

## TRANSPORT SUMMARY

Council provides the transport activity to allow people and goods to move around the District safely and efficiently by any transport mode including cycling, walking or passenger transport.

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

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

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

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

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

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

### Strategic issues

Our key strategic issues for Taupo District which we will need to address over the coming years are identified below. These were identified during the meeting with NZTA at the point of entry discussions as part of the Business case approach. Some of these are reflected in the key themes identified in our 30 year Infrastructure strategy;

- With the population demographics seeing an aging population this means the cost of maintaining the level of service will affect those in the community particularly those on a fixed income.
- An increase in HPMV and 50 Max vehicles places an increasing demand on our unsealed roads and particularly on our low cost pavements.
- Bridge network needs some expenditure to maintain to keep the bridges safe and accessible. As the age of the bridges will become an issue in the future regular maintenance is required.
- Population growth is occurring in Taupo and Kinloch urban areas but declining populations in both Turangi and Mangakino.
- Seasonal traffic demands from both tourism and events, particularly in summer months, combined with the influx of growth in residential lots and more people retiring to Taupō it is placing pressure on key intersections coming into Taupō namely Norman Smith intersection and Tongariro Street/Spa Road.
- Implementation of the Commercial Industrial Structure Plan projects identified.

Council adopted a Walking and Cycling strategy in 2010 which identifies the strategic direction for the future planning (including funding and management) footpaths and cycleway facilities for the District. The focus of the strategy is on a transport network which encourages and supports safe walking and cycling for everyone. The strategy was to be updated in 2017

however it was decided to consider including this in a Transport Strategy which will include all modes of transport. A project plan is being developed with the timing proposed to be completed prior to the next AMP 2021-2014 round.

Passenger transport within the District is administered by WRC and subsidised by Taupo District, which currently funds one bus route. We are currently undertaking a review of the bus service and bus route. This was seen to be a good opportunity prior to the next contract being let in June 2018. To date we have had completed a survey, two focus groups and a workshop with key stakeholders. From this draft options are being developed and will be bought back to the key stakeholders for further comment before being adopted by Council.

### Transport assets

Council is responsible for the management of road and traffic assets with a replacement value of approximately \$457 million (as per the latest valuation August 2017). Since the last AMP an additional 18km of sealed road has been vested to Taupō District Council with the inclusion of the former SH1 and SH5 known as Wairakei Drive, Lake Terrace and Napier Road. To provide a safe transport network, Council manages the assets listed below:

**Figure 1 Summary of Transport Assets**

<b>Asset</b>	<b>Quantity</b>
Roads – sealed	708km
Roads - unsealed	73km
Footpaths	297km
Street lighting	4,169 lanterns
	3,000 poles
Traffic services	28,118 signs and markings
Bridges	21 road bridges (2 with shared ownership)
	4 foot bridges
Culverts	61 large culverts (diameter greater than 2m)
	2,373 small culverts (diameter less than 2m)
Drainage	490.3km
Cycle ways	38 km
Parking	97,708m <sup>2</sup>
Structures	9 Taupo urban bus shelters

### State of the assets

The last NZTA Road Infrastructure Assessment Survey was undertaken in July 2008 it identified the transport network was in very good shape from a road safety point of view and most of the opportunities for improvement were not major issues. It was identified the pavements were well maintained, roads are designed to a high geometric standard and the delineation was to a good standard. While no looming issues there were some relating to intersection layouts, hazard removal and consistency in lane and shoulder widths. The next NZTA Road Infrastructure Assessment survey is to be undertaken in the 4<sup>th</sup> quarter of 2017/2018.

### Levels of Service

Our Council has adopted a number of performance measures which contribute to our community both customer and technical levels of service are used.

Our current levels of service focus on the Department of Internal Affairs which will continue for this AMP but the AMP will also include the new Customer Levels of Service for ONRC. Each road has been given a classification based on the function criteria and the road should be maintained to the customer level of service for roads of its type. Refer to Section 6 for more details.

In this AMP we will also be using the One Network Road Classification – customer levels of service: This supports a major shift in the way we manage the road network at both national and regional levels. The most important concept behind the ONRC is that it places the customer at the centre of every investment decision.

The associated Customer Levels of Service for each functional category have been developed to reflect the following six fit for purpose outcomes.

#### Mobility

- 1) Reliability: the consistency of travel times that road users can expect.
- 2) Resilience: the availability and restoration of each road when there is a weather or emergency event, whether there is an alternative route available and the road user information provided.
- 3) Speed: indicates the optimal speed for each road. The optimal speed is the speed that is appropriate for road function (classification), design (including safety) and use. Optimal speeds support both safety and economic productivity.

#### Safety

How road users experience the safety of the road.

#### Amenity

The level of travel comfort experienced by the road user and the aesthetic aspects of the road environment.

#### Accessibility

The ease with which people are able to reach key destinations and the transport networks available to them, including land-use access and network connectivity.

### **Demand forecasts**

Council's growth model (transport) projects growth of an additional 1,304 residential lots and HEU in commercial and non-residential properties for the 2018-2028 period.

<b>Financial Year ENDING</b>	<b>18/19</b>	<b>19/20</b>	<b>20/21</b>	<b>21/22</b>	<b>22/23</b>	<b>23/24</b>	<b>24/25</b>	<b>25/26</b>	<b>26/27</b>	<b>27/28</b>
<b>Total new lots per year</b>	<b>135</b>	<b>161</b>	<b>162</b>	<b>151</b>	<b>122</b>	<b>126</b>	<b>122</b>	<b>134</b>	<b>97</b>	<b>94</b>
<b>Running Total for LTP</b>	<b>764</b>	<b>925</b>	<b>1087</b>	<b>1238</b>	<b>1360</b>	<b>1486</b>	<b>1608</b>	<b>1742</b>	<b>1839</b>	<b>1933</b>

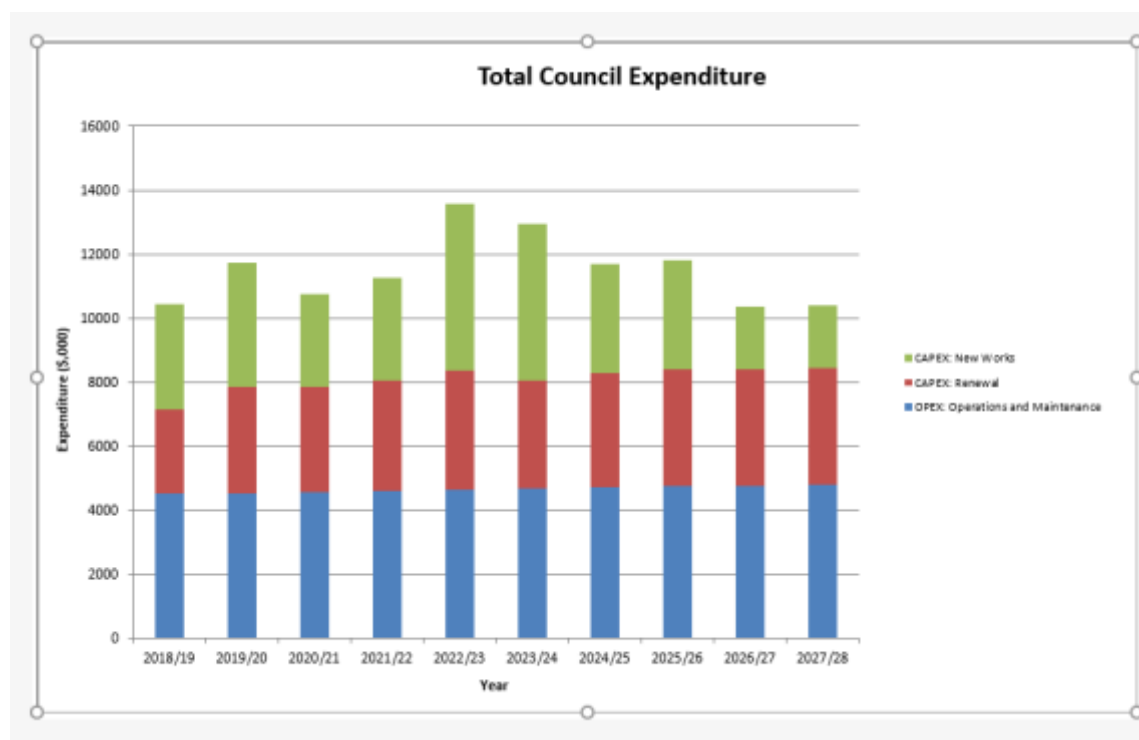
The growth in properties in the district drives the need for road widening, new roads and new infrastructure etc.

### **Financials**

Our district is relatively young and as the Taupo district has free draining soils roads generally last longer than in other parts of the country, which means many of our infrastructure assets including roads are in good condition and will not need renewing or upgrading for some years. Due to this we have projected large cash reserves which will be needed in the future years to fund the renewal of the assets.

Budgets within the AMP will be confirmed during the Long Term Plan (LTP) process.

The ten year financial forecast was determined by the continuation/evaluation of current maintenance and renewal strategies within each of the components, i.e. pavements, footpaths, lighting etc and identification of new works. The 10 year projections are summarised in Figure 2 below. Note this is based on draft LTP budgets which are still in discussion.



**Figure 2 Transport expenditure, 2018/19 – 2028/29**

### **New Works**

Capital expenditure is budgeted at an average of \$2.9 million per year to improve capacity and safety. Council submits a three-yearly land transport programme to NZTA seeking subsidy for major transport projects. Provided that Council receives the subsidies, the largest components of the programme are intended to be:

Project	Value	Period
Poihipi Road widening continuation	\$1,890,000	2018/19 – 2027/28
Minor safety works	\$2,209,000	2018/19 – 2027/28
Cycle strategy implementation	\$342,000	2018/19 – 2027/28
Northern outlet projects	\$1,625,000	2018/19 – 2024/25

The major projects Council is proposing for which it hasn't been determined as to whether they will meet subsidy criteria include:

Project	Value	Period
Tirohanga widening	\$600,000	2018/19 – 2019/20
Huka Falls footpath	\$300,000	2018/19 – 2019/20
Seal extension	\$2,400,000	2018/19 – 2023/24

### **Renewal**

TDC has recently had a deterioration modelling (dTIMS) exercise completed, which in the long term will be more accurate in predicting reseal and rehabilitation costs and optimise timing. The suggested programme has a \$3.06 to \$4.00M/year funding requirement. It is higher than the existing programme based on supplied achievement length and treatment planning unit rates (\$2.51 million). The increase in programme quantities is based on the model recommendations and comparing the outputs with common practice and lifecycle achievements. These recommendations do need to be verified and checked in areas such as data accuracy and quality of pavements and achievement of longer design lives.

Renewal costs vary according to the age and performance of the plant and network. Because the network is relatively young, Council hasn't had to invest as heavily in renewals as it will later in the life of the assets. At the moment, depreciation is valued at an average of \$7.8 million per year, but the average renewal expenditure is budgeted at only \$3.4 million per year.

### **Operations & maintenance**

Operation and maintenance costs are budgeted to average approximately \$4.6 million for the next 10 years, which is higher than the average cost over the past five years, mainly because of higher energy prices and their impact on road maintenance contracts.

### **Lifecycle management tactics**

#### **New works**

New works are planned as a result of growth or where a change in level of service is required or where improvements are planned for quality and/or safety purposes. New works are planned at a longer time frame according to the Councils funding ability.

#### **Renewal**

Replace assets as their condition falls below the level of service, rather than at theoretical end of life based on age of asset. This includes replacement and rehabilitation of existing assets to their original condition and capacity.

#### **Operations & maintenance**

To maintain the asset in good repair and condition, in order to increase its lifecycle and decrease its renewal component. The operations team via contractor has scheduled preventive maintenance programmes so as to optimise the life of the asset and reduce renewal cost.

#### **Disposal**

Where transport assets are surplus to requirements or no longer meet the required level of service, they are renewed and the existing asset is disposed of at this time. E.g. signs, streetlights.

Council has now acquired approximately 18km of roads since the last AMP. Wairakei Drive, Lake Terrace, Tongariro Street and Napier Road are now included in the maintenance and renewal programmes. East Taupō Arterial is now under NZTA ownership and management.

### **Technical Notes**

#### **Risk Management**

Risk management is an important element in the development and management of Council assets. The high risk areas in transport are:

- vehicle crashes, due to weather conditions such as ice and/or snow

- damaged or blocked roads and road structures, due to slips fallen trees, floods, storms, or vehicle crashes.

### ***Asset Management Practices***

Council uses a range of decision making tools to establish its maintenance, renewal and new works expenditure, including: process, analysis and evaluation techniques for life cycle asset management; information systems to store and manipulate data; and data and information from a number of sources (technical, financial, customer service).

### ***Plan Improvement Programme***

- Councils are required to have plan improvement programmes to improve their asset management planning. Council staff will continue to work through the various elements of the improvement plan.

### ***International Infrastructure Management***

The plan is an intermediate plan based on the requirements of the International Infrastructure Management Manual.