# **Significant Forecasting Assumptions**

The table below identifies the Significant Forecasting Assumptions that Council has made for this Long Term Plan (LTP) and the risks and the level of uncertainty associated with each assumption as well as the potential effects/impact of this uncertainty.

| Assumption            | Populatio  | n growth is  | assumed at   | a rate of m  | nore than 19  | % per year f                  | or the 20 ye   | ear period o   | of this LTP.   |  |   |
|-----------------------|--|--|--|--|---|-------------------------------|--|--|--|--|---|
| Detailed<br>Forecasts | percentile resulting i   | projections  | s state that t<br>eople over t                                   | he populati  | on will grow<br>period; and   |                               |  |  |  |  |   |
|                       | 2038 results   | ulting in:  847 more personal set June 20  nomic proje             | eople over t<br>38 the popu                                      | he 10 year<br>ulation fored                                  | period; and<br>cast is 41,12  | 28.                           | Ü  | ·  |  |  |   |
|                       |  |  |  | ject will hav  |   | ation growth                  |  |  |  |  |   |
|                       |  | n Northern (<br>r the life of t<br>This                            | his LTP.   | _  | e on popul  | ation growth                  | n. The belov   | w table sho  | ws the fored   | casted popu  | ulation                                       |
|                       | growth for Last Year   | This<br>Year   | his LTP.   | Yr 2   | ve on popul   | ation growth                  | r. The below   | w table sho  | Yr 7   | Yr 8   | Yr 9  |
|                       | growth for<br>Last<br>Year<br>16/17                                      | This<br>Year<br>17/18  | Yr 1<br>18/19  | Yr 2<br>19/20  | Yr 3 20/21  | Yr 4 21/22                    | Yr 5 22/23   | Yr 6 23/24   | Yr 7  24/25  | Yr 8 25/26   | Yr 9 26/27                                    |
|                       | Last<br>Year<br>16/17<br>32,348  | This Year 17/18 32,758   | Yr 1  18/19  33,158  | Yr 2 19/20 33,596  | Yr 3 20/21 34,017   | Yr 4  21/22  34,388           | Yr 5 22/23 34,787  | Yr 6 23/24 35,215  | Yr 7  24/25  35,586  | Yr 8  25/26  35,944  | Yr 9 26/27 36,421                             |
|                       | growth for Last Year 16/17 32,348 Yr 10                                  | This Year 17/18 32,758 Yr 11                                       | Yr 1  18/19 33,158 Yr 12   | Yr 2<br>19/20<br>33,596<br>Yr 13                             | Yr 3 20/21 34,017 Yr 14   | Yr 4 21/22 34,388 Yr 15       | Yr 5 22/23 34,787 Yr 16  | Yr 6 23/24 35,215 Yr 17                                      | Yr 7 24/25 35,586 Yr 18  | Yr 8  25/26  35,944  Yr 19   | Yr 9 26/27 36,421 Yr 20                       |
|                       | Last<br>Year<br>16/17<br>32,348  | This Year 17/18 32,758   | Yr 1  18/19  33,158  | Yr 2 19/20 33,596  | Yr 3 20/21 34,017   | Yr 4  21/22  34,388           | Yr 5 22/23 34,787  | Yr 6 23/24 35,215  | Yr 7  24/25  35,586  | Yr 8  25/26  35,944  | Yr 9 26/27 36,421 Yr 20 37/38                 |
| Risk                  | growth for Last Year 16/17 32,348 Yr 10 27/28 36,886 Population assumed. | This Year 17/18 32,758 Yr 11 28/29 37,281 In growth ac Another ris | Yr 1  18/19 33,158 Yr 12 29/30 37,738 Pross the Hock is that the | Yr 2 19/20 33,596 Yr 13 30/31 38,171 browhenua le population | Yr 3  20/21  34,017  Yr 14  31/32  38,650  District is at a number de | Yr 4 21/22 34,388 Yr 15 32/33 | Yr 5  22/23  34,787  Yr 16  33/34  39,500  ntly different than increase. | yr 6 23/24 35,215 Yr 17 34/35 39,862 t rate (much eases. The | Yr 7 24/25 35,586 Yr 18 35/36 40,259 In faster or s likelihood o | Yr 8  25/26  35,944  Yr 19  36/37  40,684  lower) than of this risk of | Yr 9 26/27 36,421 Yr 20 37/38 41,128 ccurring |

#### **Financial impact**

As the assumption on population growth is fundamental to the information underlying the LTP, the below scenarios have been provided. The scenarios outline the financial implications if population growth were to occur slower or faster than anticipated. Each scenario is modelled independently and is compared to the baseline figures from the Financial Strategy.

## Scenario 1 Slower population growth

On the basis growth occurs at half the rate as predicted, the following growth work programmes would not proceed within the next 20 years:

- Ōhau Water Supply and Wastewater;
- Manakau Water Supply and Wastewater;
- Waikawa Beach Water Supply and Wastewater;
- Waitarere Beach Water Supply; and
- Hōkio Beach Water Supply and Wastewater.

The financial implications of removing the above projects over the next 20 years are as follows:

|                   | 2018/19           | 2019/20  | 2020/21  | 2021/22  | 2022/23  |
|-------------------|-------------------|----------|----------|----------|----------|
| Rates income pe   | rcentage increase | es       |          | ·        |          |
| Projected         | 6.53%             | 5.97%    | 5.40%    | 6.42%    | 4.92%    |
| Slower Growth     | 6.53%             | 5.95%    | 5.36%    | 6.12%    | 4.79%    |
| Total rates incon | ne \$000          |          |          |          |          |
| Projected         | \$37,449          | \$39,683 | \$41,826 | \$44,512 | \$46,703 |
| Slower Growth     | \$37,449          | \$39,677 | \$41,804 | \$44,362 | \$46,488 |
| Effect on net deb | ot*               |          |          |          |          |
| Projected         | \$82m             | \$93m    | \$100m   | \$107m   | \$105m   |
| Slower Growth     | \$81m             | \$92m    | \$99m    | \$106m   | \$103m   |

<sup>\*</sup>An increase in depreciation funding reduces debt over time

#### Rate income

- Since the above projects are not necessary due to lack of growth, the income affordability is still within operating measures.
- With removing the above projects, Council will require lower rate increases resulting in less rates income than

anticipated.

#### Rate increases

• In alignment with rate income, the proposed rates will be on average 0.5% lower than predicted.

#### **Debt limits**

• With less capital projects, Council will begin to lower its debt by 2021/22.

A slower rate of growth or population decline would result in less demand for services and facilities than Council has anticipated. This could mean that some of the planned upgrade and/or introduction of assets (above schemes) may be able to be delayed and this could result in a reduction in Council's projected expenditure, which could have flow on effects for rates. It could also mean that the costs of undertaking projects or providing services (e.g. swimming pools) would need to be spread across fewer ratepayers.

#### Scenario 2 Faster population growth

If growth occurs twice as fast than assumed, the following growth programmes will be completed (some of these schemes will also be brought forward):

- Levin Growth Areas Wastewater;
- Levin Growth Areas Water Supply;
- Ōhau Water Supply and Wastewater;
- Manakau Water Supply and Wastewater;
- Waikawa Beach Water Supply and Wastewater;
- Waitarere Beach Water Supply; and
- Hōkio Beach Water Supply and Wastewater.

The financial implications of moving forward and completing the above projects over the next 20 years are as follows:

|                    | 2018/19          | 2019/20  | 2020/21  | 2021/22  | 2022/23  |
|--------------------|------------------|----------|----------|----------|----------|
| Rates income per   | centage increase | es       |          |          |          |
| Projected          | 6.53%            | 5.97%    | 5.40%    | 6.42%    | 4.92%    |
| Faster Growth      | 6.53%            | 5.98%    | 5.40%    | 6.15%    | 4.94%    |
| Total rates income | <b>\$000</b>     |          |          |          |          |
| Projected          | \$37,449         | \$39,683 | \$41,826 | \$44,512 | \$46,703 |
| Faster Growth      | \$37,449         | \$39,690 | \$41,832 | \$44,406 | \$46,599 |
| Effect on net debt |                  | Ψου,σου  | Ψ+1,002  | Ψ+1,100  |          |

|  | Projected  | \$82m  | \$93m   | \$100m   | \$107m   | \$105m  |
|--|--|--|---|--|--|---|
|  | Faster Growth  | \$82m  | \$93m   | \$100m   | \$108m   | \$107m  |
|  | *An increase in dep  | oreciation funding   | reduces debt over tim   | ne   |  |   |
|  | Risk: Rate   | es income will ex  | xceed Council's prop  |  | limits for: 2024/25 b  | by \$79k; 2025/26 by \$290k<br>2031/32 by \$1,255k.       |
|  | <ul> <li>Rates increase</li> <li>Risk: Rates increases will exceed Council's proposed rate increase limits for 2027/28 by 0.88%.</li> <li>Debt limits</li> <li>With multiple large programmes of work taking place over year 4–13, the expected debt is higher over the years (breaching 2028/29 by \$119k).</li> <li>The highest debt level will be in 2028/29 at 195%.</li> </ul> A faster rate of growth would increase demand for services and facilities and could mean that they may need regand/or introducing earlier than anticipated. For some services or facilities, such as swimming pools, a higher level population growth could result in an increase in the number of people using those services or facilities and there |  |   |  |  |   |
|  | A faster rate of gr<br>and/or introducing<br>population growth   | rowth would incr<br>g earlier than an<br>n could result in   | rease demand for se<br>nticipated. For some   | ervices and facilities<br>services or facilities<br>umber of people usi  | , such as swimming   | pools, a higher level in                                  |
| Data Source  | A faster rate of gr<br>and/or introducing<br>population growth<br>Council would col  | rowth would incr<br>g earlier than an<br>n could result in<br>llect a higher an  | rease demand for se<br>nticipated. For some<br>an increase in the n   | ervices and facilities<br>services or facilities<br>umber of people usind<br>and charges.  | , such as swimming   | pools, a higher level in                                  |
|  | A faster rate of gr<br>and/or introducing<br>population growth<br>Council would col  | rowth would incr<br>g earlier than an<br>n could result in<br>llect a higher an  | rease demand for senticipated. For some an increase in the nount of user fees an  | ervices and facilities<br>services or facilities<br>umber of people usind<br>and charges.  | , such as swimming   | pools, a higher level in                                  |
| Demographics   | A faster rate of gr<br>and/or introducing<br>population growth<br>Council would col<br>Sense Partners -  | rowth would incr<br>g earlier than an<br>n could result in<br>llect a higher an<br>Socio-economic  | rease demand for se<br>nticipated. For some<br>an increase in the n<br>nount of user fees an<br>c Projections 27 July   | ervices and facilities a<br>services or facilities<br>umber of people usind<br>and charges.  | , such as swimming<br>ng those services o  | pools, a higher level in                                  |
| Data Source Demographics Assumption Detailed Forecasts | A faster rate of grand/or introducing population growth Council would col  Sense Partners -  It is assumed most By 2038; 16.5% of 30.2% will be age Socio-economic publications.   | rowth would incred earlier than and could result in lect a higher and Socio-economic st of the growth of the population ed between 40-60 projections compern Corridor projection projection projection compern Corridor projection compern Corridor projections compern Corridor proj | rease demand for senticipated. For some an increase in the nount of user fees and Projections 27 July in Horowhenua Dister will be aged between 34 years old; and 28 pleted by Sense Parject will have on pop | ervices and facilities a services or facilities umber of people usind charges.  7 2017  Trict's population will en 0-14 years old; 25% will be aged 65 years factor in the effective services. | occur in the 40 to 6 5.2% will be aged bears old or over. fect the New Zealar demographics are I | g pools, a higher level in<br>or facilities and therefore |

|                         | Age  | 16/17  | 17/18                     | 18/19  | 19/20   | 20/21  | 21/22  | 22/23   | 23/24   | 24/25  | 25/26  | 26/27   |
|-------------------------|--|--|---------------------------|--|---|--|--|---|---|--|--|---|
|                         | 0-14<br>years  | 5,910  | 5,866                     | 5,836  | 5,820   | 5,817  | 5,823  | 5,840   | 5,870   | 5,904  | 5,948  | 6,023   |
|                         | 15-39<br>years   | 7,913  | 8,207                     | 8,488  | 8,763   | 9,006  | 9,207  | 9,392   | 9,571   | 9,707  | 9,850  | 9,977   |
|                         | 40-64<br>years   | 10,542   | 10,600                    | 10,649   | 10,689  | 10,735   | 10,755   | 10,784  | 10,820  | 10,841   | 10,856   | 10,887  |
|                         | 65<br>years +  | 8,018  | 8,122                     | 8,220  | 8,351   | 8,488  | 8,655  | 8,832   | 9,013   | 9,215  | 9,430  | 9,646   |
|                         | The belov  | v table sh   | ows the fo                |  | ige demog   | raphics o  | er the las   | t 10 years  | of the LTF  | ⊃.   |  |   |
|                         |  | Yr 10  | Yr 11                     | Yr 12  | Yr 13   | Yr 14  | Yr 15  | Yr 16   | Yr 17   | Yr 18  | Yr 19  | Yr 20   |
|                         | <b>Age</b> 0-14  | 27/28  | 28/29                     | 29/30  | 30/31   | 31/32  | 32/33  | 33/34   | 34/35   | 35/36  | 36/37  | 37/38   |
|                         | years  | 6,099  | 6,183                     | 6,271  | 6,354   | 6,447  | 6,542  | 6,622   | 6,685   | 6,733  | 6,768  | 6,806   |
|                         | 15-39<br>years   | 10,068   | 10,147                    | 10,211   | 10,257  | 10,265   | 10,221   | 10,252  | 10,257  | 10,311   | 10,350   | 10,381  |
|                         | 40-64<br>years   | 10,931   | 11,003                    | 11,104   | 11,234  | 11,427   | 11,590   | 11,739  | 11,896  | 12,042   | 12,207   | 12,241  |
|                         | 65<br>years +  | 9,853  | 10,053                    | 10,237   | 10,425  | 10,587   | 10,758   | 10,923  | 11,091  | 11,263   | 11,412   | 11,543  |
| Risk                    |  | •  | or differen<br>range of 4 |  | •   | •  |  |   | •   |  |  | of an   |
| Level of<br>Uncertainty | 2018 to 2  | 020/21 – ľ   | Moderate;                 | 2021/22 to   | 2027/28   | – Moderat  | te to High;  | and 2028  | /29 to 203  | 88 – High.   |  |   |
| Financial impact        | olds to 40 groups ar to have so Council no Council's If there we services to pool) which | year olds be likely to mall house eeding to level of both as a great hat are tall to be would read to be well as the would read to be would read to be well as the well as the would read to be well as the w | eholds con<br>replace or  | could placer househorsisting of a upgrade a e in the old re specific Council was | ce more do<br>olds (i.e. po<br>one or two<br>assets fast<br>der ranges<br>ally to the | emand on<br>arents with<br>people. A<br>ter than an<br>than antion<br>needs of a | Council's a children) a higher level ticipated a cipated the an ageing | infrastruct whereas   vel of dem and this ma en this cou population | ure. This in the people in the and on inflay mean and increas the feet. | s because<br>the older a<br>frastructure<br>an increase<br>e pressure<br>provision o | e the young<br>age ranges<br>e could rese<br>e in rates of<br>e for facility<br>of a hydro | ger age s are likely sult in or in les or therapy |
| Data Source             |  |  | ocio-econo                |  | ctions 27   | July 2017  |  |   |   |  |  |   |
|                         |  |  |                           |  |   | -  |  |   |   |  |  |   |

#### **Household Growth Assumption** An increase of 4,902 dwellings is assumed for over the 20 year period of this LTP. The majority of this growth is anticipated to occur in the residential areas. Of the urban settlements, the Levin residential area would have the highest growth. Detailed Socio-economic projections completed by Sense Partners factor in the effect the New Zealand Transport Agency's Wellington Northern Corridor project will have on household population growth. The growth rates are based on 50<sup>th</sup> **Forecasts** percentile projections. Number of Dwellings Census 2013 -Total number of dwellings = 15,099 (12,633 Occupied, 2,415 Unoccupied and 51 Under Construction) New Dwellings and Relocated Dwellings constructed in Horowhenua since the Census 2013: 2013/14 = 108 2014/15 = 1082015/16 = 1932016/17 = 2362017/18 = 240 (forecast) Therefore the forecasted total number of dwellings in the District at 30 June 2018 is 15,984. Dwelling Occupancy It is assumed that the Dwelling Occupancy Rate for the District will be 85%. The Sense Partners projections have been used to inform the projected number of occupied dwellings. A 15% allowance has been added to provide for the unoccupied dwellings. The 2013 Census identified a dwelling occupancy of 84% for Horowhenua. The slight increase in occupancy is recognising those that have built dwellings here in the District as holiday or weekend homes over the last 10 years are now moving here to reside in them permanently as they retire. The below table shows the forecasted number of households for the life of this LTP. Last This Yr 1 Yr 2 Yr 3 Yr 4 Yr 5 Yr 6 **Yr 7** Yr 8 Yr9 Year Year 16/17 17/18 18/19 19/20 20/21 21/22 22/23 23/24 24/25 25/26 26/27

17,038

Yr 15

16,786

Yr 14

17,289

Yr 16

17,547

Yr 17

17,807

Yr 18

15,984

Yr 11

16,181

Yr 12

16,492

Yr 13

15,744

Yr 10

18,324

Yr 20

18,035

Yr 19

| 27/28  | 28/29  | 29/30  | 30/31  | 31/32  | 32/33  | 33/34  | 34/35  | 35/36  | 36/37  | 37/38  |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 18,578 | 18,816 | 19,084 | 19,340 | 19,584 | 19,785 | 20,032 | 20,215 | 20,445 | 20,671 | 20,886 |

In 2038 it is forecast there will be 17,753 occupied dwellings and 3,133 unoccupied dwellings.

#### Where will the growth occur?

This growth will result in an average of 244 additional dwellings (new dwellings and relocated dwellings) per year. The below table shows the forecasted number of dwellings by type and area per year.

|              | Residential | Greenbelt | Rural |
|--------------|-------------|-----------|-------|
| Levin        | 61          | 13        | n/a   |
| Foxton Beach | 26          | 2         | n/a   |
| Foxton       | 6           | 0         | n/a   |
| Waitārere    | 8           | 8         | n/a   |
| Ōhau         | 7           | 8         | n/a   |
| Waikawa      | 1           | 2         | n/a   |
| Manakau      | 1           | 4         | n/a   |
| Shannon      | 1           | 0         | n/a   |
| Tokomaru     | 2           | 2         | n/a   |
| Hōkio Beach  | 1           | 0         | n/a   |
| Rural        | n/a         | n/a       | 90    |
| Total        | 115         | 39        | 90    |

# The future growth in the number of dwellings and the location of the new dwellings varies substantially (much higher/lower). Level of Uncertainty A lower level of growth in the number of households would result in less income from rates than predicted. This would have a flow on effect of either increasing the cost of rates per ratepayer for the delivery of services, or Council would need to fund some services and/or planned projects through loans, or it would need to cut back on some planned projects and/or possibly consider reducing Levels of Service.

|                         | A higher level of growth would increase demand for services and could mean that services need replacing or upgrading earlier than anticipated, however, Council would have a larger rate base to collect rates from to fund the replacement/upgrade of services. Higher than anticipated growth in one part of the District could require upgrading and renewal projects to be prioritised over other parts of the District. |
|-------------------------|--|
| Data Source             | Sense Partners - Socio-economic Projections 27 July 2017 Census 2013 – Statistics Horowhenua District Council  |
| Household Occup         | pancy  |
| Assumption              | The average number of occupants per dwelling will be 2.3 over the life of the LTP.   |
| Detailed<br>Forecasts   | Socio-economic projections completed by Sense Partners factor in the effect the Wellington Northern Corridor Expressway project will have on household population growth. Figures are based on 50 <sup>th</sup> percentile projections.  Average number of occupants:  There were an average number of 2.3 people per house in the Horowhenua District in 2013 (Census 2013). It is  |
|                         | assumed the average number of occupants will stay at this rate (2.3) on average over the life of this LTP.  By 2038: 17,753 (occupied households) x 2.317 (people per house) = 41,134 Note: this is six more people than the assumed population which is 41,128 in 2038. This is due to rounding the figure for average people per house. Overall we assume the population will be 41,128.                                   |
| Risk                    | That the future growth of the average number of occupants varies substantially (much higher or lower) than the assumed rates.  |
| Level of<br>Uncertainty | Low to Moderate  |
| Financial impact        | A lower average number of occupants per dwelling could result in there being a reduction in the demand for services and facilities. This could mean that some of the planned upgrade or replacement of assets may be able to be delayed and this could result in a reduction in rates or Council borrowing.  |
|                         | A higher average number of occupants per dwelling would result in an increase in demand for services and could mean that services may need replacing or upgrading earlier than anticipated. Council may have to increase rates or borrowing more than assumed to fund the replacement and/or upgrade of these services and facilities.   |
| Data Source             | Sense Partners - Socio-economic Projections 27 July 2017 Census 2013 - Statistics New Zealand  |

| Assumption              | Changes in legislation will not result in a significant effect on Council's finances or Levels of Service.  |
|-------------------------|---|
| Detailed<br>Forecasts   | Key areas that could potentially be affected by changes in legislation are in the regulatory and compliance areas of Council such as Building Consent, Resource Consents and Enforcement. Further changes to legislation around fresh water may also be likely in the future and would have implications for Council in terms of its Water Supply, Wastewater and Stormwater Activities.  |
|                         | Possible future changes to legislation could result in Council having to increase or decrease its Levels of Service. Council Officers will closely monitor future changes to legislation.   |
|                         | Recent changes to legislation, including the Building (Earthquake-prone Buildings) Amendment Act 2016 and Resource Legislation Amendment Act 2017, have had implications for Council and require implementation in the short term. The implications of the Building (Earthquake-prone Buildings) Amendment Act 2016 have been described in a separate assumption. The implications from the Resource Legislation Amendment Act 2017 could include reviewing the Operative District Plan to reflect the new National Plan Standards (currently under development by the Ministry for the Environment). |
| Risk                    | Whilst we have a good understanding of the implications that the recent amendments to legislation are likely to have for Council in the near future, there is uncertainty about what amendments might be made in the future. This LTP covers a period of 20 years and with this comes less certainty as there could be changes in government or other contributing factors that result in amendments being made to legislation.   |
|                         | Such amendments could require Council to implement legislative changes to its plans, bylaws, regulatory processes and/or infrastructure requirements. There is uncertainty around the likely cost implications and timing to undertake such changes although there is high expectation that the implementation requirements would fall within the 20 year life of this LTP.   |
| Level of<br>Uncertainty | 2018 to 2020/21 – Low; 2021/22 to 2027/28 – Moderate; and 2028/29 to 2038 – High.   |
| Financial impact        | Changes in legislation may result in a requirement to increase Levels of Service, implement policy, and regulatory changes which may not have been foreseen or accurately budgeted for. Some changes could require additional funding from rates or an increase in fees and charges to implement the legislative changes as directed and within the required timeframes.  |
| Data Source             | Horowhenua District Council   |

#### **Assumption**

It is assumed that climate change will occur in line with the atmospheric projections based on simulations undertaken for the International Panel on Climate Change's (IPCC) 5<sup>th</sup> Assessment. Climate change will affect the Horowhenua District in a range of ways, including by an increase in temperature, change in annual precipitation patterns and rising sea levels.

# Detailed Forecasts

The National Institute of Water and Atmospheric Research (NIWA) has predicted the following changes in temperature, precipitation (rainfall) and sea level rise using the Intergovernmental Panel on Climate Change (IPCC)'s 5<sup>th</sup> Assessment:

- **Temperatures** in the Manawatu-Whanganui Region could increase by an annual mean of between 0.7°C (RCP 2.6) and 1.1°C (RCP 8.5) at 2040 (2031-2050 average);
- Projected changes in annual **precipitation** between 1986-2005 and 2031-2050 for Foxton, Levin, Shannon and the Tararua Ranges is between 1% (RCP 2.6) and 2% (RCP 8.5). Projected changes in precipitation vary seasonally (and between RCPs 2.6 and 8.5, and between Levin, Foxton and Shannon) with slight decreases projected for summer (-1% to 0%), autumn (1% to 0%) and spring (1% to 0%), and an increase projected for winter (4% to 7%). Projected changes in precipitation vary seasonally (and between RCPs 2.6 and 8.5) for the Tararua Ranges with slight decreases projected for summer (-1% to 0%), autumn (2% to 1%) and spring (1% and 1%), and an increase projected for winter (3% to 6%).

The RCP values are the lowest and highest scenario Representative Concentration Pathways from IPCC's 5<sup>th</sup> Assessment. These scenarios have been further developed for New Zealand to cover a range of possible **sea level rise** futures:

- a low to eventual net-zero emission scenario (RCP2.6),
- an intermediate-low scenario based on the RCP4.5 median projections,
- a scenario with continuing high emissions, based on the RCP8.5 median projections, or
- a higher H+ scenario, taking into account possible instabilities in polar ice sheets, based on the RCP8.5 (83rd percentile) projections.

Ministry for the Environment's (MfE) Guidance Manual on Coastal Hazards and Climate Change recommends the use of 'adaptive pathways' to plan for adapting to sea level rise rather a reliance on a single value. Users are advised to use the four sea level rise scenarios above.

Increments for projections of sea-level rise (metres above 1986–2005 baseline) for New Zealand using these scenarios are:

| Year | RCP 2.6 (metres) | RCP 4.5 (metres) | RCP 8.5 (metres) | RCP 8.5 H+ (metres) |
|------|------------------|------------------|------------------|---------------------|
| 2020 | 0.08             | 0.08             | 0.09             | 0.11                |

|                         |   |  |                | 1                | 1               |  |  |  |  |
|-------------------------|---|--|----------------|------------------|-----------------|--|--|--|--|
|                         | 2030  | 0.13   | 0.13           | 0.15             | 0.18            |  |  |  |  |
|                         | 2040  | 0.18   | 0.19           | 0.21             | 0.27            |  |  |  |  |
|                         | 2050  | 0.23   | 0.24           | 0.28             | 0.37            |  |  |  |  |
| Risk                    | Climate change occurs at a different rate to what has been projected with greater or lesser implications for the Manawatu-Whanganui Region and the Horowhenua District.   |  |                |                  |                 |  |  |  |  |
| Level of<br>Uncertainty | Low to Moderate   |  |                |                  |                 |  |  |  |  |
| Financial impact        | could place strain<br>be sufficient in th<br>pressure on Cou  | If climate change results in changes that are more significant or which occur sooner than currently projected then this could place strain on some of Council's core infrastructure, e.g. less rain may mean that some water supplies may not be sufficient in the driest months of the year or if there is an increase in heavy rainfalls then this could place additional pressure on Council's stormwater system. If infrastructure needs to be upgraded then this may result in unbudgeted expenditure which could result in an increase in borrowing, the use of Council reserves, or an increase in rates. |                |                  |                 |  |  |  |  |
| Data Source             | MfE – 'Coastal H<br>NIWA – 'Climate   |  | •              |                  |                 | overnment in New Zealand.' (July 2008)   |  |  |  |
| Natural Hazards         | – Response and I  | Recovery   |                |                  |                 |  |  |  |  |
| Assumption              | It is assumed that hazard events sh   |  |                | •                |                 | to respond to, and recover from, natural   |  |  |  |
| Detailed<br>Forecasts   | erosion, extreme  | wind events, a   | and inundation | (e.g. storm surg | es and tsunami) | flooding and river erosion, coastal , land instability (e.g. slips, slumps and canic activity. |  |  |  |
|                         | runoff), seismic activity (e.g. ground rupture, shaking and liquefaction) and volcanic activity.  Council must have the capacity to borrow funds to respond to a natural hazard event quickly and to be able to provide necessary relief. Council received an A+ credit rating from Standard and Poors in May 2017. This enables Council's current debt limit, which is set by the Local Government Funding Agency (LGFA), to increase from 175% of our operating income to 250%. The 250% limit provides Council with an adequate buffer to respond and recover from natural hazard events if necessary. |  |                |                  |                 |  |  |  |  |
| Risk                    | Some natural haz  |  | •              |                  |                 | District. However, there is a relatively high  |  |  |  |
|                         |   |  |                |                  |                 | d that cost of recovering from the damage o stay within its current debt limit.                |  |  |  |

| Level of<br>Uncertainty | Low to Moderate   |
|-------------------------|---|
| Financial impact        | If Council required more funds to recover from a natural hazard event then what would be available to Council if it was to stay within its current debt limit, then Council would have to borrow funds at a higher interest rate. This could potentially result in Council having to increase rates to cover the loans.   |
|                         | It is noted that the New Zealand Transport Agency (NZTA) provides funding for emergency works required to be done on roads as a result of damage caused by qualifying (natural hazard) events. The NZTA provides assistance at Council's normal Funding Assistance Rate (FAR) for cumulative claims for the costs of emergency works up to 10% of Council's approved maintenance programme for the year. For the portion of cumulative claims of the total costs of emergency works that exceed 10% of Council's approved maintenance programme for the year, the NZTA will provide funding at the normal FAR plus an additional 20%. |
|                         | An increase in the frequency of natural hazards that has occurred in recent history, as well as the severity of these natural hazard events (most notably the Christchurch Earthquake 2011), has resulted in an increase in the cost of insurance.  |
| Data Source             | Horowhenua District Council   |
|                         | New Zealand Transport Agency  |
| Sources of Funds        | for Replacement of Significant Assets   |
| Assumption              | It is assumed that funding for the replacement of significant assets will be in accordance with Council's Revenue and Financing Policy, and Financial and Infrastructure Strategies.  |
| Detailed<br>Forecasts   | Funding sources used to finance capital expenditure (i.e. replacement of significant assets) are as per the Revenue and Financing Policy (in order of hierarchy):   |
|                         | <ol> <li>Third party sources: These are sources that relieve the burden on ratepayers generally. These are not commonly available, but include any government subsidies for water and wastewater schemes and third party donations.</li> </ol>  |
|                         | 2. Rates: This reflects a prudent propensity on Council's part to ensure that special purpose reserves are only utilised on a selective basis on relatively significant works in the context of long term planning, rather than on minor works over a shorter term, and a prudent reluctance to increase loan indebtedness unless necessary.  |
|                         | <b>3. Reserves:</b> In particular, funds that may be held for larger capital works in specific activities. An example includes water, wastewater, roading and property works financed from the Foxton Beach Freeholding Fund.   |
|                         | 4. Borrowing: This reflects a prudent reluctance to increase loan indebtedness unless necessary. Although it is the last option considered, the LTP provides for substantial new borrowing to achieve an element of   |

|                         | in   | tergeneratio   | nal equity ir | the financi  | ng of a rang | e of major o  | apital exper  | nditure work | S.           |                                  |
|-------------------------|--|--|---------------|--------------|--------------|---------------|---------------|--------------|--------------|----------------------------------|
|                         | Note: loan funding is also used for infrastructural asset renewals where the rate generated reserves are inaded due to the level of renewals in any one year.  |  |               |              |              | s are inadequ |               |              |              |                                  |
| Risk                    | That there   | That there are insufficient funds available for the replacement of significant assets. |               |              |              |               |               |              |              |                                  |
| Level of<br>Uncertainty | Low  |  |               |              |              |               |               |              |              |                                  |
| Financial impact        | If the assumed funding sources were not available and a significant asset needed to be replaced then Council would either have to borrow funds and incur higher than usual interest on this loan or defer other planned works that are of lower priority and use the funds that were initially allocated to them to replace the significant asset. |  |               |              |              |               |               |              |              |                                  |
| Data Source             | Horowher   | nua District (   | Council – Re  | evenue and   | Financing F  | Policy        |               |              |              |                                  |
| Interest Costs          |  |  |               |              |              |               |               |              |              |                                  |
| Assumption              | Council is assuming for the 20 year period of this LTP that the interest rate for new borrowing will be between 4.75% and 6.00%  |  |               |              |              |               |               |              |              |                                  |
| Detailed                | The table below identifies the assumed interest costs over the 20 year life of this LTP.   |  |               |              |              |               |               |              |              |                                  |
| Forecasts               | 2019   | 2020   | 2021          | 2022         | 2023         | 2024          | 2025          | 2026         | 2027         | 2028                             |
|                         | 4.75%  | 4.75%  | 4.75%         | 5.00%        | 5.00%        | 5.00%         | 5.00%         | 5.25%        | 5.25%        | 5.75%                            |
|                         | 2029   | 2030   | 2031          | 2032         | 2033         | 2034          | 2035          | 2036         | 2037         | 2038                             |
|                         | 5.75%  | 5.75%  | 5.75%         | 6.00%        | 6.00%        | 6.00%         | 6.00%         | 6.00%        | 6.00%        | 6.00%                            |
| Risk                    | 6.00% is   |  | o be a cons   | ervative pro | jection. The | lower inter   | est rates pro | jected for y | ears 1 and 2 | ever, 4.75% t<br>2 of this LTP a |
| Level of<br>Uncertainty | 2018 to 2  | 020/21 – Mo  | oderate; 202  | 21/22 to 202 | 7/28 – Mode  | erate to Hig  | n; and 2028   | /29 to 2038  | – High.      |                                  |

## **Financial impact**

As the assumption on interest costs is fundamental to the information underlying the LTP, the below scenarios have been provided. The scenarios outline the financial implications if the interest costs occur higher or lower than anticipated. Each scenario is modelled independently and is compared to the baseline figures from the Financial Strategy.

#### Scenario 1 Increase in interest costs (1% higher than assumed)

|                                   | 2018/19  | 2019/20  | 2020/21  | 2021/22  | 2022/23  | 2023/24 and following years |
|-----------------------------------|----------|----------|----------|----------|----------|-----------------------------|
| Rates income percentage increases |          |          |          |          |          |                             |
| Projected                         | 6.53%    | 5.97%    | 5.40%    | 6.42%    | 4.92%    | Range 2.10% to 4.47%        |
| 1% Increase in interest rates     | 9.06%    | 5.96%    | 5.54%    | 6.43%    | 4.95%    | Range 2.00% to 4.41%        |
| Total rates income (\$0           | 00)      |          |          |          |          |                             |
| Projected                         | \$37,449 | \$39,683 | \$41,826 | \$44,512 | \$46,703 | From \$48,064 to \$74,139   |
| 1% Increase in interest rates     | \$38,338 | \$40,622 | \$42,874 | \$45,630 | \$47,890 | From \$49,227 to \$75,866   |

Higher interest rates will have an impact on Council's interest expense and consequently the affordability of services provided and the ability to afford capital improvements which are funded from borrowing.

#### Scenario 2 Reduction in interest costs (1% lower than assumed)

|                                   | 2018/19  | 2019/20  | 2020/21  | 2021/22  | 2022/23  | 2023/24 and following years |
|-----------------------------------|----------|----------|----------|----------|----------|-----------------------------|
| Rates income percentage increases |          |          |          |          |          |                             |
| Projected                         | 6.53%    | 5.97%    | 5.40%    | 6.42%    | 4.92%    | Range 2.10% to 4.47%        |
| 1% Reduction in interest rates    | 4.00%    | 5.97%    | 5.25%    | 6.42%    | 4.86%    | Range 2.00% to 4.56%        |
| Total rates income (\$0           | 00)      |          |          |          |          |                             |
| Projected                         | \$37,449 | \$39,683 | \$41,826 | \$44,512 | \$46,703 | From \$48,064 to \$74,139   |
| 1% Reduction in interest rates    | \$36,561 | \$38,744 | \$40,780 | \$43,396 | \$45,507 | From \$46,880 to \$73,823   |

Lower interest rates would result in lower rates income increases and as such, improve the affordability of services and the ability to afford capital improvements.

| Data Source               | Horowhenua District Council   |
|---------------------------|---|
|                           | Bancorp Treasury Services Limited   |
| Depreciation              |   |
| Assumption                | Council is assuming that by 2026 depreciation funds will be adequate to fund asset renewal expenditure.   |
| Detailed<br>Forecasts     | Council has estimated future depreciation on the basis of recent asset valuations and planned capital expenditure, using straight line percentage calculations of depreciation as laid out in the Accounting Policies.  |
| Risk                      | The actual cost of renewals may be higher or lower than depreciation.   |
| Level of<br>Uncertainty   | Moderate  |
| Financial impact          | Underfunding of depreciation would result in increased borrowing requirements to fund asset renewals or potentially not undertaking some renewals as early as initially anticipated. Overfunding of depreciation would result in Council surpluses that could be used to reduce debt.   |
| Data Source               | Accounting Policies (found in Financial Statements) - Horowhenua District Council   |
| Local Governmen           | t Funding Agency  |
| Assumption                | That the Local Government Funding Agency (LGFA) remains in existence and is Council's preferred source of debt funding. Also that the deed guarantee obligations on default of any Council under the deed will not occur.   |
|                           | The LCCA is a Council Controlled Ownerication (CCO) that was notablished to raise daht on hability of lead outhorities  |
| Detailed<br>Forecasts     | The LGFA is a Council-Controlled Organisation (CCO) that was established to raise debt on behalf of local authorities on terms that are more favourable to them than if they raised the debt directly. Council is a shareholder of the LGFA and each of the shareholders are party to a deed of guarantee, whereby the parties to the deed guarantee have obligations to the LGFA in the event of default.  |
|                           | on terms that are more favourable to them than if they raised the debt directly. Council is a shareholder of the LGFA and each of the shareholders are party to a deed of guarantee, whereby the parties to the deed guarantee have obligations   |
| Forecasts                 | on terms that are more favourable to them than if they raised the debt directly. Council is a shareholder of the LGFA and each of the shareholders are party to a deed of guarantee, whereby the parties to the deed guarantee have obligations to the LGFA in the event of default.  The risk of a local authority borrower defaulting is extremely low and highly unlikely especially given that all of the   |
| Forecasts  Risk  Level of | on terms that are more favourable to them than if they raised the debt directly. Council is a shareholder of the LGFA and each of the shareholders are party to a deed of guarantee, whereby the parties to the deed guarantee have obligations to the LGFA in the event of default.  The risk of a local authority borrower defaulting is extremely low and highly unlikely especially given that all of the borrowings by a local authority from the LGFA are secured by rates. |

| Assumption              | Council is assuming that dividends will be zero (or immaterial) and that the rate of interest earned on all future investments for the life of this LTP will be between 3.5% and 4.5%.   |
|-------------------------|--|
| Detailed<br>Forecasts   | Most of Council's interest revenue is tagged to special funds and is not a direct supplement to rating revenue or offset against rates requirements. The proposed utilisation of these special funds does not rely unduly on accumulations of interest earnings. |
| Risk                    | The assumed rate is in the range of rates experienced in recent and current prevailing economic environments. There is potential for interest earned to be higher or lower than estimated.   |
| Level of<br>Uncertainty | Low to Moderate  |
| Financial impact        | Lower interest rates on Council's investments would lead to lower revenue. However, investment revenue is not significant and as such there would be only a minimal financial impact for Council if these rates were lower than anticipated.                     |
| Data Source             | Horowhenua District Council  |
|                         | Bancorp Treasury Services Limited  |
| Inflation               |  |
| Assumption              | Annual increases in inflation will be in accordance with the inflation adjusters that have been provided by Business and Economic Research Ltd (BERL) and endorsed for use by the Society of Local Government Managers (SOLGM).                                  |
|                         |  |

# Detailed Forecasts

The table below details the inflation adjustors that have been used for each category.

Adjustors: % per annum change

**Years 1-10** 

|             | Planning and regulation | Roading | Transport | Community activities | Water and Environmental |
|-------------|-------------------------|---------|-----------|----------------------|-------------------------|
| Year ending | % change (on year       | earlier |           |                      |                         |
| June 2020   | 2.1                     | 2.2     | 2.0       | 2.0                  | 2.5                     |
| June 2021   | 2.1                     | 2.2     | 2.1       | 2.1                  | 2.3                     |
| June 2022   | 2.1                     | 2.3     | 2.2       | 2.1                  | 2.4                     |
| June 2023   | 2.2                     | 2.4     | 2.2       | 2.2                  | 2.4                     |
| June 2024   | 2.3                     | 2.4     | 2.3       | 2.3                  | 2.5                     |
| June 2025   | 2.3                     | 2.5     | 2.4       | 2.3                  | 2.6                     |
| June 2026   | 2.4                     | 2.6     | 2.5       | 2.4                  | 2.6                     |
| June 2027   | 2.4                     | 2.7     | 2.5       | 2.4                  | 2.7                     |
| June 2028   | 2.5                     | 2.8     | 2.7       | 2.6                  | 2.8                     |

#### Years 11-20

|                  | Planning and regulation   | Roading | Transport | Community activities | Water and Environmental |
|------------------|---------------------------|---------|-----------|----------------------|-------------------------|
| Year ending      | % change (on year earlier |         |           |                      |                         |
| 20-year avge %pa | 2.3                       | 2.5     | 2.4       | 2.3                  | 2.6                     |

An average inflation has been given for the years 2029 to 2038.

#### Risk

Council uses standard BERL adjusters, however, these are predictions and future rates of inflation are subject to a large number of variables which are beyond Council's control and are difficult to forecast.

# Level of Uncertainty

2018 to 2020/21 – Low-Moderate, 2021/22 to 2027/28 – Moderate and 2028/29 to 2038 – High.

## Financial impact

As the assumption on inflation is fundamental to the information underlying the LTP, the below scenarios have been provided. The scenarios outline the financial implications if the inflation rate were to occur higher or lower than anticipated. Each scenario is modelled independently and is compared to the baseline figures from the Financial Strategy.

## Scenario 1 Increase in inflation (0.5% higher than assumed)

|                            | 2018/19                           | 2019/20  | 2020/21  | 2021/22  | 2022/23  |  |  |
|----------------------------|-----------------------------------|----------|----------|----------|----------|--|--|
| Rates income pero          | Rates income percentage increases |          |          |          |          |  |  |
| Projected                  | 6.53%                             | 5.97%    | 5.40%    | 6.42%    | 4.92%    |  |  |
| 0.5% Increase in inflation | 6.53%                             | 6.28%    | 5.83%    | 5.79%    | 5.32%    |  |  |
| Total rates income         | Total rates income \$000          |          |          |          |          |  |  |
| Projected                  | \$37,449                          | \$39,683 | \$41,826 | \$44,512 | \$46,703 |  |  |
| 0.5% Increase in inflation | \$37,449                          | \$39,801 | \$42,121 | \$44,981 | \$47,373 |  |  |
| Effect on net debt*        | Effect on net debt*               |          |          |          |          |  |  |
| Projected                  | \$82m                             | \$93m    | \$100m   | \$107m   | \$105m   |  |  |
| 0.5% Increase in inflation | \$82m                             | \$93m    | \$100m   | \$108m   | \$106m   |  |  |

<sup>\*</sup>An increase in depreciation funding reduces debt over time.

If inflation were to occur higher than what is anticipated we would experience higher rates income increases and subsequently total rates income. Net debt would also increase more than what has been projected.

#### Scenario 2 Reduction in inflation (0.5% lower than assumed)

|                             | 2018/19                           | 2019/20  | 2020/21  | 2021/22  | 2022/23  |  |
|-----------------------------|-----------------------------------|----------|----------|----------|----------|--|
| Rates income perc           | Rates income percentage increases |          |          |          |          |  |
| Projected                   | 6.53%                             | 5.97%    | 5.40%    | 6.42%    | 4.92%    |  |
| 0.5% Reduction in inflation | 6.53%                             | 5.65%    | 4.98%    | 6.05%    | 4.50%    |  |
| Total rates income          | Total rates income \$000          |          |          |          |          |  |
| Projected                   | \$37,449                          | \$39,683 | \$41,826 | \$44,512 | \$46,703 |  |
| 0.5% Reduction in inflation | \$37,449                          | \$39,683 | \$40,780 | \$43,396 | \$45,507 |  |
| Effect on net debt*         | Effect on net debt*               |          |          |          |          |  |
| Projected                   | \$82m                             | \$93m    | \$100m   | \$107m   | \$105m   |  |
| 0.5% Reduction in inflation | \$82m                             | \$92m    | \$100m   | \$107m   | \$105m   |  |

<sup>\*</sup>An increase in depreciation funding reduces debt over time.

|                         | A lower inflation rate would mean lower rates income increase and total rates income. The difference in net debt wouldn't be significant with the only variance occurring in 2019/20.  |
|-------------------------|--|
| Data Source             | The inflation adjusters have been provided by BERL and have been endorsed for use by the SOLGM.  |
| Property                |  |
| Assumption              | Council assumes it will dispose of \$7 million of non-core property over the first two years of the LTP. Non-core is identified as properties contributing to non-traditional Council services (e.g. commercial buildings and residential housing).  |
|                         | Council assumes that the above includes non-core community property (Halls), and that seismic strengthening of Community Halls will not be undertaken.   |
|                         | Beyond year two, Council assumes that further non-core property will be programmed for disposal following a complete evaluation of all Council property assets in line with Council's Property Strategy. This evaluation will consider all property assets including infrastructure, community facilities, land, buildings, and reserves.      |
|                         | This disposal programme will be indicatively phased across the subsequent nine years of the LTP with a view to Council owning and maintaining only core property by 2028.  |
| Detailed<br>Forecasts   | Following the Property Strategy evaluation, Council has identified \$5.3 million (capital value) of commercial property and \$1.7 million of general property as non-core and consequently available for disposal. Council aims to achieve a purchase price of approximately \$7 million for the commercial and residential property it sells. |
|                         | The majority of community buildings identified for potential disposal are earthquake prone. Should Council sell these buildings, it would aim to achieve the best price possible and dispense with the financial liability associated with earthquake strengthening of the portfolio.  |
| Risk                    | Council disposes of more or less property than assumed above, or fails to achieve the appropriate sale prices, resulting in debt levels that are higher or lower than forecast. The likelihood of these risks occurring is considered unlikely*.   |
| Level of<br>Uncertainty | Moderate   |
| Financial impact        | If Council disposes of less property than forecast, or if it does not receive the expected income from sales, then debt and interest will be higher than forecast, and Council may need to rely on other funding sources to progress Council priorities that may otherwise have been funded through income generated by property sales.        |
|                         | If Council disposes of more property than forecast, or if it receives higher income from sales than expected, then debt and interest will be lower than forecast, and Council may have greater capacity to progress Council priorities that may otherwise have been funded through debt funding or other sources.                              |

|                               | If Council does not dispose of its Community Halls, then it will need to borrow additional money to complete seismic strengthening. |   |                             |   |  |  |  |
|-------------------------------|---|---|-----------------------------|---|--|--|--|
| Data Source                   | Horowhenua Dis  | strict Council  |                             |   |  |  |  |
| NZTA subsidy (F               | unding Assistance   | e Rates)  |                             |   |  |  |  |
| Assumption                    | Transport Agenc   | It is assumed that the roading subsidies (Funding Assistance Rates) that Council receives from the New Zealand Transport Agency (NZTA) will increase from 54% in 2018/19 to 59% by the end of the transition in 2023/24. From 2023/24 they will remain 59% for the life of the LTP. |                             |   |  |  |  |
| Detailed<br>Forecasts         | Activities. Currently Counci  | il receives a subsidy of 52%  | from the NZTA. As advise    | ertake its Land Transport (Roads and Footpathed by the NZTA, and in accordance with its 2016 crease by 2% to 54% in 2018/19. It will then w:      |  |  |  |
|                               | Normal Funding Assistance Rates for Horowhenua District Council for the 2018-21 NLTP  |   |                             |   |  |  |  |
|                               | 2018/19   | 2019/20   | 2020/21                     | End of transition 2023/24   |  |  |  |
|                               | 54%   | 55%   | 56%                         | 59%   |  |  |  |
|                               |   | For the first three years of this LTP there are no significant changes expected to the size of the roading network. As part of the next review of the LTP any anticipated changes will be factored in.  |                             |   |  |  |  |
| Risk                          | approve as much   | Subsidies for roading are calculated annually so it is possible that in the later years of the LTP that the NZTA may not approve as much of a subsidy as Council requests or there may be a variation in the criteria for inclusion in the subsidised works programme.              |                             |   |  |  |  |
| Level of<br>Uncertainty       | 2018 to 2021 – L  | _ow; 2021/22 to 2028 – Mode   | erate; and 2028/29 to 203   | 8 – High.   |  |  |  |
|                               |   |   |                             |   |  |  |  |
| Financial impact              | available for non   | -subsidised road works whic   | h would result in an increa | Council will have to either increase the funds ase in rates or an increase in borrowing to what ace the amount of road works that it had intended |  |  |  |
| Financial impact  Data Source | available for non Council has initia  | -subsidised road works whic   | h would result in an increa | ase in rates or an increase in borrowing to what  |  |  |  |

| Asset Manageme          | ent Plans  |
|-------------------------|--|
| Assumption              | Council assumes the underlying data for Council's Water, Wastewater, Stormwater, Land Transport (Roads and Footpaths), Solid Waste, and Parks and Property Asset Management Plans are up to date and reliable. Asset data is being updated on a regular basis with the assistance from Operations Team and the maintenance contractors.  |
| Detailed<br>Forecasts   | Forecasts for Capital and Operational expenditure in Wastewater, Water, Stormwater and Roading Activities are based on the information in the Asset Management Plans and summarised in the Infrastructure Strategy as only core Council activities are part of this strategy.  Forecasts for Capital and Operational expenditure in Property, Parks, and Solid Waste Activities are also based on the information in the Asset Management Plans but these are not part of the Infrastructure Strategy.   |
| Risk                    | Council has used the best available information in projecting future expenditure towards capital works. Activity Managers will perform due diligence while finalising/identifying assets for renewals by performing condition assessments, assess asset performance and also considering the risk of asset failure.  The Asset Management Plans are based on the best information currently available to Council. However, Council's information on the condition of its underground assets is continually improving and as this information improves Council will have a better understanding of what assets require renewal and replacement and by when.  The Property and Solid Waste Activities have a fair degree of certainty but are subject to impending decisions on future of ownership, management and operation. |
| Level of<br>Uncertainty | Moderate   |
| Financial impact        | More certainty on the condition of underground assets may result in changes to planned replacement programmes and changes to funding requirements.   |
| Data Source             | Water, Wastewater, Stormwater data is from IPS/Geographical Information System (GIS) based registers (Horowhenua District Council).  Roading data and some Stormwater data are from the Road Assessment and Maintenance Management (RAMM) system (Horowhenua District Council).  Solid Waste, Parks and Property data is in spreadsheet registers and in SPM Assets (Horowhenua District Council).   |
| Asset Revaluatio        | ns   |
| Assumption              | Council is assuming that the impact of the periodic revaluation of assets will be in line with the assumed rates of inflation relevant to local government goods and services and cost fluctuations relevant to each infrastructure sector. Council is also assuming that the expected useful lives of significant assets will remain the same.  |
| Detailed                | Asset revaluations take place every year with the last revaluation occurring as of 01 July 2016. This is done in   |

| Forecasts               | accordance with the accounting standards applicable to each class of asset and is shown in the financials as an annual adjustment to asset values and equity equivalent to the inflation rate applied to the opening asset values. Infrastructure asset valuations are based on Council's own recent contract prices where relevant work has been undertaken, otherwise inflation adjustments have been made to reflect regional cost changes, or construction cost indices applicable to each activity. |  |
|-------------------------|--|--|
| Risk                    | Asset valuations could be higher or lower than assumed. Key impacts on the valuation of infrastructure assets are oil prices and regional economic activity within each relevant sector.   |  |
| Level of<br>Uncertainty | Moderate   |  |
| Financial impact        | Increases in valuations would require a higher level of depreciation funding as the cost of renewals would increase and this would impact on other Council spending or would require Council to increase rates. A change in asset valuation would also impact on the long term renewals and capital addition expenditure projections.  |  |
|                         | Decreases in valuations would require less in depreciation funding as cost of renewals would decrease and this would have a flow on effect for rates.  |  |
| Data Source             | Horowhenua District Council  |  |
| Useful Lives of As      | esets  |  |
| Assumption              | Asset lives are based on the National Asset Management Steering Group "Valuation and Depreciation Guidelines" 2002 and have been used in Council's Asset Management Plans and Asset Valuation report as of 01 July 2016. As such, it is assumed that assets will last as long as estimated in Council's Asset Management Plans and Infrastructure Strategy which is reflected in the Accounting Policies. There is not enough evidence collected to change/extend the asset useful lives.                |  |
| Detailed<br>Forecasts   | The useful lives of assets adopted are industry best practices and Activity Managers perform condition assessment on critical assets before assets are identified for renewals.  |  |
| Risk                    | Council has estimated the useful lives of its assets on the best information available to it currently. As Council's information improves over time, these estimates will become more certain. There is a risk that assets could deteriorate at a faster or slower rate than anticipated and this would mean they may need to be replaced earlier or later than currently forecast.  |  |
| Level of<br>Uncertainty | Moderate   |  |

| Financial impact        | Unanticipated asset deterioration may result in unbudgeted expenditure which could result in an increase in borrowing, use of Council reserves, or an increase in rates.   |
|-------------------------|--|
|                         | If assets take longer to deteriorate than anticipated then Council would not need to replace them as early as planned. Council would have more time to set aside funds for the replacement of assets and would therefore borrow less when assets eventually did require replacement.   |
|                         | Changes in timing around the requirement to replace assets could also result in the cost of replacing an asset changing (i.e. being more or less expensive than anticipated). Therefore Council would either need to come up with funds if the cost of the project had increased or Council could borrow less if replacement costs had decreased.  |
| Data Source             | National Asset Management Steering Group "Valuation and Depreciation Guidelines" (2002). Horowhenua District Council - Asset Management Plans.   |
| Resource Consen         | ts Requirements  |
| Assumption              | That Council will obtain any resource consents that are required to ensure that it's Water, Wastewater, Stormwater and Solid Waste Activities (and any other activity) can continue to operate. Also that these consents are granted within required timeframes and within anticipated expenditure.  |
| Detailed<br>Forecasts   | Expenditure estimates for resource consents have been prepared based on experience with and observations of trends of previous resource consent processes and standards. These costs have been built into the overall costs of each specific project.  |
| Risk                    | It may cost more than anticipated to obtain the required resource consents, or conditions that are imposed on the consents may be more stringent than expected. The time taken to obtain a resource consent could be longer than anticipated and delay the implementation or construction of the project associated with the consent. There could also be a change in consenting processes/requirements that we can't account for at this time.  |
| Level of<br>Uncertainty | Moderate   |
| Financial impact        | Levels of rating, debt, and capital maintenance expenditures would be higher than expected and/or a reorganisation of other expenditure would need to be undertaken. If the consent process takes longer than anticipated then the costs for the project may need to be extended beyond the anticipated timeframe for the project. If the consent conditions imposed are more onerous on Council (particularly conditions with ongoing costs such as monitoring) than anticipated, or the legal processes involved with the consent are more protracted, these factors could result in the overall cost of the project being higher. This would require additional funding from borrowing, rates, user fees and charges, or other sources. |
| Data Source             | Horowhenua District Council  |

| A = =                   | Council will proof their abligations as a property council and Tamifestal Authority and as the Building (F. 9)   |  |
|-------------------------|--|--|
| Assumption              | Council will meet their obligations as a property owner and Territorial Authority under the Building (Earthquake-prone Buildings) Amendment Act 2016.  |  |
| Detailed<br>Forecasts   | Under the Building (Earthquake-prone Buildings) Amendment Act 2016 territorial authorities must undertake the following for managing earthquake-prone buildings:  identify potentially earthquake-prone buildings and notify the building owners;  consider engineering assessments provided by building owners;  determine if a building is earthquake prone, and if it is, assign an earthquake rating;  issue Earthquake-Prone Building notices to owners of earthquake-prone buildings; and  publish information about earthquake-prone buildings on the Earthquake-Prone Building register.  Council is also an owner of earthquake-prone buildings so must meet their obligations under the Act as a building owner. If Council is issued with an Earthquake-Prone Building notice, Council must take action within the set time frames. |  |
|                         | Horowhenua has been identified as a High Risk Seismic Area, which imposes more onerous timeframes on Council for the identification and remediation of earthquake-prone buildings in the District. In high-risk seismic areas, Councils must identify potentially earthquake-prone buildings by 1 January 2020 for priority buildings and by 1 July 2022 for other buildings. Also in high-risk seismic areas owners of earthquake-prone buildings must carry out seismic work within (time from issue of Earthquake-Prone Building notice) 7.5 years for priority buildings and 15 years for other buildings.   |  |
| Risk                    | Insufficient funding to meet the obligations as an:     a. Owner     b. Regulator (unknown costs of potential legal action)     Shortage of professional expertise to carry out assessments  |  |
| Level of<br>Uncertainty | a. Moderate     b. High     2. Moderate  |  |
| Financial impact        | The cost of strengthening earthquake-prone buildings has an impact on capital expenditure. Council has decided to consult on the potential disposal of Community Halls in the upcoming LTP. Should the Community indicate a desire to retain the Community Halls following that consultation, Council will consider the cost/benefit of completing seismic strengthening of the buildings within the first five years of the LTP.  |  |
|                         | Horowhenua District Council  |  |

|                                    | Ministry of Business, Innovation and Employment  |  |  |
|------------------------------------|--|--|--|
| Otaki to north of Levin Expressway |  |  |  |
| Assumption                         | Council is assuming the development of the Ōtaki to North Levin Expressway will occur.   |  |  |
| Detailed<br>Forecasts              | The New Zealand Transport Agency (NZTA) is investigating options for improving the section of State Highway 1 (approx. 30km in length) from Ōtaki to north of Levin. This is part of the Wellington Northern Corridor project in which has already seen the construction of the Mackays to Peka Peka Expressway. Work on the Wellington Northern Corridor is continuing and by 2021 an expressway will extend from Wellington to north of Ōtaki. To the north of Levin the replacement of the Whirokino Trestle and Manawatu River Bridge is expected to be completed by 2019. |  |  |
|                                    | No decision has been made by NZTA on the long-term form of the section between the general vicinity of Koputaroa Road and the Manawatū River. Options include upgrading the existing State Highway 1 or constructing a separate expressing, potentially bypassing the town centre of Levin.  |  |  |
|                                    | A change of government following the 2017 General Election has meant the timeframes and scope for the Ōtaki to north of Levin Expressway may be changed.   |  |  |
| Risk                               | The Ōtaki to north of Levin Expressway may not proceed within the timeframe of this LTP but may instead be delayed due to other Central Government priorities.   |  |  |
|                                    | Another risk is that it may cost more or less than anticipated to maintain the existing state highway if it is revoked and vested in Council.  |  |  |
| Level of<br>Uncertainty            | Moderate to High   |  |  |
| Financial impact                   | The Expressway will have a financial impact on Council if the new road bypasses the existing state highway, and the existing highway is revoked and vested in Council.   |  |  |
| Data Source                        | Horowhenua District Council New Zealand Transport Agency   |  |  |

\*Risks of key assumptions (population growth and property) have been assessed for likelihood using the following scale. The financial implications of these risks have been assessed (the assessment for property has been provided in the Financial Strategy).

| Likelihood         | Descriptor              |
|--------------------|-------------------------|
| Almost certain     | Is expected to occur    |
| Very Likely        | Will probably occur     |
| Likely             | Might occur             |
| Unlikely           | Will probably not occur |
| Extremely unlikely | Not expected to occur   |