipe is not considered to be a material issue in the management of Councils pipe reticulation.

With the road and footpath network, resilience is the primary focus. The local and state highway networks operate as one, with economic, social and tourist activity reliant on the 'one roading network'.

Performance issues with the local network are not having a significant impact on the economy or the districts communities. The capability of the network including bridges is the main performance issue that requires consideration. Keeping up with maintenance and renewal work remains vital to preserve the asset and provide a satisfactory level of service.

## EMERGING ISSUES

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

- Demographic changes
- Environmental impacts and climate change
- Economic Change
- Continually changing legislative environment (Central & Regional Government)
- Infrastructure resilience
- Aging of infrastructure
- Other community infrastructure

## DEMOGRAPHIC CHANGES

The population of the district is reasonably stable and is now predicted to remain stable. This differs from three years ago when a decline was expected. There is an increasing number of visitors to the area, and this creates different demands on assets, particularly peak loading.

The council is maintaining assets at present to ensure that they are functioning, with renewals kept as low as possible.

## NEW TECHNOLOGIES

Clearly over the thirty-year period of this strategy be some huge advancement in technology that affect the demand for infrastructure and the methodology for infrastructure provision. While there will be progressive improvements overall that can be considered, disruptive technologies are highly unpredictable. The roll-out of high speed internet is welcomed across Buller district, and this will provide greater opportunities for remote businesses to develop, and others to advance their use of technology.

In preparing this strategy while we are aware that there will be advancement we have by necessity based our projections and maintenance costs on the methods that in use today.

## ECONOMIC CHANGE

With an underpinning economy of mining and developing agriculture and tourism sectors, Buller economy is very prone to external influences. New opportunities are developing and there is a positive outlook. BDC is mindful that infrastructure investments must be 'in-tune' with the current economy and future opportunities unfolding.



*Denniston*



Denniston

## CHANGING GOVERNMENT PRIORITIES AND LEGISLATIVE ENVIRONMENT

The government's priorities for infrastructure are discussed in the National Infrastructure Plan (2015); the vision in the document is:

**By 2045 New Zealand's infrastructure is resilient and coordinated and contributes to a strong economy and high living standards.**

The key responses, which local government are partner to are:

- Increasing understanding of levels of service and future drivers of demand.
- Strengthening asset management.
- Ensure that we have the right settings to make decisions in the future.

The impacts from the Havelock North Water Inquiry are significant and wide ranging including but not limited to the way the water service is delivered, managed, operated, maintained, monitored and reported on.

The Inquiry recommends significant legislative changes relating to potable water.

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.

## Summary: The Thirty Year New Zealand Infrastructure Plan 2015

Vision: By 2045 New Zealand's infrastructure is resilient and coordinated and contributes to a strong economy and high living standards

Desired outcomes: better use of existing assets and Better allocation of new investment



## ENVIRONMENTAL IMPACTS AND CLIMATE CHANGE

Coastal erosion is a long-term natural hazard that affects the West Coast of New Zealand in particular due to the prevailing wind conditions. Significant erosion can occur due to storm events, throughout New Zealand

One asset affected by coastal erosion that is within Council's responsibility is the Westport Airport. Protection works have been undertaken to ensure the airport remains in service. Loss of the airport would be significant for the area in terms of economic activity and transport resilience.



*Ngakawau*

Severe storms and resulting flooding is a particular concern for the Westport township located on the banks of the Buller River. Flooding puts lives at risk as well as causing significant damage to homes and infrastructure such as stormwater systems and roading.

The New Zealand government has been looking at the natural hazards issue for a long time now. With the potential risk of increased frequency and magnitude of severe storms in the future due to climate change, the government will be taking the lead. They have provided some direction to local government on this.

In the meantime the Buller District Council is working with the other West Coast councils and the West Coast Regional Council on strategies for managing natural hazards, and the issue of longer term climate change adaption and mitigation.



*Surface flooding at Carters Beach (February 2018)*

## INFRASTRUCTURE RESILIENCE

Customers have a high expectation of continuing functionality and service delivery. While communities are resilient themselves, they are reliant on services provided to support their long term wellbeing. As the impact of risks such as coastal erosion, earthquakes and floods are better understood, there is an opportunity to identify better infrastructure management

Resilience is based on a design philosophy which acknowledges that failure will occur at some point in time. Resilience requires early detection and recovery, but not necessarily through re-establishing the failed system through maintenance or capital works.

Buller District Council has undertaken a thorough analysis of resilience issues relating to natural disasters and the managing and mitigating the risks to, and the resilience of, our infrastructure assets from natural disasters. This is discussed in the Buller District Council Lifelines Assets Report (August 2017), and has also informed the level of insurance Council holds against natural disaster events.

In all renewal projects the resilience of the design and materials being used is a factor when determining designs and construction methods.

## AGING INFRASTRUCTURE

The infrastructure was constructed as the various communities were established. From that time the Councils have maintained the systems and replaced or renewed when higher maintenance costs indicated that it was timely. As the townships developed the infrastructure was extended either by the Local Authority or by developers.

This strategy defines in some detail the effect of the aging infrastructure and the timelines for installation. Details of the infrastructure to be replaced will continue to be refined as more data on condition is collected and entered into the asset management data base.

Buller 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.

## COMMUNITY ASSETS

The community looks to Council to help maintain its links to the past and provide for its future wellbeing. At times this involves Council expanding its assets portfolio to include assets that would otherwise be lost or not provided at all. Providing venues for Government agencies and other services such as medical centres are becoming more common in provincial New Zealand.

Until 2018, the Westport harbour was a commercial operation under Buller Holdings Limited, a holding company of the Buller District Council. Council is now undertaking a transition to direct control.

Until July 2016, Holcim NZ Ltd was the principal port user. In 2013 Holcim announced the closure of its Westport plant in favour of silo facilities in Timaru and Auckland taking imported cement from Japan. The MV Westport took the final load of Cape Foulwind cement from the port on the 29th of June 2016.

The port is currently in another stage of evolution, its international facilities have ceased and there is a greater focus on the harbour function. Council's role in the harbour is expected to include a new asset management approach to the harbour, which is likely to be discussed in a future Infrastructure Strategy.



*Westport Harbour*

## ASSUMPTIONS

The following assumptions are a subset of those developed for the 2018-28 Long Term Plan. Those that relate to the long term provision of infrastructure are discussed below.

**Table 2.3: Significant Assumptions**

Significant Assumptions	Risk & Impact
<b>Roading &amp; Urban Development</b>	
<b>New Zealand Transport Agency Funding:</b>	
<p>The New Zealand Transport Agency (NZTA) financial assistance rate provided to Councils roading programmes is currently 63% for Local Roads and 100% for assistance for the Karamea Highway which is a Special Purpose Road (SPR).</p> <p>NZTA advised Council that the FAR rate for local roads will be further increased by 1% each year for the next 3 years from 64% to 66% in year 2020/2021.</p> <p>At the same time the review requires all financial assistance for roading programmes to be judged in terms of the new One Network classifications.</p> <p>This Long Term Plan assumes that the local roads financial assistance rate will increase to 66% until the end of 2020/2021 financial year and the drop back to 61% for the 2021/2022 and it will continue at that rate for the rest of the term of the Long Term Plan. A similar assumption is made that the Special Purpose Road. The 100% financial assistance rate will continue until the end of the 2020/2021 year and will then revert back to State Highway status for the rest of the Long Term Plan. The Long Term Plan also assumes that the present levels of service applied to the District's roads will not be materially different from any new levels established by the One Network classifications. The consequence of these assumptions is that (before inflation) the cost of roading to the ratepayer will be fairly stable.</p>	<p>That the Government will reduce the subsidy available to Councils</p> <p>Any decrease in NZTA funding will require Council to make a decision of whether to increase funding from rates, reduce service levels, remove projects from the Long Term Plan or apply a mix of these options.</p> <p>This means levels of funding will not increase to take account of rising costs of providing the service. Therefore service levels in roading will reduce, this will be particularly evident in higher road roughness levels, maintenance of low volume rural roads and a reduction in vegetation control including mowing.</p>
<b>Karamea Special Purpose Road:</b>	
<p>NZTA have indicated to the Buller District Council that it is proposed that the Karamea Special Purpose Road will lose its designation and revert from 100% subsidy to the Buller District Council's financial assistance rate of 66%, with a three year phase-in period.</p> <p>In examining the unquantifiable risk associated with the long term maintenance of the Karamea Special Purpose Road, the financial risks associated with this proposal are considered be to beyond the financial resources of Buller District Council's ratepayers to fund.</p> <p>At this stage we have assumed that the Karamea Highway revert back to State Highway status from 2021/22.</p>	<p>Financial assistance rate may reduce</p> <p>If the financial assistance rate reduces Karamea Highway will revert to a State Highway.</p>



Significant Assumptions	Risk & Impact
<b>One Network Roding Classification</b>	
<p>A joint initiative between the New Zealand Transport Agency and Local Government New Zealand has introduced a road classification system for all roads in New Zealand. The classification system aims:</p> <ul style="list-style-type: none"> <li>• to deliver similar driving experience across New Zealand.</li> <li>• to support more consistent asset management across the Country.</li> <li>• to make collaboration and prioritisation between those organisations responsible for the planning, delivery, operation and maintenance of the nation’s roading network, leading to a more efficient and safer network and improved value for money.</li> </ul> <p>This will introduce different levels of service across roads of different classification. Council has assumed that there will be no change in the levels of service currently provided.</p>	<p>Financial assistance provision may reduce depending on the levels of funding agreed to be provided by NZTA</p> <p>Council will be faced with two choices:</p> <ol style="list-style-type: none"> <li>1. Change the current level of service provided to that set by NZTA</li> <li>2. Fund the difference between the current service level and that proposed by NZTA from ratepayer contributions</li> </ol>
<p>There will be no subsidisation of footpath and cycling facilities by the New Zealand Transport Agency</p>	<p>No policy change is expected beyond tourism development, therefore footpath and cycling facilities are rates funded</p>
<p>No significant upgrades are required for the increased population</p>	<p>Following a review of likely population and demographic changes throughout the district, it is not expected that the increased usage due to population growth will be significant requiring roading network upgrades. It is believed that there is adequate capacity in the current network for any future growth. It is expected that new roads will be built by developers during the subdivision process</p>
<p>There are currently no resource consents required for stormwater discharges from roading and there is no specific treatment of the stormwater currently required</p>	<p>The low volumes of traffic on Council roads and the passage of road run off through grass berms or grass swales minimises any environmental impact</p>
<b>Water Supplies</b>	
<p>It has been assumed that there will be no significant change to current water demand from any of the Council water supplies</p>	<p>Following a review of population and demographic growth throughout the district little change is expected so risk of under overcapacity is low.</p>
<p>It is assumed that the conditions of Resource Consents held by the Council (requirements and costs) will remain at similar to current levels and that Council will obtain the necessary Resource Consents for planned projects</p>	<p>There is a risk that consent conditions will change or that consent will not be obtained for the Council projects. There is a risk of future changes to consent requirements as a result of the implementation of National Policy Statements, and Freshwater Management legislation. If consent conditions change, expenditure may increase to comply with the conditions and this may have an impact on water supply revenue (rate) requirements. If consents cannot be obtained for planned projects, the project may be delayed or may not proceed</p>
<p>Changing expectations from customers or future legislation changes may affect the appropriateness of existing consents</p>	<p>However it should be noted that there can be no certainty regarding the receipt of the subsidy from the Drinking Water Assistance Programme (DWAP) and should the subsidy not materialise, there would need to be consultation with the community and the decision to upgrade or not would be based on affordability and legislative requirements.</p>
<p>Assistance will be available through the Ministry of Health to provide financial assistance to all Council water supplies where treatment upgrades have been provided for</p>	<p>There is a risk that scheme upgrades will be mandated and timeframes will require local funding for these upgrades</p>
<p>Council has made application to the Ministry of Health for funding assistance for the upgrade of the Waimangaro water supply. Solutions for other small supplies are still under consideration.</p>	

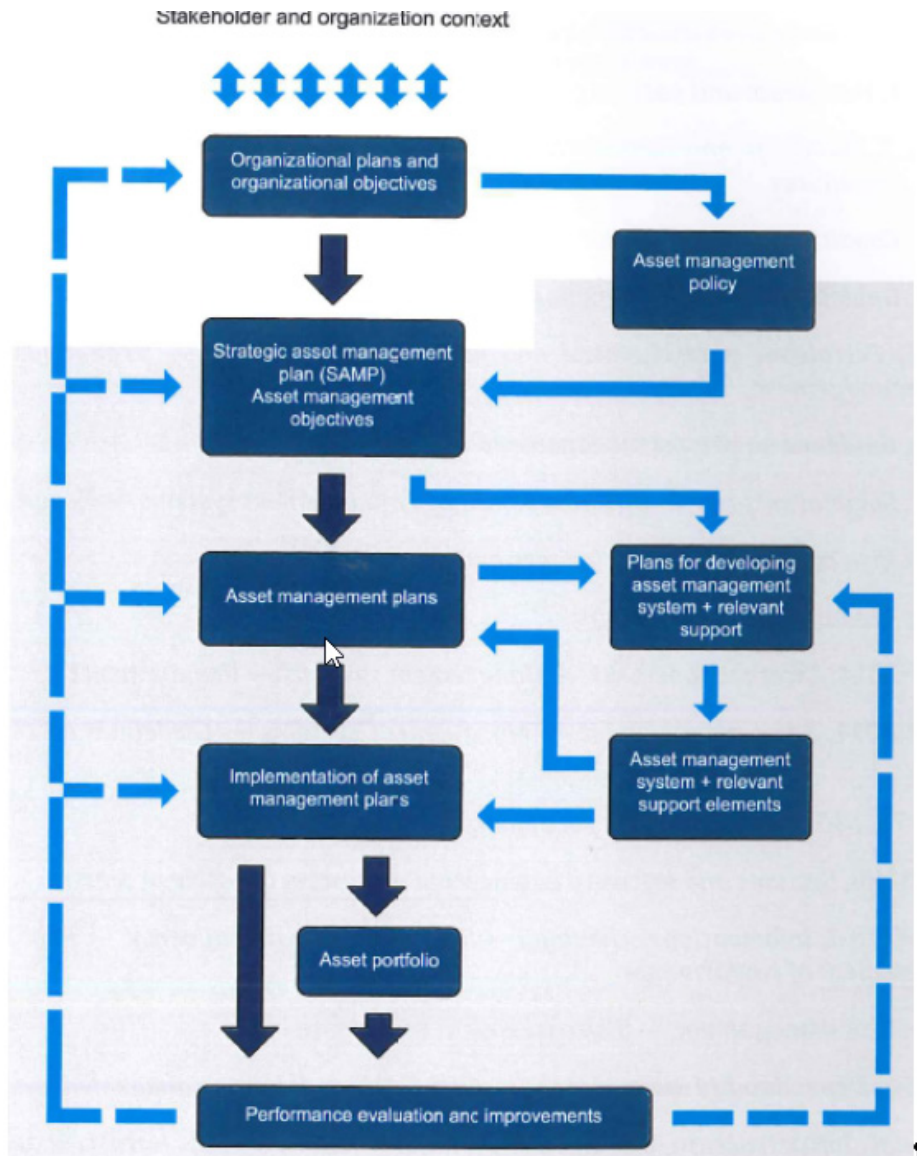
Significant Assumptions	Risk & Impact
<b>Wastewater/sewerage</b>	
It has been assumed that there will be no significant capacity change required for infrastructure to meet to demands	Following a review of likely population and demographic growth throughout the district little change is expected so risk of under overcapacity is low.
Resource Consents will be renewed for Westport sewerage for emergency discharge	There is a risk this consent will not be renewed in a timeframe or with conditions that will cause a response from council that is not budgeted for.
Resource consent to discharge primary treated and untreated sewage effluent to Buller River during storm overflow events was for 20 years from date of issue July 2003	There is a risk from 2023 if this is not approved that further separation of sewer and stormwater in Westport will be required. However the flat grades on many of the sewers will require flushing devices if all stormwater is to be removed
<b>Stormwater</b>	
It has been assumed that there will be no significant growth in urbanised area requiring stormwater reticulation. The only area identified for stormwater reticulation is the North Beach area of Westport	Following a review of likely population and demographic changes throughout the district little change is expected so risk of under overcapacity is low.
Westport is a town only 2 metres above sea level which provides some issues for stormwater collection and discharge. One of the longer term requirements will be to install pumps on stormwater outlets to reduce areas of surface flooding	Council is currently investigating the possibility of installing additional stormwater systems, specifically a large pump station to pump stormwater over the river stop banks. Similar designs are currently deployed in Greymouth and Palmerston North. Further investigation, modelling, and design work will be required given the potential impacts of this possible system. These systems can have complex secondary effects on existing stormwater systems and stormwater flows. Preliminary estimates are in the range \$0.5 million to \$1 million. Council has chosen not to proceed with the system. Future versions of the Infrastructure Strategy will further consider options.
<b>Assumptions Relating to all Activities</b>	
<b>Disasters:</b>	
It is assumed that there will be limited events during the term of this Plan, but that these events will not be significant.	That there is a significant natural disaster in the District, such as flooding, earthquake or fire  Council had adequate insurance to cover natural disasters. However, in the event of a significant event Council will need to re-evaluate its work programme and implement disaster recovery plans.
<b>Climate Change:</b>	
Council uses the Ministry for the Environment (MFE) guidelines set out in “Coastal Hazards and Climate Change 2017” for estimating Sea Level Rise (SLR).	Climatic events might lead to increased costs for Council in both responding to events and building greater resilience into infrastructure  Climate change is likely to increase the magnitude of some hazards, therefore it is important to incorporate risk management in the design of infrastructure supporting new developments to maintain the same level of service throughout the design lifetime. The design of infrastructure for land development and subdivision needs to provide for the impact of sea level rise and the increased frequency of extreme weather events.  Council has budgeted for protection of infrastructure in this plan.

Significant Assumptions	Risk & Impact
<p><b>Inflation/Price Changes:</b></p> <p>In preparing the Long Term Plan Council has utilised the inflation factors as provided by Business and Economic Research Limited (BERL) to be the inflation factors uses to escalate expenses.</p>	<p>There is likely to be some variation in the actual rates of inflation from those assumed and this will impact on the financial results of Council.</p> <p>If the variances are significant, Council may need to consider either increasing or decreasing rates and charges or the levels of services for activities. This would be considered through the Annual Plan process. Escalation has been undertaken using the BERL indices.</p>
<p><b>Useful lives of significant assets:</b></p> <p>Council has made a number of assumptions about the useful life of its assets. These assumptions affect the depreciation charge contained within the Plan. The detail for each asset category is reflected in the Statement of Accounting Policy. Council's assets depreciation rates are contained within of the Statement of Accounting Policies.</p>	<p>That the lives of assets are materially different from those contained within the Plan.</p> <p>If the life of the assets are materially different from those contained within the Plan, the asset values stated in the prospective balance sheet and the profit contained in the prospective statement of financial performance would be affected. If the life was shorter than expected then Council might need to replace the asset sooner than planned and this would need to be funded. Council has a long history of managing assets and has asset management practices in place which reduce the likelihood of assets being very different to projections.</p>
<p><b>Significant Asset Condition:</b></p> <p>Council understanding of condition of its assets underpins the renewal forecasts in the Long Term Plan (and also the significant lives of assets discussed above). Council has sufficient information about the condition of its assets to forecast their probable replacement periods. However, further more detailed information is desirable to further reduce the risk that actual condition varies from the assumed condition.</p>	<p>That condition information is not a sufficiently accurate representation of the actual condition of assets.</p> <p>If the asset condition is substantially worse than expectations then there is an increased risk of unexpected asset failure and the increased costs of repairing assets would need to be funded. These costs are not in the Long Term Plan and Council would need to consider how they should be funded - higher rates, use of cash reserves or debt would be options.</p>

## LINKAGE WITH OTHER DOCUMENTS

The following diagram illustrates the Infrastructure Strategy Linkages with other documents in the Asset Management and Strategic Planning Context.

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



## THIRTY YEAR STRATEGY

In its role as Local Authority Buller 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 derived from Council's Community Outcome Statements and Long Term Plan Community Outcomes are the goals that Council wants to achieve for the Community. They reflect what the Community sees as important for its well-being and they help to build up a picture of the collective vision for the District's future. The outcomes guide decision-making by Council. The Council links its activities and services back to the outcomes.

**Table 5.1: Strategic Statements**

Strategy #	Strategic Statements
1	Wellbeing: a vibrant, resilient, healthy & safe community with access to quality facilities & service
2	Learning: a district that values & supports learning with accessible, relevant education & training opportunities
3	Who we are: a 'happening' region with a strong community spirit & distinctive lifestyle
4	Sustainable Environment: the distinctive character of the environment appreciated & retained
5	Prosperity: a thriving, resilient and innovative economy creating opportunities for growth & employment

## APPLYING THE STRATEGIC STATEMENTS TO INFRASTRUCTURE PLANNING

**Wellbeing: A vibrant, healthy & safe community with access to quality facilities & service**  
**Infrastructure provision actions discussed in this strategy that support this statement include:**

- Provide access to quality amenities for physical activity (roading and footpaths)
- Quality drinking water (water supply)
- Number of traffic accidents (roading and footpaths)
- Improved safety in public places (roading and footpaths)
- Emergency Management Programmes and preparedness (all)

### Learning: A district that values & supports learning with accessible, relevant education & training opportunities

#### Infrastructure provision actions discussed in this strategy that support this statement include:

- Provide access to quality amenities for physical activity (roading and footpaths)

### Who we are: a 'happening' region with a strong community spirit & distinctive lifestyle

#### Infrastructure provision actions discussed in this strategy that support this statement include:

- Provide access to quality amenities for physical activity (roading and footpaths)
- Improved safety in public places (roading and footpaths)

### Sustainable Environment: the distinctive character of the environment appreciated & retained

#### Infrastructure provision actions discussed in this strategy that support this statement include:

- Provide access to quality amenities for physical activity (roading and footpaths)
- Improved safety in public places (roading and footpaths)
- Emergency Management Programmes and preparedness (all)

### Prosperity: a thriving, resilient and innovative economy creating opportunities for growth & employment

#### Infrastructure provision actions discussed in this strategy that support this statement include:

- Provide access to quality amenities for physical activity (roading and footpaths)
- Quality drinking water (water supply)
- Emergency Management Programmes and preparedness (all)

### The Organisations' Priorities

#### 'Fit for Future'

The theme of **'Fit for Future'** runs through the 2018-2028 Long Term Plan and this Infrastructure Strategy. Buller District Council is aware of the role of infrastructure in providing the basic needs of residents and underpinning economic activity. Alongside a commitment to affordability, this infrastructure strategy will guide Council's investment in future infrastructure.

When Council reviewed the current Long Term Plan and its strategy amongst other things it carried out a SWOT and PESTLE analysis (an evaluation of Buller's strengths, weaknesses, opportunities and threats and a range of factors which could have an effect on the district).

It became apparent that the Buller has a lot going for it, as well as a number of challenges. On the plus side we have resilient communities, cheap land and housing, abundant natural resources, unique natural assets and environment and endless recreational choices.

The main challenges identified included socio-demographic factors: ageing population, retaining our youth in the region, increasing socio-economic issues in the community, geographical isolation and spread; natural hazards, reliance on a few major employers & industries and public perception of our district and region.

It is important that we recognise that successful communities have a balance of offerings that when combined provide a district that is attractive as a place, to work, live, invest and visit and is **'Fit for Future.'** This includes:

- Resilient and reliable public infrastructure and transport options
- Schools that strive to provide the best quality education and consistently aim to turn out high achievers
- Fit for purpose health facilities and social services
- First class leisure and recreational facilities and opportunities
- Strong and connected social networks and public spaces that facilitate this
- A resilient diversified economy that avoids the boom and bust cycles of the past

Provided that there is a vibrant and flexible local economy that provides jobs there is no reason why the population should not stabilise or even grow. The key to creating a more diversified and sustainable economy and attracting people to our district to live, work, invest and visit is all of the factors above plus the reinvention of ourselves as a district and to change the often negative perceptions of the past. As part of the Westport Revitalisation project that kicked off in 2016-17 the question that was investigated was what are the unique selling points of our district that form part of our 'story' and point us to where we need to go. **Three things came out of this process:**

1. We offer a world class back country biking experience– this is not only through the Old Ghost Road, we also have the tracks being developed in Reefton, the proposed Kawatiri Coastal Trail and other trails than are available for biking/cycling. This lends itself well to Westport and Reefton becoming biking 'hubs'
2. We have the wildest Backyard in NZ –87% of our land is in the DOC estate, we have beach and riverside towns, two national parks in our district and all the recreational and leisure opportunities that go with this. This aligns well with the award winning regional brand 'Untamed Natural Wildness'
3. We are generous and entrepreneurial – During the 7 day makeover it was noted that Westport had the highest level of volunteer participation and donated goods and services of any town large or small who had participated in this process. As a district we have a number of technology and innovation start-ups. Continuing to attract and nurture entrepreneurs and innovators is vitally important to our future

All these things paint a picture of what **'Fit for Future'** could look like. Council's role achieving our vision is primarily as a facilitator. It should provide reliable, affordable services and infrastructure that meet the community's needs, help develop attractive towns and a district that people will want to visit and reside in. And finally Council's role as an advocate cannot be understated. Our district requires its share of regional development to be successful now and in the future and to help transformation into modern attractive locations with all the quality services that are now expected in 21st century communities. Council will also work closely with other Coast councils and DWC to ensure that high speed Broadband access to the internet becomes available across the district along with comprehensive mobile phone connectivity.

This means Council needs to continue to invest in infrastructure assets. Over the life of this plan Council expects to spend \$53m to maintain the level of service we currently have and to modernise our towns if the district is to be truly competitive as a place to live and work and play.

Affordability is one of the key challenges that many Councils, including Buller, faces. In the past 3 years leading up to this plan Council has demonstrated that it has been prudent in the allocation of its expenditure and has come well within its predictions of expenditure and the resultant rates increases. It also rates well in prudence measures by third party rates watchdog organisations.

For this LTP and IS to be sustainable it also needs to be affordable both in the short and long term and to continue with this philosophy. Looking at this LTP operating expenditure is prudent and the resulting rates predictions are in the majority of cases close to the benchmarks that council has set. These benchmarks have been developed keeping affordability for communities at the forefront.

Council continually looks at ways that it can provide better services or provide the same service a different way at a cheaper cost to the ratepayer. Shared services (the new buzzword) with other West Coast Councils are one way that costs can be saved. Council is doing this already with information technology, insurance, finance, civil defence, processing of building consents and planning. There are ways that councils can work with other organisations to set up a tightly focussed Economic Development service that will facilitate the desired economic diversification that Council believes it needs to make our district **'Fit for Future'**.



Reefton

## ASSET AND SERVICE MANAGEMENT STRATEGY

Looking forward, Buller District Council's approach will be a focus on maintaining its infrastructural assets to provide services in the most cost effective manner. This will be achieved through:

1. Robust asset inventory information
2. Improving knowledge about network demand and risks
3. Planning and managing using a prioritised approach (greatest risks and or greatest benefits)
4. Programming works based on priority and cost-effectiveness rather than 'worst first'
5. Seeking the best appropriate combination of maintenance and renewal work, accepting improvement may be limited
6. Acknowledging that currently levels of service may not be sustainable across all services

Buller District Council's lifecycle management approach is relatively straightforward with a

priority on security of service and resilience. Condition monitoring is undertaken to refine renewal programmes. Systems thinking is applied to maintenance works, to seek improved service delivery and reduce costs. As affordability will be an ongoing challenge, lifecycle management practice will be key to driving savings and works prioritisation.

The delivery of roading services relies heavily on the services of contractors. Outsourcing is bundled as regular maintenance work requiring a local presence, or project type work that can be undertaken by a range of contractors who can undertake more finite works.

BDC's Professional Services Unit play a key part in the delivery of services as representatives of the asset owner (Council) and supervisor of contracts. The systems, processes and personnel involved are responsible for ensuring the deliverables provided by contracts (inputs) and transferred into the outputs and outcomes sought by Council.

## 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 is efficient, effective and appropriate; Buller District Council has developed a procurement system which is based on providing fair payment for the delivery of services. Council has utilised a cost plus contract for all of its maintenance contracts with WestReef Services Ltd which is a Council owned entity. The Council uses the system thinking strategy to identify waste in both the delivery of the service and the manner in which the Council conducts its business.

Service Delivery Reviews (LGA 2002 section 17a) are being undertaken for council activities to assess their effectiveness and efficiency. A priority assessment has been undertaken which will guide the level of detail that will be included in the review. The results of these evaluations will be part of future LTPs.

Council is increasing its collaborative and shared services approach. This is generally with other West Coast Local authorities with initiatives such as the common District Plan, funding business cases for roading and Emergency Management. More integration of services should be expected, but without loss of local decision making and character.

## ADDRESSING RESILIENCE

There is a need to increase the sophistication of how we think about resilience, shifting beyond a narrow focus on shock events or infrastructure failure and thinking more about interdependencies, levels of service and community preparedness. A longer-term view needs to be taken with increased focus on adapting to slower changes over time, including climate change. The graphic over the page shows key elements of resilience. Importantly, increased resilience is not necessarily about making things stronger or investing more, and is quite often achieved by operational changes.

### 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.

### In order to improve resilience Council approach will be to:

- Actively participate in CDEM planning and activities, at both regional and local levels
- Consider and action recommendations in Lifelines Reports
- 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

## SIGNIFICANT DECISIONS REQUIRED

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

Key Decision	Indicative Timeframe
Water Supplies – Water Quality and Management Programme of upgrades required and the role of community members as operators	2018/19-2020/21
Wastewater Consent - Westport Consent 408/2 discharge to river during storm overflow expires July 2023.	2020 (for 2021 LTP)
Stormwater improvement and addition of SW Pump Station at Brougham Street	2021/22 following WCRC flood protection decisions
Bridge renewals and upgrades (timing and level of service to be provided)	2018/19-2044/45
Special Purpose Road – options for future management	2018/19-2020/21 Decision prior to 2021/22-2031/32 LTP

## 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 Buller District Council with the benefits and costs are tabled below.

## WATER

**Council’s goal for the water activity is:**

**Council’s principal goal for water over the next ten years is:**

“to provide an adequate supply of water that is of sufficient quality for household, agricultural, commercial and industrial use, which meets the current and future needs of the consumer, in a cost effective manner.”

**Figure 6.1: Water Capital Projects (Inflated)**



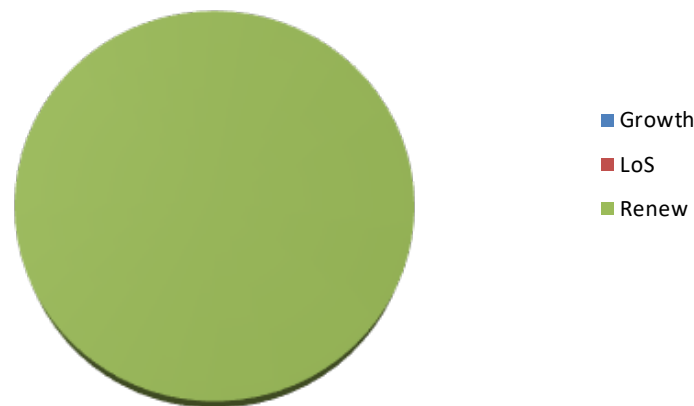
## SEWERAGE

**Council’s goal for the sewerage activity is:**

**Council’s principal goal for wastewater over the next ten years is:**

“to provide cost effective sewerage services for townships, as required by the community, and to continue investigations into minimising any adverse impact of effluent discharges into the environment.”

**Figure 6.2: Wastewater Capital Projects (Inflated)**



Issue	What are we doing?	What is the benefit?	How much will it cost?	When are we doing it	Growth	LoS	Renew
Drinking Water needs to be improved to meet the Drinking Water Standards	Upgrading Water Treatment Plants	Improve public health	\$0.65m	2018/19		✓	✓
	<i>Assumptions</i>	<i>The upgrade will improve the quality of the drinking water. Some expenditure commitment is still awaiting community decisions and may not proceed.</i>					
Ownership of schemes is unclear	Determining Councils role Inangahua Junction scheme	Clarify responsibilities and liabilities	Further consultation required	Further consultation required			
	<i>Assumptions:</i>	<i>The will be a satisfactory solution available that balances legislative requirements and community views</i>					

Issue	What are we doing?	What is the benefit?	How much will it cost?	When are we doing it	Growth	LoS	Renew
Consent is to discharge primary treated and untreated sewage during storm overflow events	Develop joint approach through multi-party discussion	Address issue of potential environmental and cultural impacts in an affordable manner	No cost for discussions	2021/22-2022/23		✓	✓
	<i>Assumptions: It is assumed a decision is made on the preferred flood protection option and the impact on stormwater management in Westport.</i>						



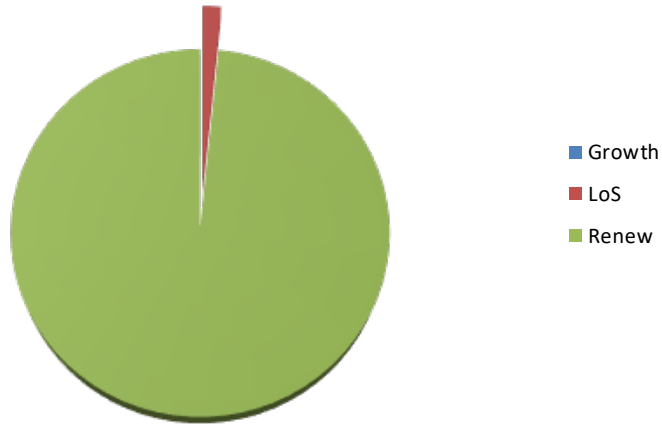
## STORMWATER

**Council’s goal for the stormwater activity is:**

**Council’s principal goal for stormwater over the next ten years is:**

*“to provide for the collection and disposal of stormwater to acceptable environmental standards.”*

**Figure 6.3: Stormwater Capital Projects (Inflated)**



## ROADS AND FOOTPATHS

**Council’s goal for the roads and footpaths activity is:**

**Council’s principal goal for roads and footpaths over the next ten years is:**

*“to provide and maintain a network of roads for the movement of vehicles, goods and people in a safe and efficient manner throughout the District in accordance with Council and NZTA standards.”*

**Figure 6.4: Roads (Local) Capital Projects (Inflated)**



Issue	What are we doing?	What is the benefit?	How much will it cost?	When are we doing it	Growth	LoS	Renew
Localised flooding in Westport	Building new stormwater pump station	Protection of property from flooding	\$0.15m	2018/19	✓		
	<i>Assumptions: The Brougham Street stormwater pump station will proceed following investigation.</i> <i>The mains renewals programme will be refined based on performance and condition.</i>						
	Work collaboratively with WCRC to see flood protection progressed	Protection of property from flooding				✓	
<i>Assumption: A coordinated approach to flooding in Westport will proceed, and that it will provide a satisfactory level of protection for levels and business.</i>							

Issue	What are we doing?	What is the benefit?	How much will it cost?	When are we doing it	Growth	LoS	Renew
Special Purpose Road: funding	Negotiate for NZTA management of the road as a State Highway	Ensure this portion of the area is sustainably funded to ensure levels of service can be met	\$0	2021 /22		✓	✓
Load Capacity and Aging Infrastructure	Bridge Replacements/ upgrades to allow for 50MAX / HPMVs	Ensure continuity of service in a reliable manner. Increase capacity to allow for 50MAX	\$12.9m	2018/19 – 2047/48		✓	✓
<i>Assumptions: The network (including bridges) will perform satisfactorily while a reduced load limit is enforced, until upgraded with some increased maintenance</i>							

Issue	What are we doing?	What is the benefit?	How much will it cost?	When are we doing it	Growth	LoS	Renew
Aging Infrastructure	Resurfacing	Maintain level of service and asset preservation	\$0.61m per annum	2018/19-20/21			✓
			\$0.49m per annum	2021/22 – 2047/48			
	Assumptions	The resurfacing programme will be refined based on performance and condition					



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(February 2018)

## SUMMARY OF SIGNIFICANT INFRASTRUCTURE ISSUES

In 2015 the infrastructure strategy illustrated the key issues requiring an Infrastructure response as follows.

In 2018, many of these issues remain pertinent, with water quality issues continuing and becoming increasingly important

## OTHER INFRASTRUCTURE MANAGEMENT SCENARIOS CONSIDERED

Given the current economic context, Buller District Council has three broad options in terms of infrastructure management and provision.

1. Reduce the level of spend; this would result in a decrease in the level of service, or an increased level of risk of sustainable asset performance.
2. Continue with the 'current' approach
3. Increase expenditure where investment in infrastructure may assist economic growth.

Since 2015, the outlook for Buller district has improved and the population is relatively stable. Investment in infrastructure remains tight, but economic opportunities are being developed. Council is working more closely with the other councils in the region, such as a combined business for roading investment.

Specific options are discussed under each activity area.

## FINANCIAL ESTIMATES

The LGA 2002 Section 101B – Infrastructure Strategy states:

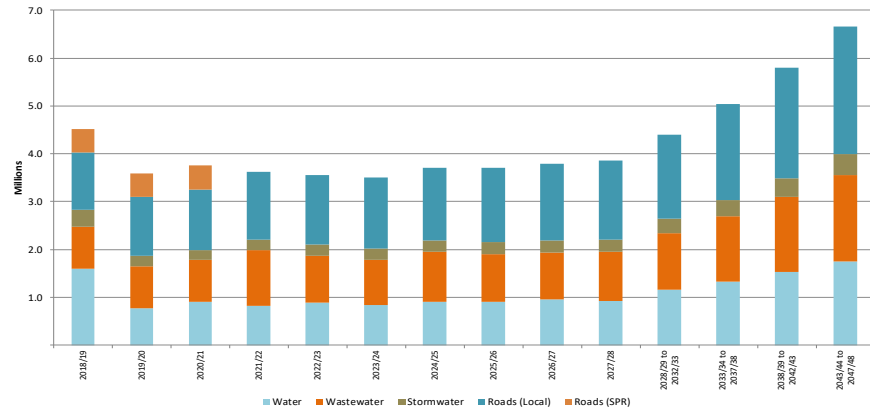
- (4) The infrastructure strategy must outline the most likely scenario for the management of the local authority's infrastructure assets over the period of the strategy and, in that context, must—
  - “(a) show indicative estimates of the projected capital and operating expenditure associated with the 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

### Total Expenditure

The projected capital expenditure associated with the significant infrastructure assets are graphically represented below. The five year blocks from 2028/29 to 2047/48 represented as annual average expenditure for the five year forecast period:

## COMBINED INFRASTRUCTURE FORECAST – CAPITAL (INFLATED)

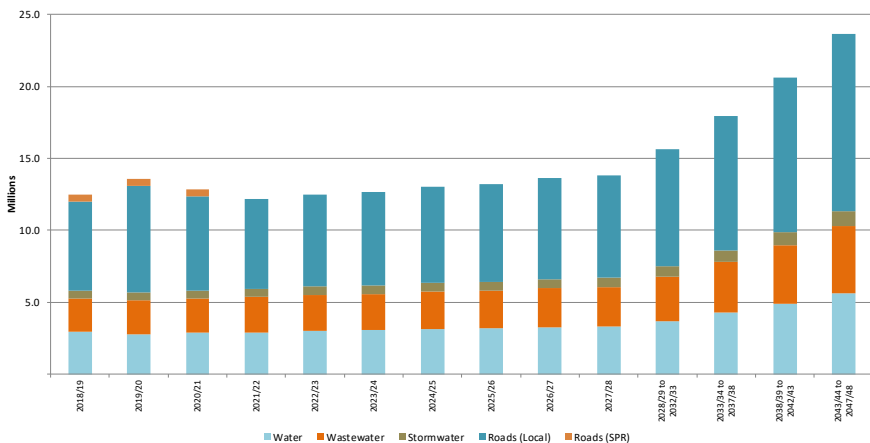
Figure 7.1: Projected Capital Expenditure - Infrastructure Assets



Note - SPR = Special Purpose Road

## COMBINED INFRASTRUCTURE FORECAST - OPERATIONS & MAINTENANCE (INFLATED)

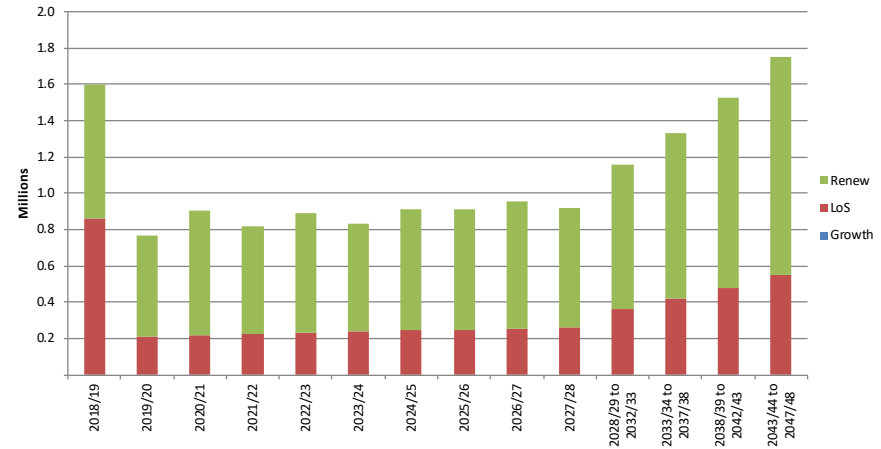
Figure 7.2: Projected Operational Expenditure - Infrastructure Assets



## WATER SUPPLY FORECAST (INFLATED)

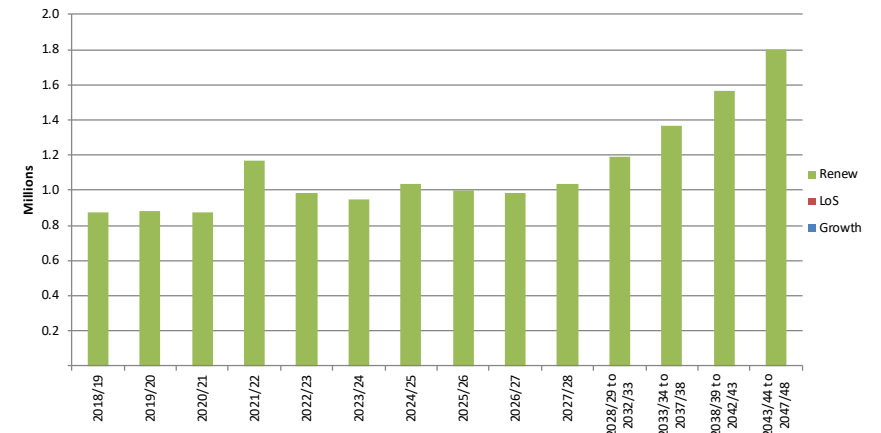
The projected capital expenditure associated with the water infrastructure assets are graphically represented below:

Figure 7.3: Projected Capital Expenditure – Water



## SEWERAGE FORECAST (INFLATED)

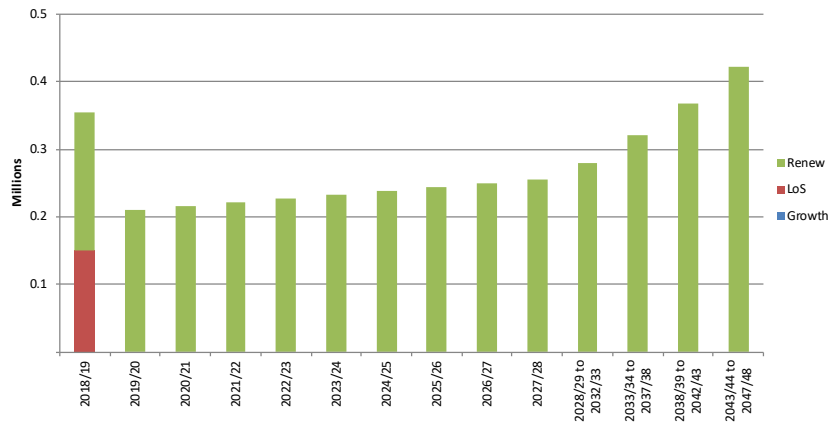
Figure 7.4: Projected Capital Expenditure – Sewerage



Note LoS = Levels of Service

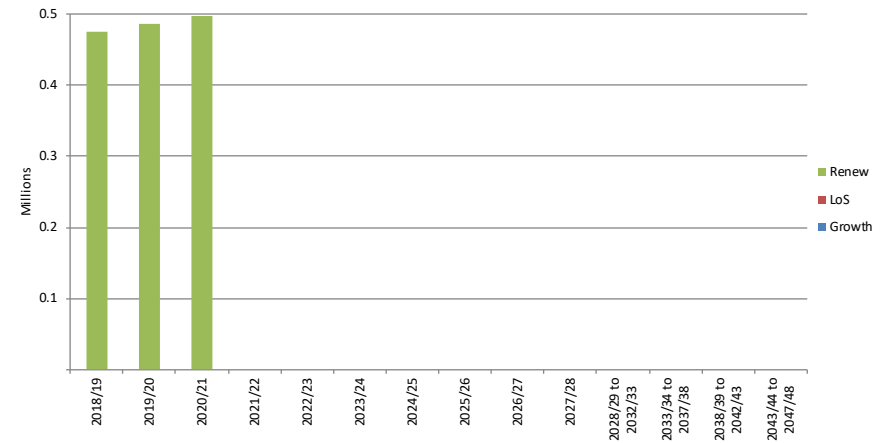
## STORMWATER FORECAST (INFLATED)

Figure 7.5: Projected Capital Expenditure – Stormwater



## ROADS - SPECIAL PURPOSE ROADS FORECAST (INFLATED)

Figure 7.7: Projected Capital Expenditure – Roads, Special Purpose Roads



## ROADS AND FOOTPATHS - LOCAL FORECAST (INFLATED)

Figure 7.6: Projected Capital Expenditure – Roads, Local and Footpaths

