Auckland Council's cost allocation methodology

1 July 2025

About this document

This document:

- sets out the methodology for all projects included in the contributions policy
- provides an overview of the investment in reserves, community spaces, and transport infrastructure the council is planning to support growth. This includes Investments planned for delivery both within the period of the Long-term Plan 2024-2034 and beyond 2034 for the Investment Priority Areas
- describes how we have estimated the cost of the investments included in the policy, the share attributable to growth within the Investment Priority Areas and the consequent development contributions charges that will apply in each area
- sets out our approach to calculating contributions

Within this document:

- all prices are stated excluding GST unless otherwise noted
- all expenditure includes the impact of inflation

In accordance with Section 106(3) of the Local Government Act, this methodology document and other supporting information is kept available for public inspection on the council website at: www.aucklandcouncil.govt.nz.

- This document contains the methodology for infrastructure planned for delivery both within the Long-term Plan 2024-2034 and beyond.

Table of Contents

1.0 Introduction..... 4
2.0 Forecasting Growth..... 5
3.0 Approach to Cost Estimation 10
4.0 Transport Investment 28
5.0 Reserves Investment.....40
6.0 Community spaces Investment 46
7.0 Stormwater investment.....52
Appendix 1: Legislative requirements for calculating development contributions..... 59
Appendix 2: Growth Components – Funding Tools.....60
Appendix 3: Statutory requirements for calculating development contribution 61

1.0 Introduction

1. This document sets out the steps taken to establish the share of the cost of the investments included in the contributions policy, in accordance with the Local Government Act 2002 (LGA 2002) and recovered from developers.
2. The legislation requires our methodology to be made available and for a schedule of contributions to be provided. This document and the current Contributions Policy provide the full methodology for the calculation of development contributions. We have summarised how we have calculated contributions in section 6, Schedule 8, and Attachments B and C of the Contributions Policy.
3. We consider the development contribution principles set out in the LGA 2002 when preparing a development contributions policy. The legislative requirements we must comply with when calculating development contributions are illustrated in Appendix 1 and described in Appendix 3 of this document. These are factors used in the council's Excel based model for calculating development contributions. Appendix 3 also includes references to the paragraphs in this document and the Contributions Policy where application of the statutory requirements are described.
4. The methodology adopted for the Contributions Policy has been refined and improved over time. Projects that were delivered under previous policies and legacy councils retain the methodology that was applicable at the time of delivery.
5. As required under Section 201(1)(a) of the LGA 2002, an explanation of the steps used to calculate each contribution specified in Schedule 3 of the policy is included in Ancillary Information section of the contributions policy which is available on the council's website. The policy also provides an explanation of the way in which each development contribution is calculated.

1.1 Setting development contributions

6. Schedule 13 of the LGA 2002 sets out the methodology which councils are required to use to calculate development contributions. We apply this methodology by identifying

    a) the total cost of capital expenditure that we expect to incur through the Long-term Plan 2024-2034 and beyond to meet the demand caused by growth:

    - Forecast the growth expected to occur in Auckland
    - Identify the degree of performance required of a particular activity, or level of service
    - Identify the total cost of capital expenditure the council expects to incur
    - Identify the proportion of the capital expenditure that can be attributed to growth

    b) Identify the share of expenditure attributable to developments

    - Within a district as a whole or parts of it, referred to as funding areas
    - Based on demand generated by a typical residential dwelling, referred to as units of demand

- Categorised by development types as described in Schedule 2 of the Contributions Policy 2025.

7. When the steps above have been completed, we stand back and consider the overall impact. Allocation of the cost of growth and the level of DCs may impact on landowners and developers, future buyers, ratepayers and the council's wider growth objectives. After considering the fairness and affordability of the impacts, the outputs may be adjusted before a final contributions policy is adopted.

1.2 10-Year and 30-Year Investment Programmes

8. Prior to 2022, our contributions policy only included growth related investment that was within our long-term plan. Over time, we are updating our contributions policy to include longer-term investment projects (beyond the period of our long-term plan) for all our Investment Priority Areas (IPAs): Auckland Housing Programme (Mt Roskill, Māngere and Tāmaki), the north-west (Red Hills, Westgate and Whenuapai), Drury, and the City Centre (CRL Stations at Maungawhau and Karang-a-hape).
9. The methodology used for the 30-year infrastructure investment programme for the IPAs differs in some respects to that used for the wider region. The following document will identify where our methodology differs between the 10-Year and 30-Year Investment Programmes.

1.3 Review of Methodology

10. The methodology contained within this section has been developed by Auckland Council working in conjunction with Auckland Transport and our consultants. The development of this methodology reflects feedback from formal external reviews undertaken as part of the development in 2023 of amendments to the Contributions Policy 2022 referred to as Variation A which added projects beyond 2031 to support growth in Drury. These reviews were as follows:
    - Business and Economic Research Limited - Review of growth model assumptions
    - Deloitte - Auckland Council Cost Estimation Review
    - PricewaterhouseCoopers - Methodology review Beneficiary analysis for Auckland Council's Contribution Policy 2022
    - The Property Group – Public Works Act review for Development Contributions.

2.0 Forecasting Growth

11. Auckland Council uses a number of inputs to assess the expected timing and quantum of growth across the region, including:
    - Future Development Strategy - sets out the vision for how and where we should grow over the next 30 years to achieve the best outcomes for Tāmaki Makaurau.
    - Auckland Growth Scenario. This is the 30-year growth scenario based on the direction set out in the Future Development Strategy. This model provides population, household and employment figures for 2022-2052 by MSM zone

- Structure Plans - a council and community developed land use plan with indicative full buildout yields to guide future plan change processes.

2.1 Growth Forecast

12. To forecast growth we have adopted council's Auckland Growth Scenario 2023 model version 1.1 (AGS23v1.1) with forecasts to 2052, with 2024 as the baseline.
13. When forecasting growth for the IPAs we also identify a date for when full buildout is anticipated to be achieved in each of the IPAs. This full build out date is not included in our wider regional plans as they only extend to 2052.
14. Growth forecasts have been used as the basis for all contributions modelling, including assessing:
    - the ideal timing of Auckland Council, Auckland Transport and central government investment in transport infrastructure
    - the ideal timing of reserve, community spaces and stormwater investment
    - beneficiary and growth share analysis.
15. The forecast number of dwellings is calculated from a combination of historical consenting patterns and growth forecasts. Population is only directly related to dwelling construction in new areas where additional dwellings will result in additional population in the area. However, in partly developed or infill areas it could mean a mix of new residents and reduced occupation of existing dwellings. Forecasts of non-residential floor space are derived from employment growth forecasts.

2.2 Forecasting HUEs

16. Development Contributions are set in relation to House Equivalent Units, or HUE. A HUE is a unit of demand that creates an equivalency factor between a type of development and one average detached dwelling unit (household unit)
17. The HUE forecast is based on the AGS23 v1.1 household forecast adjusted for the predicted type of development based on recent consenting data. AGS23 v1.1 accounts for more than the recent past in making its projections, particularly when compared to SNZ projections. In some areas the recent rate of growth will not continue. Some areas will reach physical or infrastructure limits and slow, others will grow much faster as infrastructure investment rolls out and development ramps up.
18. The forecast reflects a wide range of existing analysis and strategic decision making, including the existing Auckland Unitary Plan, the Housing and Business Assessment, the Future Development Strategy, the Infrastructure Strategy, and the Long-term Plan. Other infrastructure providers including AT, NZTA, central government agencies and private infrastructure providers also input into the strategic decisions reflected in AGS23 v1.1. They also use AGS23 v1.1 to inform their planning. It is a key coordination and implementation tool. However, these all reflect the best information available at the time and will be regularly updated over time.
19. Stormwater HUEs are based on Impervious Surface Area (ISA), as ISA is better proxy for demand on stormwater infrastructure than household units. More intensive developments (on average) generate less ISA per household than lower density developments. It is reasonable to assume on average, dwellings in greenfields areas will be less intense than

areas with higher accessibility and demand (which would be concentrated in 'brownfields' areas). In addition, not all properties connect to the stormwater network. Our HUE assumptions reflect an allowance for that.

2.3 Full Build out for IPAs

20. The DC policy includes investment in parks, community and transport infrastructure over the next thirty years for the IPA areas of Drury, Red Hills-Westgate-Whenuapai, Māngere, Mount Roskill and Tāmaki. It also includes stormwater infrastructure required over thirty years in Drury and Tāmaki. In determining investment for these areas, we have considered the anticipated growth until each area is expected to be fully developed.
21. Full build out dates have been extrapolated from the AGS23 v1.1 (year 2052) by applying an even growth distribution from year 2053 to the date when the full buildout is achieved for each IPA area. The expected full build out date for each IPA is shown in table 2.02.
22. In addition to growth within the Inner North-west (Red Hills, Whenuapai and Westgate), growth across the wider North-west (such as Kumeu-Huapai and Riverhead), has also been considered when scoping infrastructure requirements as demand in these wider areas impacts the study area. Transport has considered growth across this wider catchment when planning network requirements and timing. Open space and community facility network planning has also considered the wider North-west area to align with the catchment areas for aquatic and sports courts facilities. Growth forecasts for the Inner North-west and areas of Kumeu-Huapai and Riverhead is summarised in the table 2.02.

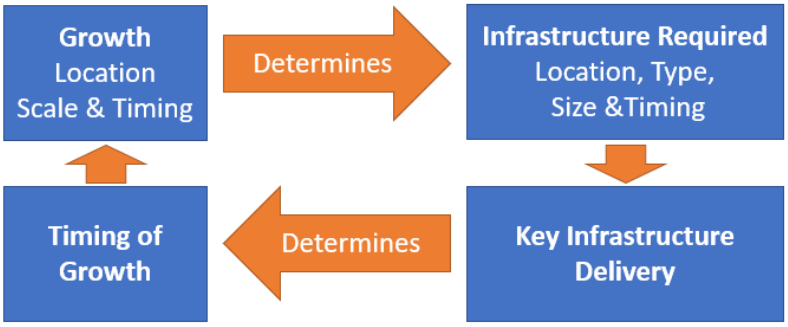
Table 2.02: IPA Areas Growth to Full Build Out

	Household		Population		Employment		Forecast Full Build Out Date
IPA Area	**2024**	**Full-buildout**	**2024**	**Full-buildout**	**2024**	**Full-buildout**	
Drury	**2,163**	**24,630**	**5,828**	**62,265**	**2,482**	**11,271**	**2060**
Māngere	**15,112**	30,195	60,520	111,742	9,263	22,951	2060
Mount Roskill	**21,633**	41,821	67,153	130,547	16,229	29,542	2060
Tāmaki	**8,447**	21,626	25,717	65,853	9,193	14,064	2060
AHP Totals	**45,192**	**93,642**	**153,390**	**308,142**	**34,685**	**66,557**	
Red Hills	**1,203**	15,263	3,404	36,715	529	4,399	2065
Westgate	**13**	2,445	42	7,158	2,608	10,680	2060
Whenuapai	**1,732**	20,457	5,046	51,938	7,111	22,597	2080
RWW Totals	**2,947**	**38,165**	**8,492**	**95,812**	**10,248**	**37,676**	
Kumeu-Huapai	**2,653**	11,300	7,778	25,933	2,906	5,751	2080
Riverhead	**1,231**	1,807	3,741	4,737	756	706	2080
Wider NW Totals	**3,884**	**13,107**	**11,519**	**30,670**	**3,662**	**6,457**	
RWW+ Wider NW Total	**6,831**	**51,000**	**20,011**	**127,000**	**13,910**	**44,000**	

23. The population at full build out is used to determine the ultimate requirements (type, location and size) of infrastructure in each area.

2.4 Impact of growth on type, size, and timing of investment

24. Growth forecasts form the basis for the type, size and timing of the infrastructure investment required.
25. The growth measures used to set contribution charges depends on the nature of the infrastructure being delivered, for example, population for community spaces, population densities combined with proximity metrics for reserve acquisition, impervious surface area for stormwater. Transport use a range of measures, depending on the nature of the project. See section four to seven for more detail on how each asset group assesses growth.
26. While growth is accumulating across the time period, the phasing of growth will depend on the delivery of the key enabling infrastructure:



27. Project delivery timing is determined by when growth in the area triggers the need for that project. Projects not required within the next thirty years are not included in the current Contributions Policy but will be incorporated in future updates when appropriate. Depending on the rate of growth, some projects may have an interim solution and a final solution. For example, a rural road may be upgraded to an urban two-lane collector road to serve initial development, then later upgraded to a four-lane arterial when growth reaches an appropriate level.

28. In allocating growth costs to DCs, the council also considers the factors set out in the following table:

Factor	Considerations for growth cost allocation to DCs
Activity that can be funded from DCs	The LGA 2002 sets out what activities and types of infrastructure can be recovered through development contributions. Any growth-related capital expenditure that is not able to be funded by development contributions is excluded.
Other funding sources	Development contributions cannot be used for any project or part of a project that is funded from another source. Any growth-related capital expenditure to be funded by third parties such as Waka Kotahi New Zealand Transport Agency (WKNZTA) is excluded from the allocation to DCs. Funding from other third-party sources such as grants, developer funded works and any funding from financial contributions and targeted rates is excluded.
Capacity absorbed by existing development	Some of the increased capacity delivered by a project or programme may be absorbed by existing residential and commercial development. This factor is considered in determining the share of growth investment to be paid for through DCs, and the share to be paid for through rates (because it is funding "backlog" or improvements to existing residents and businesses).
Growth capacity over time	DCs are set to recover the proportion of costs of a project that is expected to be consumed by growth over the period of the investment programme. For projects in the IPA areas this period is the next 30 years. For all other projects, this period is 10 years. The growth capacity of capital projects differs. Some projects included in the Contributions Policy will provide capacity to support the level of growth forecast over the investment period. After that time additional investment will be required to support further development. Other projects will provide capacity to accommodate growth over a longer time frame than the DC period. Our contribution prices are set based on the total growth that benefits from each project. This means that growth within and beyond the period of the Contributions Policy will pay a fair share of the cost of each project.

2.5 Projects to be delivered

29. We establish our capital expenditure programme by prioritising demands for infrastructure through the long-term plan decision making process. The Long-term Plan 2024-2034 sets out the capital expenditure programme for each activity in Section 2 of Volume 2. Our 30-year capital expenditure programme for IPA areas is consulted on and agreed alongside our Development Contributions Policy.
30. The Contributions capex programme identifies both specific projects, as well as broader capital investment programmes that will deliver a range of projects. We use capital investment programmes for:
    - investment in the outer years of the programme, where specific project designs and location cannot be identified until growth has occurred
    - investment that is commercially sensitive (such as for reserve acquisitions)
    - ongoing programmes that support all of Auckland (such as transport safety) and which encompasses a range of smaller projects
31. The full costs have been estimated to deliver all infrastructure projects and will be funded through a mix of rates, development contributions, developer mitigation works and third-party funding such as National Land Transport Funding (NLTF) administered by Waka Kotahi.

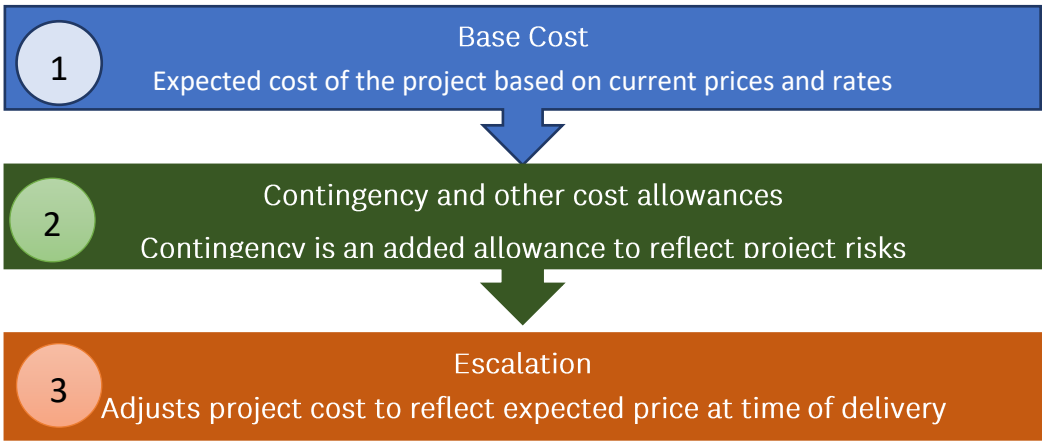
3.0 Approach to Cost Estimation

32. This section sets out the overarching methodology used to calculate contribution prices across the council group. It sets out our general approach to:
    - Cost projects, including contingency and price escalation
    - Identify the level of service and growth shares of project costs, excluding mitigation works, third party funding, renewals
    - Allocate the growth share of costs to funding areas
    - Setting the unit of demand that are used to charge contributions
    - Adjusting the investment programme for interest and financial considerations
33. The application of this methodology depends on the nature of the infrastructure asset being funded. The specific methodology used to assess contributions charges for each type of infrastructure, including project costing and analysis of beneficiaries and growth share, can be found in sections four to seven.
34. The methodology council uses for costing projects depends on the project stage as shown in the table below.

<table>
<tr><th>Stage</th><th>Land Costs assessed as:</th><th>Physical Works assessed as:</th></tr>
<tr><td>Initial Assessment</td><td rowspan="2">Rateable Valuations or average cost psm in area</td><td rowspan="2">Quantity Surveyor assessments of Linear/Unit Rates based on Generic Projects</td></tr>
<tr><td rowspan="2">Indicative Business Case</td></tr>
<tr><td rowspan="2">Registered Valuation</td><td rowspan="3">Quantity Surveyor assessments based on more detailed information”</td></tr>
<tr><td>Detailed Design</td></tr>
<tr><td>Land Acquisitions</td><td rowspan="3">Actual cost</td></tr>
<tr><td>Physical Works contracted</td><td>Contracted cost</td></tr>
<tr><td>Construction Complete</td><td>Actual Cost</td></tr>
</table>

35. Our contribution charges have been calculated using updated cost estimates based on the latest available data. As projects move through each stage costings will become more accurate. Individual projects may not pass through every stage. For example, some projects may start at Indicative Business case or have no land acquisition requirements. Other projects may pass through additional stages. For example, community facilities such as libraries will usually include stages for Concept Design, Preliminary Design and Developed Design to enable appropriate community and elected member input before the detailed design is completed.
36. Updated project costings are incorporated into the contributions policy when the policy is reviewed in full every three years.

37. There are three key stages to establish a project cost estimate: Base Cost, Contingency and Escalation, as shown in the diagram below:

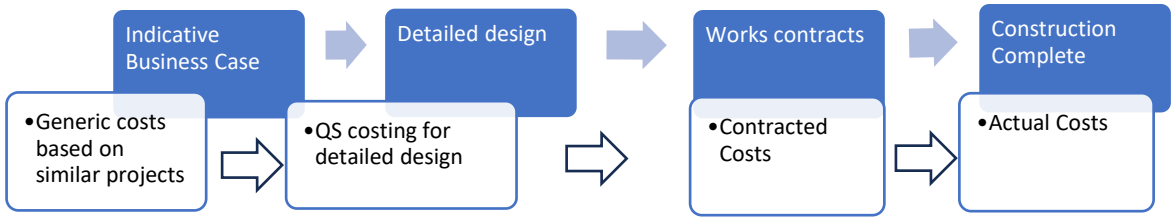


3.1 Base costs

3.1.1 Construction/Physical Works Costs

38. Construction and development costs include both planning and construction costs associated with an infrastructure project. These costs will depend on the nature of the infrastructure and facilities to be delivered, and the specific characteristics of the land to be developed.

39. Costs included in the Contributions Policy are based on the latest available information at the time the policy is prepared. The approach to costing depends on the project stage as shown below:



40. Physical works costs are updated every three years as part of the three-yearly review of the Contributions Policy. This ensures each Contributions Policy is based on the best available information about the level of Council capital expenditure.

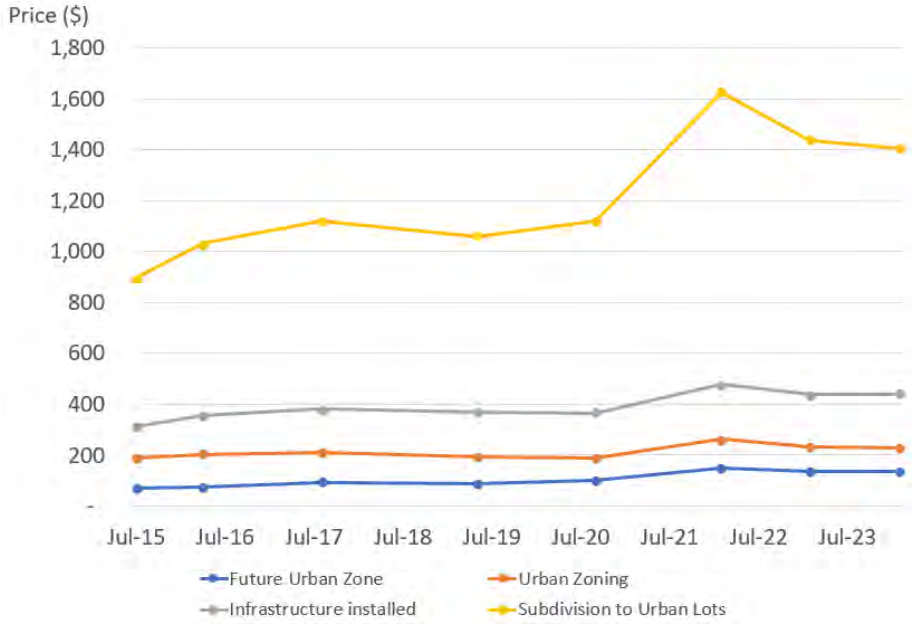
3.1.2 Land Acquisition costs

41. Our approach to land costing depends on the timing, location and nature of the acquisition. For acquisitions in the near term, council uses formal valuations from registered valuers. For longer term acquisitions, we estimate costs using rateable land values, and market valuation data. Where land is to be acquired in greenfield locations, we consider the impact of development on future land prices, as set out in section 3.1.3 following sections.

42. Land costs include allowances for transaction costs. Land that is to be acquired through the Public Works Act (PWA) is subject to additional transaction costs, see section 3.1.4

3.1.3 Greenfield Land Acquisition: Land Development Stage Price Model

43. Future Urban zone applies to rural greenfield areas that the council has identified for development to urbanise over the next thirty years. Land within the future urban zone is subject to rural development controls; urban development can only occur once the land has:
    - been rezoned for urban development, either by council, as part of its planned re-zoning process for the general area, or by landowners, through private plan changes
    - the infrastructure (roads, water/wastewater, stormwater) required to enable the development.
44. In moving from greenfield to urban development, land passes through several key stages of urbanisation:
    i) Future Urban Zoned
    ii) Live Zoned: Land is rezoned for urban development
45. Infrastructure Installed: Bulk infrastructure is provided – this is the major road, water/wastewater, and stormwater infrastructure that serves and/or connects suburbs/catchments
    - Subdivision to urban lots: Developers provide the local infrastructure and subdivide the land into urban sized land. These lots are ready for the construction of housing or business units.
46. The movement in the value of land as it changes from Future Urban zoned to urban sub-division is significant. Accordingly, land that has reached a higher stage of urbanisation attracts a higher price than land at an earlier stage. Figure 3.1.1 following shows the average price per square metre for land in each of the four urbanisation stages across Auckland, between July 2015 and February 2021.Figure 3.1.1 Price per square meter for land in development pipeline, July 2015 and July 2023.



47. The particular growth-related infrastructure (assets or programmes of works) that contributions are used to fund is set out in Schedule 8 of the Contributions Policy. The

land required for these projects will be acquired over time, in accordance with the requirements and timing of each project. Land that is currently future urban zoned may well be at a higher stage of urbanisation at the time it is to be acquired by the council. Such land would be expected to attract a higher price than its current rateable valuation would indicate. This means that to fairly estimate the cost of acquiring land in greenfield areas the council needs to consider:

- the current value of the land
- the likely stage of development of the land at the time of acquisition
- the expected overall movement in land prices (as set out in section 3.3 below).

48. The council and Auckland Transport use the Land Development Stage Price Model to estimate how the average land price of land at different development stages in the Drury and Red Hills-Westgate-Whenuapai will change over time. This model splits the subdivision into urban lots above into two stages super lot and compact lot. The five stages of land development. are shown in table 3.1.2 following:

Table 3.1.2 Urbanisation Stages

Urbanisation stages:	Description
1. Future urban zone	Land is zoned future urban zone. Rural development controls remain in place
2. Live Zoned	Land is rezoned for urban development
3. Infrastructure Installed	Bulk infrastructure enabling development is installed
4. Super-Lot	Land is subdivided into super-lots of 1,000 to 4,000 square metres. (This size lot is generally acquired for medium to high density multi-unit housing developments)
5. Compact Lot	Land is subdivided into compact-lots of around 300 sqm

49. The model applies these inputs:

- the average cost (as at Feb 2024) of land in each development stage (Future Urban Zone, Live zoned, Infrastructure Installed, super lot, compact lot) in sub-areas of greenfield areas. These prices have been obtained from external and internal valuation advice.
- the current assumed development stage for each sub-area (a combination of one or more MSMs - MSM areas are the sub-areas identified in the council's Macro-Strategic Model)
- the expected timing each MSM sub-area will change from one development stage price to the next. We have developed this timing based on current planning rules, expected growth over time, and timing of the key infrastructure that will enable growth to occur
- the Chief Economist Unit's general land price escalation (as per section 3.3).

50. For each MSM sub-area in the development area, the Land Development Stage Model:
    a. starts with the average per square metre cost of land for the current development stage of the MSM sub-area
51. increases this price in a step-wise fashion to the next development stage land price, based on the projected phasing of development overall in that sub-area, to project land prices for each sub-area for each year from 2024/2025 to 2053/2054
52. escalates prices in point 2 for the CEU's average land price escalation.
53. The Land Development Stage Model provides an average forecast price within each sub-areas for each year.

54. For some projects, the specific property/properties to be acquired is not yet known. This is either because the land will be selected from properties available on the market at the time of acquisition (such as for reserves and community facilities), or because the location/route of the project has not yet been finalised (some transport projects which are still in their early stage of planning). For these projects, land acquisition costs are estimated using the Land Development Stage Model. The model's average price for the funding area/MSM sub-area the project is located in, for the year of acquisition is applied to the total land area required for the project.
55. Where specific property information is available, the land cost acquisition is estimated based on a comparison of the property's rateable land valuation with the average land cost for the property's sub-area determined by the Land Development Stage Model. This is done by assessing:
    - **Future rateable land value price**: the current rateable land value divided by the total land area, escalated for the for the year of acquisition using the average land price movement (as set out in section 3.3). No adjustment for change in urbanisation development stage is applied
    - **Land Development Stage Model price:** This is the average land price for expected urbanisation development stage of the property's sub-area in the year of acquisition, adjusted for the average land price movement (as set out in section 3.3)
56. If the estimated future rateable land value price is higher than the Land Development Stage Model price, then this indicates the land is already at higher stage of development than is forecast in the Land Development Stage Model. In this case, we use future rateable land value price to estimate the cost of acquiring the property.
57. If the Land Development Stage Model price is higher than estimated future rateable land value price, then this indicates the property is expected to be further developed before council's acquires it. This means that the future rateable land value price is likely to underestimate the cost of acquisition. In this case, the Land Development Stage Model price is used to estimate the cost of acquiring the property.
58. If the location of a new greenfield corridor is unknown, specific property information is unable to be used. Instead, we cost using the required land area multiplied by the Land Development Stage Model price for the project's MSM sub-area for the year of acquisition. If the project crosses two MSM sub-areas, then we use an average of the two prices for these zones.

Slippery Creek Flood Plain pricing methodology:

59. The methodology in section 3.2 is not applied to land within the Slippery Creek flood plain. Over the last few years considerable work has been undertaken by council to ensure our planning approach accurately reflect the risks to development on such sites. This work has now provided a reasonable level of confidence that land within the Slippery Creek flood plain will not be able to be developed. Accordingly, the land prices for land within this flood plain have now been assessed to exclude future development potential as follows:
    - properties fully within the flood plain are priced based on the rateable land value per square meter rate as above i.e. (council's 2021 rateable land valuation)/(total land area) escalated for the year of acquisition using the CEU land price escalation

- properties partially within the flood plain are apportioned between developable land area (which is priced on the standard model) and the flood plain area (priced on the rateable land value per square meter rate as above).

60. Rateable land valuations reflect the impact of flood risk on property land price to the extent that this risk has been recognised by the market (as at June 2021). Significantly lower rateable land value prices for these properties compared to adjacent non flood plain land suggests that the rateable land values do reflect this risk.
61. There are other smaller, flood plain areas outside of Slippery Creek within Drury. The council's current view is that these other sites are, on balance, more likely to be developable with appropriate stormwater engineering. Accordingly, prices for these sites continue to reflect future development potential.
62. Information on how this methodology has been applied and the approach to estimating the other costs associated with property acquisitions for transport, community spaces and parks can be found in sections four to seven.

3.1.4 Impact of Higher Development Contribution Charges on Land Price

63. The price developers are willing to pay for developable land is determined by the price they expect to sell the developed property for, less the cost of development, and their expected profit margin. Any significant actual or expected increase in development costs, such as higher contribution charges, can be expected to lower the price that developers will be willing to pay for land.
64. It is expected that the change in what developers will be willing to pay for land would occurs nearly instantaneously in response to the signal – i.e. when a change to the DC policy is credibly announced and/or confirmed ('the policy'). The adjustment will be revealed in the subsequent sales transactions or in valuations. That adjustment may not be readily visible, given other factors that also influence land values at the same time (e.g. demand fluctuations through the economic cycle, signal of infrastructure investment).
65. The council considers that the impact of contribution charges is sufficiently reflected in its current land pricing model, through its use of updated greenfield land price inputs, as identified in section 3.1.3, and updated land price escalation rates (see section 3.3.)

3.1.5 Improvement Values (IV)

66. For full property acquisitions we must pay the value of the land including any improvements on the land. We assess the cost of improvements as being the current rateable capital value minus the current rateable land value. (Note that this Improvement Value (IV) is not a measure of the actual cost of the improvements (how much it would cost to build them) but is a reasonable measure of the difference between the land value, and the full market value for the property.) Price escalations are applied to the land component only, no escalation applied to the improvements. This is on the basis that once a notice of requirement designation is in place, no further development/improvement will occur, and as such the value of any improvements as a proportion of the value of the land will decline over time.
67. We assume there are no improvements on temporary lease land, as only bare land is leased.

3.1.6 Temporary lease pricing

68. Where land is required on a temporary lease basis, this has been priced at seven per cent of the land cost, calculated on the basis set out above. Lease land is assumed to have no improvements, as only bare land is leased.

3.1.7 Surplus land

69. In some cases, the council will need to acquire a full property, when only part of the property will be required for the completed property. This can be in situations such as where the:
    - amount and/or nature of land required from the property is such that a partial acquisition is impractical
    - land is required beyond the standard road corridor cross sections to form embankments (i.e. to raise flood prone land)
70. In most cases, the residual land beyond the road corridor will not be developable and will ultimately form additional road reserve. Where practical, usable land will be disposed of on the open market, with funds raised applied as a credit to the project cost.
71. Sometimes, where a landowner is facing significant hardship, we may need to acquire a property earlier than planned. This usually involves acquiring the full property. Where the project only requires a partial acquisition, only the portion of the land acquisition cost attributable to the project is included in the contributions policy.

3.1.8 Public Works Act transaction costs

72. Land that is purchased through the Public Works Act (PWA) attracts higher transaction costs than land purchased from a willing seller.
73. Under the principle set out in Part 5 of the PWA is that the landowner is entitled to full compensation for their land to ensure that that the financial position is no better or worse than before any public work acquisition took place. Acquisitions assumed to be under the PWA are priced based on the expected highest and best use of the land at the time of acquisition[1].
74. For near term acquisitions, allowances for PWA costs are assessed based on the specific circumstances of the properties to be acquired. For projects in the 30-year investment programme, allowances for the following transaction costs have been included for acquisitions assumed to be under the PWA:
    - compensation for costs incurred for legal representation, valuations and moving
    - additional compensation where the property is used as the primary residence for the owner of the land (section 72 of the PWA). The council's valuation information identifies where dwellings exist on properties, but not the nature of occupancy (eg owner-occupier, residential tenancy or vacant). For modelling purposes, this allowance is applied to all properties not owned by a company that have one or more dwellings on the land.

[1] This includes compensation for things over and above the land itself, including disruption to services, relocation of services, compensation for / reinstatement of assets lost to another location (e.g. sports fields). For this reason, our standard pricing methodology, including adjustment for future development stage for the local area, is applied to acquisitions of reserve land with open space zoning. This enables council to acquire comparable land within the area to replace the land taken.

- injurious affection. The PWA requires compensation for injurious affection to be considered for all partial acquisitions of land. This is an additional amount to compensate an owner for negative effects the project will have on their remaining land. An allowance of 0% to 30% of the land cost is applied, where IA risk for a specific property is known. Otherwise, the medium 20% risk is applied as the default
- additional allowance for compensation may be applied where the specific circumstances of a property are known and warrant this.

3.1.9 Updating land acquisition costs over time

75. When the actual land is acquired in the future, some properties may be more developed and attract a higher price than has been currently forecast, while others will be less developed and attract a lower price. The impact of land cost variation on the DC prices is mitigated through the three-yearly reviews of the contributions policy.
76. Overtime, as the land acquisition date nears, more accurate information about the cost of properties to be acquired will become available. This includes detailed project designs, which will refine land requirements, and updated and more specific property information, including development stage and level of improvements. As the council moves into negotiating and acquiring land, formal land valuations will be undertaken, and finally an acquisition price agreed. This refined land cost information will be incorporated into the triennial contributions policy update.
77. The impact of any future changes to estimated land acquisition costs will be considered in terms of the overall impact to the DC price, including the impact of all other revisions to growth programmes/projects within the contributions policy, as part of the three-yearly policy review process.

3.2 Contingency

78. Cost projections for capital projects are based on the best available information at the time of adoption and are set at a mid-point of the expected total project cost. For more complex projects a formal estimation process may be undertaken whereby a range of cost outcomes are estimated and budgets are set at a P50 level, being a level under which there is 50 per cent confidence the final cost will sit. Supporting information to inform projections can include historical costs of similar projects, supplier quotes or estimates, independent cost estimations, or expert advice. By using a midpoint (or P50) projection across our significant, and broad-based, investment programme the expected outcome is that the overall cost of investment should equal the total of the mid-point estimates.
79. Our approach to contingency differs between asset types, based on the relative risks and options for managing the non-cost contingency of projects. Parks project costs are managed by adjusting the scope of the final project design, and through choices regarding the size and location of land. As such, these projects attract contingency of between zero and 10 per cent, depending on asset type and project phase. Community spaces projects require a specific service and function in a location based on provision-policy guidelines, accordingly a 15 per cent contingency is applied.
80. Network infrastructure such as transport and stormwater normally require land from specific properties and must meet mandated engineering standards. Unlike park acquisition and community facilities there is limited ability to manage costs through location or design choices. Examples of risks include:

- the specific geology of the area, which can impact the level of earthworks and requirements for foundations
- changes to design standards over the time
- whether projects will affect underground services in brownfield areas
- the precise design as it relates to elements such as vertical alignments, retaining walls versus embankments, property access and stormwater treatment
- changes required to give effect to conditions of consent
- need for offline structures to maintain traffic flows on existing roads through construction phase.

81. High rates of contingency are applied to network infrastructure projects in the earliest phases of their development, with lower rates applied as the project progresses through design phases towards completion. For example, typical contingency for stormwater projects is 40 per cent at concept design stage, decreasing to five per cent at detailed design.
82. This is because contingencies are applied to manage the risk of the unknown – factors that are already known are accounted for in the base cost estimate. As more becomes know about a project, as it proceeds through the phases of development, the base project cost estimate becomes more accurate and the level of contingency applied decreases.
83. Contingency may be managed at the programme level, where planning is at an early phase. In this case, risk will be assessed across the programme as a whole, and an average contingency rate applied. See sections four to seven for more information on the specific contingency assumptions applied by our asset groups.

3.3 Cost Escalation

84. Prices for land, labour and materials will change over time. We adjust our base cost estimates assessed for current project costs for the expected prices at the time the project is to be delivered.
85. The following escalation rates have been used across all projects included in the 30-year DC programme. These rates were sourced from the council's Chief Economist Unit.

Measures (percent)	Date of forecast	2024/25	2025/26	2026/27	2027/28 and long-run projection
Construction cost	Dec 2024	3.20%	3.20%	3.10%	3.10%
Land price	Dec 2024	2.80%	7.00%	4.30%	7.10%
Labour cost	May 2024	3.5%	3.3%	3.2%	2.2%

86. For construction, the long-run cost escalation factor is 3.1 per cent per year. It is based on changes in prices for the supply of goods and services (outputs) in the construction industry over 1994 to 2022. The long run view for construction and labour costs is used as this reflects movements taking into account multiple economic cycles. This view of long-term cost escalation is consistent with previous forecasts that considers cyclical behaviour of construction and labour cost increases and is considered a reasonable forecast of long-term cost escalation for construction prices.

87. For land acquisition, the long-run cost escalation factor is 7.1 per cent per year, based on the compounding average growth rate for the median house price between 1992 and 2022. In the near term, land prices are forecast to be lower than the long-run average increases. In developing our thirty-year projection, consideration was given to the rate at which median house price had moved over the last five years, 5.7 per cent. However, it was determined that it was more robust to use the longer time frame when modelling for the next three decades. This is because the thirty-year view covers multiple economic cycles, compared to the five-year view during which there have been unprecedented events such as COVID. This view is consistent with previous forecasts for land price escalation factors and considers the cyclical behaviour in house price increases. In addition, it is probable that median house prices understate the long-term movement in land prices.

3.4 Mitigation Works

88. Developers may be required to provide infrastructure to mitigate the effects of their development as a condition of resource consent under the Auckland Unitary Plan (AUP). These works are not funded by council and are not included in our DC policy.
89. In greenfield areas, in addition to providing all local infrastructure within their developments, developers may need to deliver neighbourhood works such as:
    - upgrading existing rural roads that connect to the development to urban standard
    - installing stormwater network infrastructure.
90. Developers of brownfield areas sites already serviced by urban infrastructure generally aren't required to provide neighbourhood works outside their site, but sometimes, based on the scale of their project, need to undertake works such as upgrading street frontages (footpaths and verges) adjacent to their sites, reinstate road assets affected by utility upgrade works. They may also be required to mitigate any additional stormwater runoff from their property.
91. We make an assessment of the level of mitigation works that will be delivered when determining which projects will be included in the DC policy. Projects that are expected to be delivered as mitigation works are excluded from the DC policy. Where developers are expected to provide part of a project, such as street frontages, we discount the project costs included in the DC policy for the share of the project costs expected to be delivered as mitigation.
92. Our approach to assessing mitigation for each of asset groups is set out in sections four to seven.

3.5 Third Party Funding

93. Any third-party funding received by for the delivery of an infrastructure project is excluded from the cost that project in the DC policy. Our primary source of third party funding for growth related infrastructure are NZTA/Waka Kotahi grants from the National Land Transport Fund (NLTF). These provide partial funding for major transport infrastructure and arterial routes.
94. Our assumptions on third party funding over the period of the council's Long-term Plan can be found in our Long-term Plan 2024-2034. For the 30-year infrastructure programme for transport see section four further in this document.

3.6 Expenditure attributable to growth

Allowance for costs to be included

Legislation requires the total cost of the capital expenditure the council expects to incur to meet increased demand resulting from growth to be included in development contribution calculations.

The legislation also imposes limitations requiring the exclusion of certain sources or types of funding such as operating and maintenance costs, subsidies, grants, developer funded works or rates funding.

95. DCs can only be charged for the share of project costs attributable to growth. To determine this share, the council must consider the factors set out in the following table:

Type	Definition
Renewal	Maintains and continues the provision of services. Increases the physical integrity and remaining life of assets with no change to the asset base. A renewal project/programme may include a growth component
Level of service	Results in improved standards of quality, reliability, responsiveness, safety, comfort, flexibility, regulatory requirements or similar. May or may not result in new or additional assets. A service level improvement project/programme may include a growth component
Growth	Increased availability and capacity to cater for increased people, water, traffic or similar. Associated with an increase in the asset base – the number of assets, total area or length – as distinct from expenditure that is related to the existing community. A growth project/programme may include renewal or level of service components and may include demand generated by the existing community.

96. Projects and programmes may include elements of renewal, service level improvement and growth. The council apportions the cost between these factors based on what is causing the need to invest and the distribution of benefits between existing residents (renewal and level of service) and new development (growth).

97. The approach to allocating costs between renewal, level of service and growth is based on the latest information available. As this can vary for each type of infrastructure, the approach we take is set out in sections four to seven.

98. Some projects and programmes are only delivering benefits to growth areas or only required to support or manage the impact of growth. In these cases, the costs will be allocated to growth.

99. For programmes encompassing a wide range of related projects undertaken across the region, the costs may be split based on evidence from similar projects delivered in the past or by using population growth as a proxy for the share to be attributable to growth. Where population growth is used, the share of the project attributable to growth is based on the expected population growth as a proportion of population at the end of the period.

3.6.1 Renewal

100. When an asset reaches the end of its useful life, it must be replaced, or service levels will decline. Replacing an end-of-life asset is known as renewal. The cost of renewal falls to ratepayers and cannot be attributed to growth.

101. The renewal cost is the cost of replacing an existing asset on a like for like basis. For example, if a growth project upgrades a road from two lanes to four, the renewal cost is only the cost of replacing the two-lane road.
102. If a growth infrastructure project replaces an existing asset, consideration must be given to whether a share of the costs of the project should be attributed to renewal. The share of cost attributable to renewal is determined by the level of benefit to existing ratepayers from replacing the asset. This benefit depends on the condition of the asset and the number years of useful life it has remaining at the time it replaced.
103. If an asset is at the end of its life at the time it is replaced by a growth project, 100 per cent of the renewal cost is attributable to the renewal share. Conversely, if the asset is in good condition, with decades of remaining life, any benefit from replacement is offset by the loss of remaining asset life.
104. Some council assets, such as road seal, has relative short life spans. Others, such as road pavements and stormwater pipes, have very long lifespans. The approach to assessing renewal share depends on the nature of the assets being replaced. Refer to the following sections for the renewal assessment approach used for different categories of infrastructure.

3.6.2 Level of Service (LOS)

105. Once any renewal share of project costs has been removed, the remaining cost is apportioned between growth and the existing population, based on the share of benefit each receive from the investment.
106. The assessment of benefit considers both causation (creating the need for) and benefit from the infrastructure. We assess causation by considering whether the project would be delivered in the absence of growth. If yes, we apportion causation between growth and LOS, if no, then causation is 100 per cent growth.
107. A project creates a benefit for the existing population if it provides a high level of service than currently provided. In this case, benefit will be apportioned between existing and growth. If the project is being delivered solely to mitigate the effects of growth, then the project is 100 per cent growth.
108. The council uses service levels to establish the investment required to support growth. Level of service standards are also used to identify areas of Auckland that are currently underserved by infrastructure. Combined, this information helps inform the council's priorities for investment in our capital expenditure programme.
109. Level of service statements for the council's activities are set out in Section 2.0 of volume 2 of the Long-term Plan 2024-2034. These statements provide the key service level indicators for the activities. Detailed information on levels of service can be found in plans and policies on service provisions which are separate to the long-term plan budget. These documents provide the technical detail that is the basis for the council's service levels for each asset class.
110. The approach to assessing causation and benefit depends on the nature of the infrastructure. Information on how level of service has been assessed can be found in the following infrastructure specific sections.

3.6.3 Assessing the benefit period/Intergenerational equity

111. Our contributions policy includes capital investment over the next:
    - 30 years, for projects in the IPA areas (Drury, Red Hills/Westgate/Whenuapai, Māngere, Mount Roskill and Tāmaki)
    - 10 years, for all other projects.
112. In addition to assessing the share of benefit to the existing population (from renewal and level of service increase) we must also determine the period over which benefit to growth accrues. The growth benefit period is the earlier of either the date at which:
    - the capacity provided by the infrastructure is fully consumed
    - the area served by the infrastructure is fully developed (the full build out date).
113. Some projects will reach full capacity before the end of the DC infrastructure investment period. In this case, our policy only applies DC charges for the projected to growth that occurs before its capacity is fully consumed.
114. Some projects will continue to provide benefits to growth occurring beyond the 10 or 30 year investment period. In particular, for the IPA areas, we have assessed required infrastructure demand based on the expect date each area will be fully developed, which extends beyond 30 years. In this case, we assess the growth share of capex across the whole of the growth benefit period.

3.7 Funding areas

115. Funding areas are set to allocate the costs of growth to the developing properties that will benefit from or create the need for the investments in infrastructure. The area over which the benefits of a project delivered to support growth extends varies depending on the nature and scale of the project.
116. It is impractical to create and administer funding areas for each project. Individual projects are aggregated into broader funding areas by asset type. Projects are allocated to a funding area, or areas, along with the share of the cost of growth of that project attributable to that funding area.
117. In determining funding areas into which projects are aggregated, the council exercises judgement balancing the difference between pricing in smaller sub-areas relative to the average for a larger funding area. The process of averaging charges into fewer larger funding areas will result in some charges being lower and others higher than would be the case if smaller funding areas were used. We weigh variations in the level of benefit received and associated charge within a larger funding area against the administrative cost of having many smaller funding areas.
118. This process is undertaken in two steps:
    - establishing the area of benefit for each project
    - balancing exercise to determine appropriate funding area aggregation.

119. The council applies three tiers of funding area as shown in table 3.6 below:

Table 3.6 Funding Area Tiers

Tier	Description
Regional	used for infrastructure that provides equivalent benefit to all growth across the region. Infrastructure included in this tier level is usually an integral part of the regional network such as strategic transport infrastructure, or our network facilities such as sports fields. The infrastructure enables growth to occur across the regional and are available to the whole community without barriers to access or use.
Sub-regional	used for major programmes of work that are integral to a sub-regional network such as east-west link connections and destination facilities like pools. The infrastructure enables growth to occur across a smaller but substantial geographical area and will provide benefit to the same or similar extent within that area.
Local	used for infrastructure which serves a smaller geographical location such as stormwater ponds, or neighbourhood parks. The infrastructure provides benefit to multiple developments although they are primarily for the use of residents with proximity to the infrastructure.

120. Some programmes deliver a range of smaller projects across multiple areas. When the nature of the benefits or the drivers of demand are similar across the region, and the costs of providing the infrastructure are likely to be the same irrespective of location, then they will be grouped together at the regional or sub-regional level.

3.8 Unit of demand

3.8.1Development types

121. We have categorised developments into types to reflect the demand each development type places on the need to invest in infrastructure. In setting the development types, we consider the:
    a. need to separate residential and non-residential activities because of the different demands they place on activities of the council
    b. range and scale of residential developments
    c. range and scale of non-residential development
    d. complexity of including all types of development in the policy
    e. availability of data to support differential unit of demand factors for various types of development.
122. The demand on council services varies widely across different forms of non-residential activity. Non-residential developments, particularly retail and production and distribution can be used for a range of non-residential activity that have differing demands on infrastructure. The nature of the activity undertaken in these developments can vary over time and because of this, we have grouped non-residential development types into broad categories based on average demand.
123. Residential dwelling types are set to reflect the lower demand more intense development generally place on the need to invest in infrastructure. We also apply sub-categories of detached and attached dwelling units based on size. These reflect the higher average occupancy levels of larger dwellings and the demand they generally place on the need to invest in infrastructure. We have used dwelling size and occupancy rates obtained from Statistics New Zealand to determine these.

3.8.2 Demand factors

124. Units of demand for a development type is based on the infrastructure activity to reflect the demand the development is likely to place on types of infrastructure

125. Unit of demand factors are based on the Household Unit Equivalent (HUE) which is the demand generated by a typical residential dwelling. Depending on the nature of the activity, unit of demand factors may be applied are outlined in Schedule 2 of the contributions policy and shown in the table below:

Table 3.6 HUE factors

Factor HUE applied to:	When factor is used
Per Unit	Used for some types of residential development where there is a relationship between number of units and demand for an activity (e.g. between units in retirement village and transport demand).
Per room	Used for residential care homes and student accommodation.
Per set area of Gross Floor Area (GFA)	For residential development, where demand for the activity relates to number of occupants (e.g. transport and reserves). Larger dwellings will be charged more than smaller dwellings, reflecting the fact that larger dwellings tend to have more occupants than smaller ones.
Per set area of Gross Development Area (GDA)	For non-residential development for transport contributions. This reflects the relationship between development size and demand for transport e.g. a mall will generate significantly more traffic movements than a small office unit.
Per set area of Impervious Surface Area (ISA).	For stormwater contributions excluding detached dwelling units. Impervious surface area is used as a reasonable and practical proxy for estimating stormwater demand. Developments with large areas of impervious surface will pay more than those with small amounts of impervious surface.
Per allotment	For subdivisions (residential and non-residential).

3.9 Financial and Other Considerations

126. The methodology set out in the preceding sections is used to develop a draft investment programme. The timing of investment within the draft investment programme is based on the appropriate growth and development triggers for each project. To finalise the draft investment programme, we consider:

- interest gained (on revenue received prior to investment) or incurred (on investment costs incurred prior to revenue being received)
- the availability of council capital expenditure budget over the period of the long-term plan and beyond.
- feedback from the community and the political judgement of the council's elected members

3.9.1 Interest Costs

127. The timing of a project relative to when we receive revenue that will pay for that project impacts on interest the council receives or incurs. Interest gained (on revenue received prior to investment) or incurred (on investment costs incurred prior to revenue being received) flows through to the amount of debt that the council takes on.

128. The council has used its effective interest rate for debt in the near term and long term, as forecast by the Auckland Council's Treasury team, to model the contributions price. This is consistent with the approach used in the long-term plan Interest rates are forecast ahead ten years from the start of the last long-term plan budget. It is assumed rates will remain at the ten-year level for the remainder of the forecast period.

9 December Interest Rates Auckland Council Treasury									
FY25	**FY26**	**FY27**	**FY28**	**FY29**	**FY30**	**FY31**	**FY32**	**FY33**	**FY34**
4.70%	4.70%	4.70%	4.50%	4.40%	4.40%	4.50%	4.50%	4.60%	4.60%

129. Interest rates over time can have a material impact on contributions prices. Our contributions policy is updated at least every three years and the interest rate forecasts will be revised at that time. Interest rates used for setting contributions can be found in the Significant Forecasting Assumption table in the council's Long-term Plan.

3.9.2 Adjusting Contribution Charges over time

130. Contribution charge prices have been calculated on the basis that they will be adjusted annually for the projected movements in the Consumer Price Index (CPI). The calculation of the development contribution charges can be summarised as follows:

    1. The development contribution charge is determined in the DC model and is calculated by activity and funding area
    2. The total cost of capital expenditure to service growth and the finance costs of that capital expenditure, are divided by expected growth (measured in HUEs) to establish the development contribution charge payable in the year that payment is invoiced
        i) capital expenditure includes cost escalation that applies to projects that will be undertaken in the future
        ii) the finance costs are the balance of the interest revenue that council will receive from contribution charges received before incurring capital expenditure on these projects, and the interest costs the council will incur from the time capital expenditure on these projects has been incurred, until the debt that has funded the project has been fully repaid
    3. The development contribution charge payable on invoicing in each financial year set out in the policy that is incremented each financial year by 2%, which is the mid-point of the Reserve Bank of New Zealand's target range for the Consumer Price Index (CPI) as at 2025, is set so that the overall revenue collected over time recovers the costs set out in b above

3.9.3 Council capital expenditure budget

131. The council is facing significant constraints on the level of capital investments it is able to make within the next ten years. The first ten years of the draft investment programme is reviewed against the available capital budgets in the 1 Long-term Plan 2024-2034. Some

projects will then be re-phased from within to outside the 10-year investment programme to ensure that the investment fits within the limits of available capital expenditure. Investment outside the first ten years is also re-phased to ensure there is not a large spike in investment for year 11 of the programme.

3.9.4 Political Consideration

132. Council undertakes public consultation on the Contributions Policy, and the proposed investment programme it contains. This feedback is then considered, and the proposed 30-year investment programme and Contributions Policy are reviewed and revised as appropriate.

133. The decision to agree the 30-year investment programme and adopt a final Contributions Policy is made by the elected members of Auckland Council's governing body. In addition to the advice of council staff, our elected councillors consider a range of issues including:

- feedback from the public, the development community and local boards
- issues of affordability and fairness in the application of charges
- council's broader priorities for both investment and outcomes
- the issues identified in section 101 (3) of the Local Government Act 2002. This requires council to consider:
    a) in relation to each activity to be funded:
        i) the community outcomes to which the activity primarily contributes; and
        ii) the distribution of benefits between the community as a whole, any identifiable part of the community, and individuals; and
        iii) the period in or over which those benefits are expected to occur; and
        iv) the extent to which the actions or inaction of particular individuals or a group contribute to the need to undertake the activity; and
        v) the costs and benefits, including consequences for transparency and accountability, of funding the activity distinctly from other activities; and
    b) the overall impact of any allocation of liability for revenue needs on the current and future social, economic, environmental, and cultural well-being of the community.

Transport investment

4.0 Transport Investment

4.1 Transport planning

134. This section sets out the approach taken for transport investments to:
    - allocate the cost of transport projects between renewals, level of service and growth
    - allocate projects to funding areas
    - determine demand factors for development types.
135. Auckland has seen rapid growth in recent years, which has a significant impact on travel demand and Auckland's transport system. Auckland is home to almost 1.7 million people. This growth has been reflected in population, but also in increased new car registrations, annual vehicle kilometres travelled, and regrettably, in deaths and serious injuries on our roads.
136. Population growth and increase in travel demand have placed significant pressure on Auckland's transport system, leading to congestion, increased travel times, and reduced accessibility to employment, education and other activities.
137. The Auckland Regional Land Transport Plan (RLTP) is the 10-year plan for Auckland's transport network. It details the areas that Auckland Transport, Waka Kotahi NZ Transport Agency and KiwiRail will focus on to respond to Auckland's transport challenges. The challenges outlined in the RLTP include:
    - Access and connectivity: Existing deficiencies in the transport system and an inability to keep pace with increasing travel demand is limiting improved and equitable access to employment and social opportunities
    - Asset management: Reactive maintenance and low levels of investment are impacting the reliability of our transport network
    - Climate change and resilience Emissions and other consequences of transport are harming the environment and contributing to the transport system becoming increasingly susceptible to the impacts of climate change
    - Travel Options: A lack of competitive travel options and high car dependency as the city grows is limiting the ability to achieve the quality compact urban approach for Auckland
    - Safety: The transport system has become increasingly harmful and does not support better health outcomes.
138. The RLTP includes Auckland Transport's funded capital programme (appendix 1 of the RLTP), and Auckland Council's contribution to the City Rail Link which is consistent with the capital programme in the council's Long-term plan. The RLTP also includes the transport programme for Waka Kotahi the NZ Transport Agency (appendix 2), the KiwiRail Infrastructure Capital Programme (appendix 3) and Department of Conservation programme (appendix 4), although these are not subject to development contributions.
139. The RLTP includes significant investment to improve the capacity and functionality of the Auckland transport system. Funded improvements include:
    - public transport (e.g. new bus lanes and electric trains),
    - active transport (e.g. new/extended cycleways and footpaths),

- network capacity and performance (e.g. dynamic lanes and traffic light synchronisation),
- safety (e.g. upgrades to high-risk intersections and routes), and
- corridor improvements.

140. Improvements are designed to work together to deliver a transport system that facilitates Auckland's growth. While some projects provide additional transport capacity specifically targeted to new development (e.g. new and upgraded corridors in growth areas), others provide improved transport choices (e.g. public and active transport) or improved corridors (e.g. safety improvements and upgrades to existing corridors such as Lake Road in Devonport) for the benefit of new and existing Aucklanders.

141. Growth assumptions for the RLTP align with the council's Long-term Plan, which uses AGS23 v1.1.

4.1.1 Project Requirements beyond the RLTP period

142. The DC policy includes investment in transport infrastructure over the next thirty years for the IPA areas of Drury, Red Hills-Westgate-Whenuapai, and the three areas within the Auckland Housing Programme: Māngere, Mount Roskill and Tāmaki. We have undertaken a strategic assessment of the transport infrastructure required to support growth in these areas. You can find the Transport Assessment documents on our website:

IPA Area	Transport Assessment Document Title	Version
Auckland Housing Programme Areas (Māngere, Mount Roskill and Tāmaki)	Auckland Housing Programme Development Contributions Policy – Transport Assessment	12 July 2024
Red Hills-Westgate-Whenuapai	Red Hills, Westgate, and Whenuapai (RWW) Development Contributions Policy – Transport Assessment	26 July 2024
Drury[1]	Drury Development Contributions Policy Transport Assessment	August 2022 Version 0.6
	Drury Infrastructure Funding and Financing (DIFF) – Cost Allowances Report Addendum	27 March 2024
1. The Drury transport investment programme developed in 2022 has been revised for Central Government's funding announcements for its Roads of Significance programmes, see the 2024 addendum report for details		

143. In determining investment for the IPA areas, we have considered the anticipated growth until each area is expected to be fully developed, as set out in section 2.0.

4.2 Transport costing methodology

4.2.1 Land Acquisition

144. Transport projects (new roads, widening roads, etc) typically require contiguous land through multiple properties with limited flexibility on the location of the land required. Land requirements for each transport project are unique and may require full or partial

purchase and temporary leases for construction. This usually requires land to be purchased under the Public Works Act (PWA) resulting in higher transaction costs.

145. Land costs for transport projects have been estimated using the methodology in section 3.1. Transport property cost allowances for the 30-year IPA programme include a 15 per cent contingency for the property valuation and an additional 15 per cent for the uncertainty in the final project design as it relates to elements such as vertical alignments, retaining walls versus embankments, property access and stormwater treatment.

4.2.2 Physical works

146. Construction and development costs include both planning and construction costs associated with an infrastructure project. These costs will depend on the nature of the infrastructure and facilities to be delivered, and the specific characteristics of the land to be developed.

147. Information on the assumptions used for transport cost estimation can be found in the Regional Land Transport Plan, for projects within the 10-year long-term plan period.

148. Costs for projects in our 30-year investment programme for IPA areas are based on projects requirements that have been determined by Indicative Business Case and/or notice of requirement designs where available, or by using generic costing rates based on typical infrastructure designs such as the road cross section shown in the figure below:

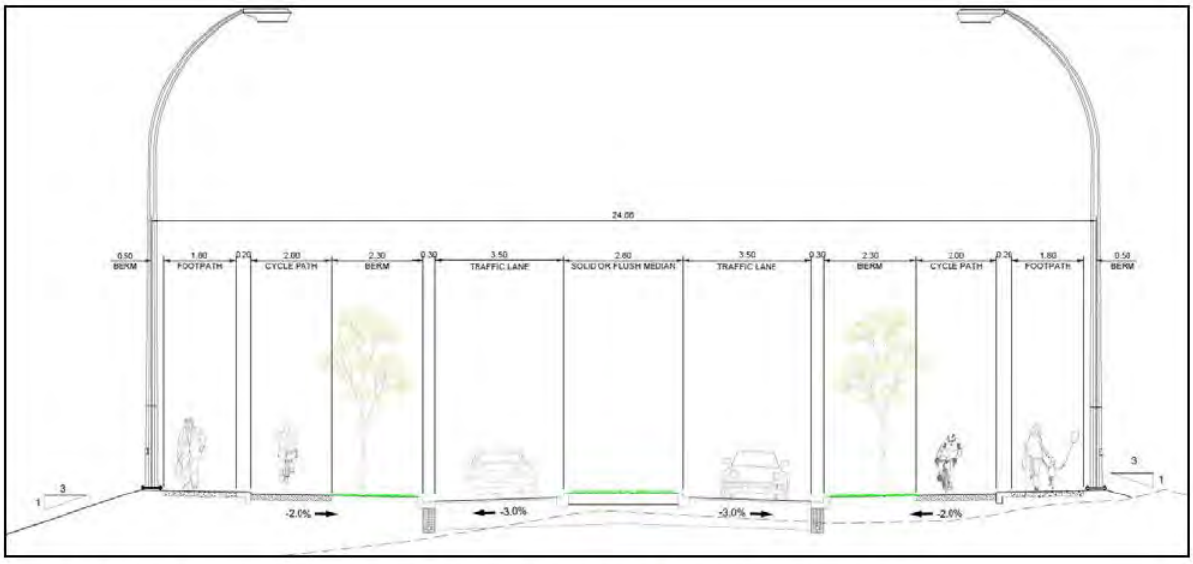


Figure 2-2 Typical Cross Section for Ponga Road included within the Drury Arterial Network DBC

149. These designs provide a reasonable indication of the final project and its various components, though there may be adjustments to elements eg the location of cycle path element relative to the other road elements.

Cost Allowances and Contingencies for Investment Priority Areas (IPA)

150. We have developed a standard costing approach, with generic cost rates, allowances and contingencies for greenfield IPAs (Drury and Inner Northwest) and brownfield IPAs (Māngere, Mount Roskill and Tāmaki). You can find out more about our costing assumptions, allowances and contingencies for these areas in the following documents available on our website.

IPA Area	Transport Assessment Document Title	Version
Auckland Housing Programme Areas (Māngere, Mount Roskill and Tāmaki)	Brownfield Generic Cost Allowances and Rates Assessment	26 July 2024
	Auckland Housing Programme Development Contributions Policy – Footpath Widening Assessment	**3 February 2025**
Drury, Red Hills-Westgate-Whenuapai	Greenfield Generic Cost Allowances and Rates Assessment	26 July 2024
Drury	Active Mode Corridor (Drury Central Station to Drury Station West)	**20 December 2024**

151. Cost allowances and contingency are prepared in accordance with the requirements of Auckland Transport's Cost Estimation Guide, (available online at AT's website). and the New Zealand Transport Agency's Cost Estimation Manual (SM014 which can be found at online at the NZTA website. Generic cost rates have been developed based on experienced judgement from Quantity Surveyors, and Auckland Transport's recent project cost data.
152. Contingency is managed at the programme level for each IPA area. Average contingency rates have been developed by an experienced estimator, in accordance with Auckland Transport's Cost Estimation Guide, and its Contingency Management Policy. These rates have been reviewed by both internal and external experts in cost estimation and risk management.

4.3 Assessing growth share of transport Costs

153. DCs can only be charged for the share of project costs attributable to growth. To determine this share, the council must first exclude any project costs attributable to service level improvements, renewals, developer mitigation or will be funded by third parties external to the council.

4.3.1 Developer mitigation

154. The council sets its contribution charges to recover the growth share of the cost of infrastructure delivered or financed by the council. The council does not always finance all the transport investment required in an area. This is because developers may be required to deliver some transport infrastructure to mitigate the effects of their developments, as a condition of gaining resource consent under the Auckland Unitary Plan (AUP). Developers may also deliver infrastructure as part of a separate Infrastructure Funding Agreement.

4.3.2 Mitigation assumptions for greenfield areas: Drury. Red Hills, Westgate and Whenuapai

155. Drury and RWW areas identified for future urban development in the AUP. As development occurs, part of the conditions of their resource consents developers must deliver the infrastructure needed to mitigate the effects of their developments. This includes upgrading existing rural roads to urban standards and providing new roads and intersections to access developments.
156. We expect developers to deliver all local roads, as well as the majority of collector roads and a share of the frontages (the footpaths, cycle paths, verges and some of the

carriageway) on arterial roads. In some cases, developers will be required to undertake interim upgrades of future arterial roads or intersections, such as upgrading an existing road to a two-lane urban collector standard, with AT completing the upgrade to a four lane arterial at a later stage.

157. The level of mitigation works to be provided by developers in Drury and RWW has been assessed on a project-by-project basis for transport DC cost modelling. The assessment considers private plan changes both agreed and in progress, as well as any known information on developer intentions regarding the timing of development.

4.2.3 Mitigation assumptions for brownfield areas: Māngere, Mount Roskill and Tāmaki

158. The AUP provisions relating to development and subdivision in brownfield urban zoned land currently provide little ability for council to require developers to upgrade the transport network beyond their site.

159. There are some AUP provisions allowing the impacts of vehicle trips from individual developments of greater than 100 households to be assessed in some zones.[2] Such developments are rare as currently each development has to be considered in its own right. We are unable to consider the cumulative effects from multiple developments undertaken by the same developer within a funding area.

160. Plan change 79 would permit the adequacy of the pedestrian network trips serving individual developments greater than 40 households to be considered. Plan change 78 allows the adequacy of the path network adjoining a site to be considered for individual development involving greater than 3 households. Neither of these plan changes is operative yet[3] and submissions opposing the rules have been received. It has been assumed, for the purposes of setting 30-year development contributions, that they will be operative at some point.

161. In addition, mitigation can only be required where development that requires certain types of consent occurs. Some sites will never develop, (e.g. small sites and council reserves) so there will be gaps in the network that will fall to council to complete.

162. Mitigation also can usually only be required where a development happens ahead of, or in conjunction with a growth project. This is because it is largely effects based and effects may not arise if the work to upgrade a road has already been undertaken.

163. In addition, where “local” mitigation happens ahead of a wider ultimate upgrade there is the possibility that they may need to be rebuilt again as part of any wider high impact mid-block projects (e.g. adding cycle lanes). Where such work reconstructs interim upgrades undertaken by developers then the interim upgrades will not lead to any cost savings. For example, a shared path would require removal of a footpath and the later would have no mitigation value but where the footpath was not impacted then mitigation work done ahead of growth project might remain and represent a savings.

164. Given the above, mitigation has been assumed to apply in brownfield areas only to a proportion of footpath upgrades and to some minor safety works. In most cases an individual development will not be large enough to "trigger" the need for an intersection upgrade or traffic calming.

[2] These provisions do not apply for residential THAB zoned land for example.
[3] No appeals were received to the trip generation provisions within the PC79 decision.

165. The low mitigation percentages that have been assessed for Māngere, Mount Roskill and Tāmaki reflects this. In most cases footpaths are only a small percentage of project costs, mitigation typically will only slowly occur with infill, and relatively little will occur ahead of the planned growth projects.

4.3.4 Mitigation and liability for DCs

166. A developer providing mitigation works on part of a road will also pay DCs for any share of the road that is financed by the council. This occurs where some properties along the road won't be developed (such as reserves) or will only be developed after the final road upgrade is required. While the early developer may pay more via mitigation and DCs for their road, they also benefit from the mitigation works provided by other developers on other roads within the funding area.

4.3.5 Risk of transport mitigation forecast

167. The level of infrastructure that is ultimately provided by developers as mitigation depends on the content and conditions of consent applied to individual applicants. Where relevant, these projects may have already been discussed and negotiated through a Plan Change process and associated triggers identified. Experience over time shows that not all of the mitigation infrastructure we expect to be delivered by developers will be provided by them.

168. If projects that the council assumed would be delivered by developers are not, we will need to finance them instead. We will include these additional projects in our contributions policy when we next update the policy. The adjusted contributions will only apply to future consent applications, and not to developers who have already received their consents. We can also only charge for the share of the project that benefits future developers. The part of the project that benefits those early developers must instead be funded by ratepayers.

169. The council is not proposing to finance and deliver all the transport projects. This approach would reduce the risk that the council will under collect contributions for transport projects. However, it would significantly increase the council's capital programme, at a time when we are facing constraints on our level of debt. This would result in delayed delivery of critical projects that would otherwise be delivered earlier by developers, impacting when development can occur. It is likely that many developers will still undertake mitigation works, as a condition of consent or to enable them to progress their developments. In these cases, the council will need to refund the portion of contributions paid by developers for that project or purchase the project from the developer and retain it in the policy. The potential scale of adjustments required under this scenario, and their complexity would result in additional (and unplanned) costs to the council. The policy will be updated to remove any project where a significant council funded project is instead undertaken by others at their cost.

4.3.6 Third Party Funding

170. Any external funding Auckland Council receives for infrastructure projects, such as grants from the National Land Transport Fund administered by Waka Kotahi, must be deducted from the costs to be funded by contributions. This requires us to make assumptions on how much funding will be received in the outer years of our investment programme. Our assumptions are that:

- arterial roads will receive Waka Kotahi Funding Assistance Rate (FAR) of 51 per cent. This means that developer contributions are assumed to only fund 49 per cent of the growth share of arterial road costs
- collector roads will receive 0 per cent FAR as these are not normally funded by Waka Kotahi.

171. Central Government may periodically announce additional funding for projects through its New Zealand Upgrade Programme (NZUP), or other transport programmes. Any announced changes to government funding for Auckland transport will be incorporated into our Contributions Policy as part of the next policy review. An example is the removal of some Drury project costs as a result of the government undertaking some intersection and bridge works on the local network as part of its Roads of Regional significance programme.

4.3.7 Renewals

172. The share of project costs associated with the replacement of existing assets that would otherwise need to be renewed is excluding from the growth share of costs. The renewal share depends on the nature, age and condition of the asset being replaced.

173. The Council's policy outlines its approach to assessing the renewals component of any capital project. Previous assessments, based on a Stantec report, applied a uniform 29.5% renewals to most non-Public Transport projects, and 0% was applied to all Public Transport projects. The current approach is based on an assessment of the likely renewal expenditure that would have been incurred in the absence of a growth-related project. This reflects:

- whether or not a project rebuilds or upgrades existing assets. For example, new roads in a greenfield area will not upgrade any existing asset in which case the renewal percentage will be zero.
- the nature of the existing asset. For example, the costs associated with AT's renewal of a former rural road is only a very small percentage of the costs of it being upgraded to a 4-lane urban arterial.
- the general blended asset life4 of any existing asset being upgraded
- the actual renewal expenditure typically applied. AT's renewal's budgets as approved by Council and NZTA are typically only a fraction of those which would be required based on notional asset lives.
- the likelihood that the timing of any renewal would coincide with that of a new capital project. In practise, renewal expenditure is often reactive and it not possible to defer it for years until a growth project to replace it proceeds.

174. The AC approach reflects a general standard assessment across all projects rather than a fine grained per project of remaining asset lives and costs. The AT input will typically be to assess how a project fits into the above framework

175. For our 30-year investment in IPA areas, a standard approach to assessing renewal share has been developed as part of our generic costing methodologies for greenfield and brownfield areas. These include an assessment of average renewal percentages for each generic project type, based on the life expectancy of the component assets that make up

[4] A road comprises various elements with different lives eg curb and channel 100 years versus seal 10+ years

each project. See our Greenfield and Brownfield Generic Cost Allowances and Rates documents identified in section 4.2.2.

4.3.8 Service level improvements

176. Auckland's transport network is considered to benefit all Aucklanders to the same extent as the network is available to existing Aucklanders as service level improvements and to new Aucklanders as a result of growth. Although growth is a key investment driver, the cost of projects may not be fully attributed to new developments. For example, public transport capacity improvements provide benefits to existing Aucklanders in improved opportunities to shift travel modes. The costs allocated to development for much of the RLTP transport programme are split based on the population growth as a share of future population.

4.3.9 Transport Catchments

177. Establishing transport funding areas and allocating transport projects to them is more complex than for other infrastructure projects. While the transport projects to be delivered in an area are primarily for the benefit of the local area, they will connect to and form part of the regional transport network. The benefits from a transport project may accrue:

- Locally: properties within the local area of the project are provided with new or improved connections within the local area and/or to and from the wider region
- Sub-regionally: neighbouring areas may benefit through the creation of alternative routes reducing traffic movements in another neighbourhood
- Regionally e.g., by creating a new route allowing for more efficient trips through the area to another destination.

178. This means that in order to identify the share of transport investment that benefits growth, we need to consider how the benefit of this investment is shared between:

- Local, sub-regional and regional areas
- Growth and existing development.

4.3.10 Allocating project costs to funding area catchments

179. Transport project costs are allocated to funding area catchments based on the share of benefits each area receives from those projects. Assessing how the benefits of a future project will be shared between local, sub-regional and regional areas is complex, as the scale and timing of benefits for some project elements will be dependent on the timing of other elements in the network.

180. The following types of projects and programmes are considered to have equitable benefits across the region and are therefore allocated to the regional funding area:

- Extensions of the rapid transit network. These provide network capacity and access improvements for the benefit of all Aucklanders. Examples include the purchase of new electric trains and Airport to Botany Rapid Transit Network (including Puhinui bus-rail interchange).
- Projects that increase the capacity of the wider network with equitable benefits across the region. Examples include city centre bus and ferry improvements which provide capacity and access improvements to users across the region.

- Programmes that add capacity or improve the existing network across the region (i.e. infrastructure improvements that are spread geographically across Auckland). An example is the road safety programme.
- In some cases, several related programmes/projects have been grouped together to form a regionally funded programme. An example is park and ride improvements where the RLTP identifies detailed projects for the first few years, with a broader capital investment programme funded in later years.

181. While a significant portion of the infrastructure included in the long-term plan, and which the council intends to deliver beyond this period, serves the region as a whole, there are a number of infrastructure works that can be attributed to a more localised area. Several transport projects benefit a sub-regional part of Auckland (i.e. North, West, Central or South Auckland) while others provide benefit to a smaller more localised area. These decisions are informed by an assessment of the area of benefit using either transport modelling or an assessment of the projects scale and interconnectivity.
182. A simplified approach has been adopted to allocate the share of benefits for IPA transport projects as set out in the following sections. This approach uses judgement of the proportional benefit of each project to the sub-areas being connected by the project, and to the wider network. This judgement-based allocation is informed by previous business case studies as well as the detailed investigation undertaken. Such studies provide insights into the intended purpose and effect of each element, from which the likely beneficiaries can be estimated.

4.3.11 Assessing Causation, Beneficiaries and Growth Share

183. Existing residents contribute to the need for the project if:
    - under our provision metrics, there is service gap for those residents, that will be addressed by the project; and.
    - we would deliver some or all of the project even if there was no growth occurring.
184. Our provision metrics differ between rural and urban areas. Depending on the type of infrastructure, low or no provision of services in rural areas that are planned to become urban areas does not constitute a service gap. For greenfield areas this means that the need for investment is primarily driven by growth.
185. For long-term plan projects and programmes where growth is one of the investment drivers, the allocation of costs between growth and level of service uses one of the following approaches:
    - Projects that have cost allocations from previous policies or legacy councils have had their cost allocations carried forward.
186. As part of their development, some new projects included in the long-term plan have been the subject of project-specific transport modelling, studies and/or calculations. Where available, the results of this analysis are used to arrive at a project-specific cost allocation.
    - For all other projects and programmes that don't have legacy cost allocations or detailed project-specific information available, costs are split based on the population growth or household/employment as a share of future population within the relevant funding area.
187. For our 30-year transport investments it is not feasible to precisely assess the extent to which existing residents benefit from or cause the need for individual transport projects.

This is because our planned transport investment will form part of the network that responds to a number of drivers and delivers a range of benefits.

188. We therefore use a simplified approach to assessing causation and benefit for this investment to allocate between growth and level of service improvements for the existing population. Under this approach, we have treated the existing population and growth population as creating the need for transport investment in the same proportions [or to the same degree] as these groups benefit from that infrastructure.

189. Demand for transport services is driven by a mix of residential and business development. We have assessed the relative transport benefits using a weighted measure of growth based on the expected households over the growth period plus a 0.4 weighting on future employment over the same period. As we have assumed causation equals benefits, the growth share of transport project costs is the growth share of this weighted Household-Employment assessment.

190. A different growth share weighting is used for local safety and footpath upgrades in the Auckland Housing Programme areas. These kinds of local infrastructure projects are delivered as developer mitigation works in greenfield development. In brownfield areas, council currently has limited ability to require developers to provide these upgrades. These projects are provided to mitigate the effects of growth and would not be delivered in the absence of growth. As such, council assesses causation for these projects as being 100 per cent related to growth. However, given the projects do provide some benefits to existing residents the benefit of the projects is also partly shared between growth and existing using the weighted Household-Employment assessment described above.

191. The growth share will differ between catchments, based on the size of the existing population, and the expected growth over the period. We use these growth shares to allocate the share of project costs attributable to growth in the catchment.

4.3.12 Total transport costs for growth in funding areas

192. As set above, the growth share of transport project costs attributable to each funding area is assessed on a project-by-project basis as follows:

$$\text{Growth share of project cost in funding area catchment} =$$
$$(\textit{Projectcost, less any share of cost atributable to renewals, mitigation or thirdparty funding}) \times \textit{S}\text{hare of project benefit within catchment} \times \textit{G}\text{rowth share of project}$$

193. The total growth share of transport in each funding area is therefore the sum of the growth of costs for all the projects allocated to that funding area catchment.

4.4 Demand factors

194. Transport demand factors are calculated using data on the daily volume of trips generated from each development type. Development types generating more trips are charged a higher demand factor.

195. Research is available in New Zealand and overseas for a range of trip generations by different land use types.

196. Adjustments are made to raw trip generation data for non-residential development types for the following reasons:

- weighting to reflect the strongest link to population growth for residential development
- type of trip

- transport scale economies.

4.4.1 Residential development weighting

197. The primary driver of the requirement to provide additional transport infrastructure, is population growth. DCs are charged to development and the strongest connection to population growth is through residential development. Non-residential development creates demand on infrastructure and these developments benefit from regional and sub-regional transport investment. However, given the population growth driver the unit of demand factors for non-residential development are adjusted to reflect the residential origin of the trips. Therefore, a 50 per cent reduction in primary trips is made to non-residential development types.

4.4.2 Trip Type

198. Non-residential development types generate different types of trips with differing impacts on the transport network. Trip generation data identifies different types of trip:
    - non-pass-by trips – direct from one location to the final destination without stopping
    - pass-by trips – has one or more stops before reaching the final destination.
199. Each of the trip generation types places different demand on the need to invest in transport. Pass-by trips to a location are not the principal drivers of demand for transport services but do measure benefit. Raw trip generation data is adjusted proportionately to the share of non-pass-by and pass-by trips made.

4.4.3 Transport Scale Economies

200. Non-residential development is generally much less dispersed than residential development and usually more closely aligned to public transport hubs. Economies of scale are made when providing transport infrastructure for non-residential development. Therefore, a further reduction of 33 per cent is made to non-residential development types for efficient use of the network.

Reserves investment

5.0 Reserves Investment

5.1 Reserves planning

201. Planning for reserves start by forecasting demand for future open space using the following inputs:

- projected growth based on the Auckland Growth Scenario model (AGS23 v1.1), based on the vision for how and where growth will happen over the next 30 years is set out in the Future Development Strategy Policy Statement
- structure plans that identify the nature of development within growth areas.

202. Additional reserve acquisitions planning inputs are:

- the Open Space Provision Policy 2016, which sets provision metrics which guide the type, size and location of reserves required to support growth.
- the requirements of the Parks and Open Space Acquisition Policy 2013, which sets out the process by which the council prioritises and acquires land for parks and open space.
- how much land will cost based on previous expenditure and a projection of future land prices (refer, the Land Development Stage Price Model)

203. Additional reserve development planning inputs are

- local area development plans and/or open space network plans
- how much infrastructure will cost based on a projection of future prices
- local board priorities as set out in individual local board plans.

204. Reserve development is of two broad types:

- development of new open space, generally on land acquired for that purpose in greenfield or large-scale brownfield development areas
- redevelopment of existing open space to support more intensive use that arises from population growth within the relevant catchment.

5.2 Project Requirements

205. The requirement for parks is assessed in accordance with the provision metrics set out in the council's Open Space Provision Policy[5]. These provision metrics identify the:

- amount of land required for different park types
- area to be served for each park type based on a walking distance catchment, with reference to the density of housing to be provided. For greenfield areas such as Drury, a radial distance is used as a proxy for the walking distance catchment.

[5] https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-policies/Pages/open-space-provision-policy.aspx

206. Civic, suburb, sport and neighbourhood parks, and greenway connections provided by council have a share of costs funded by Development Contributions.6 Civic parks are provided in commercial areas (town centres and smaller centres called local centres). Suburb, sport and neighbourhood parks are in residential urban areas.

207. Programme budgets for reserve acquisitions are committed to specific projects over time. The council does not publicly detail its purchasing intentions in advance to preserve its negotiating position. Indicative locations may be found in area structure plans and private plan changes.

5.3 Reserves Cost Estimation

208. For parks we assume that larger sport and mid-sized suburb parks will be acquired earlier in the development cycle than neighbourhood parks, as the former require large land blocks. We apply the relevant dollars per square metre rates for from the Land Development Stage Price model to the phased requirements for park land to be purchased at each stage and use the "super-lots" value estimates for 1000-4000m2 blocks if part of the acquisition is projected at the "sub-divided into urban lots" stage.

5.3.1 Reserve Development Costs for Parks

209. The cost of developing new parks is modelled based on a standard provision of amenities required for each park type. Almost all new park development occurs in greenfield areas. Our modelling is informed by the cost of recent park developments and advice from experienced quantity surveyors, to develop a cost per square meter rate based on the level of amenity to be delivered for each park type. These rates are then multiplied by the total area of each park type to be delivered and phased over time dependent on the type of park and the assumed acquisition timeframe.

210. The costs for upgrading neighbourhood, suburb and civic parks in existing urban areas are modelled several ways. Impending developments in the near term are costed in the Regional Work Programme recently approved. Costs for projects from year four onwards are estimated using needs analysis by parks specialists and local network reviews. Costs provided present a mix of renewals and growth elements. See the following 'Assessing the Growth Share section'.

211. Greenways and connections are an essential open space infrastructure on parks and through neighbourhood connections, and along waterways. While transport provision covers movement of people for the transport system, council also invests in trails for recreation purposes. Committed greenway connection projects are examined for inclusion in the development contribution policy, which the open space provision policy states are those parts not on road corridors and not on riparian margins – thus the project costs for new path sections on council reserves and through greenway connections are considered.

5.3.2 Sports fields

212. The costs to provide sports fields requires some acquisition and development of new sport-parks and upgrading facilities at existing parks for more playing and training time. Sports fields provide for a range of uses, including playing field sports, informal recreation, walking paths, enjoying nature, and playground and exercise trails. The latter of these are considered local amenities and are similarly also provided on neighbourhood and suburb parks. The costs for these local amenities on sport parks are counted as for local parks.

6

213. Sports field use constraints arise for winter football sports due to weather and high participation rates, so while court sports and other sport uses like cricket and hockey also present demands for council provision, the primary constraints and therefore investment relate to playing surfaces, lighting and ancillary facilities like changing rooms for winter sports. The broad modelling assumptions for the winter sport codes reasonably covers investments needed for other sport uses as well.
214. Council operational monitoring records capacity needs and supply variations by 70 local areas, for weekday and weekend winter use. Monitoring shows that adjacent areas and use types can adjust so supply and demand as an Auckland-wide analysis is considered balanced in the most recent analysis.
215. As population grows, more participants place demands for team sport training and competition. Future population growth will express demand for investment in acquisition and development of new parks, and upgrades of lighting, surfaces and changing rooms to accommodate more use per week. As the current state represents balanced supply and demand, almost 100% of new investment is caused by, and provides benefits to new growth.
216. The operational monitoring and future projection of needs by population projects the number of usage hours needed in the next 10 years, and the costs for that. The costs and hours to be provided by planned acquisitions in that time and development of fields in that time is recorded as planned investment in years one to four, and the costs for the region of the remainder to deliver the projected usage hours is appended to the cost projection for years five-10.

5.3.3 Contingency for Parks projects

217. Contingency allowance of 10 per cent is included for reserves development for the costs for specific projects as adopted in the Long-term Plan and associated Regional Parks Work Programme for years 1-4.
218. No contingency allowance is applied to reserves acquisition or reserves development costs for park upgrades beyond the Regional Parks Work Programme (year 5 onwards) or for new park development as costs are projected on an average basis for the network of parks. Any discrepancy between amount of funds collected and final project costs for the network of parks can be managed by adjusting the scope of the final project design, and through choices of about the size and location of parks within the network.

5.4 Assessing Growth Share of Parks Costs

219. The Open Space Provision Policy provides for new parks in greenfield areas (including those in mature development) by zoning density and walking distance for various park types. By definition there is no renewal component, and acquisition of and development these parks is 100% caused by new growth, and the benefits are shared between existing and new residents.
220. In existing urban areas there are very few neighbourhood park gaps and investment is prioritised to optimising existing parks for existing and new residents. If a park acquisition is progressed via naturally occurring opportunities, the cause of the acquisition is not growth but a long-standing gap.
221. Most park development projects in existing urban areas have elements of renewal and growth. Some growth elements are caused by land exchanges, where large scale developers ‘swap’ land with council for better housing development configurations and park access and flow. The development costs for the parts exchanged are considered caused by development.

222. Upgrades could include adding new playgrounds, paths, seating, courts or informal play, or planting where there was none before, or moving from a basic swing set to a “local-sized” or destination-sized playground, or widening or extending the path.

223. In the existing urban AHP areas (Tāmaki, Mt Roskill, and Māngere) many park upgrades are planned and projected to accommodate new growth. The existing level of service and additional amenity was assessed by inspecting park upgrades proposed, and assessing the cost of the upgrade portion, against collective costs for each area provided by park specialists. Whole upgrades like court surfacing are invariably renewal, the average for investments with a mix of renewal and growth found the existing service portion was between 25-35%, hence 30% was applied to the overall investment projected for each AHP area, and 70% caused by new growth

224. The council prefers purchasing of land rather than contributions in-kind in lieu of development contributions, where purchase price is based on a willing-buyer/willing-seller arrangement for best use of land at the applicable land development stage. The provision policy expects this arrangement will ensure the land meets the ideal configuration and location.

225. Council also does not have any expectation of third-party funding for reserve acquisition or development. As such, no allowance is made for developer mitigation works or third-party funding, except where historic agreements exist. Aside from riparian margins vested under the RMA or any Infrastructure Funding Agreement arrangements, developers may offer additional input to provide paths, small parks or other local amenity. While not a substitute for development contributions, these are assessed by Local Boards for network alignment and ongoing maintenance commitments.

5.4.1 Reserve costs allocation to Funding Areas

226. The council uses the catchment areas (walking distance) identified in the Open Space Provision Policy 2016 to determine area of benefit. Catchments will vary depending on the type of park. Projects are allocated to funding areas as described earlier in this document, balancing the differentiation of costs and benefits across the funding area, so costs and benefits are fairly shared and the number of funding areas is simple for payers to understand and for council to administer.

227. Reserves are allocated to funding areas for acquisition and development as follows:

- Regional funding areas: sports fields
- Local funding areas: Civic, Suburb, Neighbourhood parks, Greenways

228. In practice this means there are separate local funding areas for Red Hills, Whenuapai, Scott Point, but Riverhead/Huapai/Kumeu are combined as one.

229. New funding areas for Mt Roskill, Tāmaki and Māngere focus costs and benefits on those areas for which higher investment is projected, also in greenfield areas like Warkworth, Dairy Flat/Hibiscus, Drury, Hingaia, Takaanini, and Pukekohe and outlying areas on the coasts as large collective funding areas.

230. Development across other areas considered maturing development in Flat Bush, hotspots on the North Shore and incremental investment recognising growth and renewal in other urban areas.

5.4.2 Demand factors

231. The council’s level of service for open space is based on providing Auckland residents with easy access to parks. Residential developments differ in terms of their occupancy and hence potential demand for and benefit from parks. Residential development types have been

determined based on average occupancy for different types and size of development e.g. detached dwelling or apartment.

232. Residential development types are charged for reserves based on their occupancy relative to the occupancy of a detached residential dwelling of between 100m2 and 249m2. The average occupancy of a detached residential dwelling unit of between 100m2 and 249m2 is 3.1 falling to 2.7 by 2050. Other development types have lower average occupancies and have unit of demand factors set at lower levels e.g. apartments of between 100m2 and 249m2 have a unit of demand set at 0.75 of the charge for detached residential dwelling of the same size. This analysis was informed by dwelling size and occupancy rates obtained from Statistics New Zealand.
233. New parks and open space are not provided by the council in areas that are purely commercial in nature e.g. industrial parks.

Community spaces investment

6.0 Community spaces Investment

6.1 Community spaces planning

234. Planning for community spaces starts by forecasting the future demand for community infrastructure. This forecast is developed using the following inputs:
    - projected growth based on the Auckland Growth Scenario model (AGS23 v1.1), based on the vision for how and where growth will happen over the next 30 years is set out in the Future Development Strategy Policy Statement
    - structure plans that identify the nature of development within growth areas
    - how much infrastructure will cost based on a projection of future prices based off knowledge of recent projects
    - Needs assessments and business cases
    - local board priorities as set out in individual local board plans.

6.2 Project Requirements

235. The requirement for community facility provision is assessed by applying the available provision metrics identified in the council's Community Facility Network Plan[7], for network needs analysis Assessments progress from indicative business case, detailed business case, and then when approved, to design stages.

236. Near term projects are at the latter stages, so in-progress costs are applied.

237. At the other end of the investment horizon projects may be indicated to begin in 20 years to provide for a need emerging from new growth. The need for these projects may have been indicated, with a study to be re-done closer to the time. These projects are quantified in this long-term capital programme for the first time.

238. Between the near-term detailed project plans, and the outyears of the investment horizon are projects with business cases or needs analyses that are expected to progress from 'indicative' to 'detailed'. Updated business cases will apply new information about any changes to specifications, costs to build, and timing, so budgets can be allocated or revised in the next Long-term Plan.

239. The Community Facility Network Plan (provision policy) identifies the need for the different kinds of community facilities based on population thresholds within a specific catchment area being met, with the need for different community spaces based on walking and driving distances.

6.2.1 Libraries and Community Centre specification

240. The Community Provision Network Plan expects 41 m2 of library floor area per 1,000 people within the catchment. In practice libraries are expected to be developed near applicable civic centres and co-located with community centre spaces. A combined building has dedicated library spaces and community spaces and much shared areas like foyers, generic storage, public toilets, café and informal gathering spaces. Recent projects provide these inputs:

[7] https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-plans-strategies/topic-based-plans-strategies/community-social-development-plans/docscommunityfacilities/community-facilities-network-plan.pdf

- Sub-regional networks of established libraries in the urban area are observed to have more than 1200 people per 41m2 of space, so new libraries were estimated by size at this smaller size (for smaller investment per population increase)
- Dedicated library floor, collections, library office space comprises 62.5% and community spaces like creative rooms, community service rooms, creative storage, halls and meeting rooms 37.5%, as applied to the 1200 people per 41m2 library metric.

6.2.2 Aquatic and recreation centre specification

241. Unlike libraries, the Community Provision Network Plan (provision policy) describes a local space and larger "destination" space for different population capacities.

242. The policy indicates for a 5km catchment area a:

- standard 500m2 pool as part of a local pool complex for 35,000 people
- 500m2 pool and as teaching and leisure pool areas to service 35-50,000 people.

243. It further describes a destination pool that people will travel further to reach, with additional leisure functions like deep water, diving, slides, splash areas that will take usage loads off a standard lane pool. It expects catchments for this to be 10km travel, so allowing for route constraints, about three-times larger than the local pool.

244. The policy also specifies fitness and courts co-located with aquatic spaces. While the provision policy finds a metric considered elsewhere for one court for a small population like 9,000 people, it also expects private provision, such as schools to contribute. For specifications included in the cost projection two courts are expected for each of the four projects included, being Northwest, Whau, Flat Bush, and Drury.

245. The council's aquatic demand analysis also supports the notion that a local pool has a capacity of 50,000. A breakdown from relative specifications elsewhere suggests the gross floor area for a facility of this size would be 4,770 m2. Smaller catchments for Flatbush and Drury denote the need for "local" aquatic and recreation spaces.

246. The 2020 indicative business case for the Northwest aquatic project describes a destination pool specification of 5920m2 for a catchment of 150,000. A similar size is specified in the 2017 case for the Whau, and overlapping catchment analysis (including the 'at-capacity' Mt Albert) indicates a 150,000 population catchment for this.

6.3 Community Spaces Cost Estimation

6.3.1 Land acquisition costs for community spaces

247. For our community spaces we have followed a similar approach as for a suburban park, using the assumption of either a library-community centre, or an aquatic-recreation centre. Analysis of recent and established projects provided floor area and footprint ratios, to site size. We apply the relevant dollars per square metre rates for super-lots from the Land Development Stage Price model to the requirements for park land to be purchased at each stage. As the size of land required and strategic positioning of the facility is similar to a suburb park the land acquisition phasing profile adopted is as for a suburb park.

248. Each of the nine projects in the cost projection has project specific assumptions about size of site based on the above ratios, timing and phasing depending on project funding timing, or development timing for new areas like Drury. The Whau Library (Te Hono) will be built in a new location but replaces the existing Avondale Library/Community Centre, and two Flatbush

projects and Tāmaki projects are assumed to be developed on named sites – so no land acquisition costs assumed.

249. Land is planned to be acquired for the other projects (Whau aquatic, Northwest aquatic, Whenuapai Library/Community Centre, and two Drury spaces. While council may ultimately choose to site some of these facilities within existing reserves, additional land will still be required to substitute for the repurposed land area.

6.3.2 Construction costs for community spaces

250. Similar to reserves, construction costs for community spaces are estimated based on standard construction cost per square metre rate for facility type multiplied by the floor area for the facility type to be delivered. The construction rates we use include building works, infrastructure services, and hard and soft landscaping works, professional fees, internal client, consents, and furniture. The costs for community spaces projected are updated for benchmark rates based on recent projects.

6.3.3 Contingency for community spaces projects

251. The timing, phasing, and appropriate level of contingency are informed by recent projects. As community spaces projects describe a specific build and location to achieve a defined purpose it is appropriate to apply contingency.

252. Four of nine projects in the cost projection have substantive budgets allocated in the Long-term plan (including contingency). Budgets for these projects include contingency, as appropriate for the design stage of each project. The remaining five projects apply a 15 per cent contingency as part of the assumed cost per square metre for the builds.

6.4 Assessing growth share of community spaces costs

253. DCs can only be charged for the share of project costs attributable to growth. To determine this share, the council must first exclude any project costs attributable to renewals, developer mitigation works or third-party funding.

254. The swimming pool and leisure centre spaces included in the contributions charges are generally new facilities and not replacing existing facilities. As such there is no renewal component associated with the provision of these facilities.

255. There is no mechanism for any share of community space costs to be delivered though developer mitigations. The council also does not have any expectation of third-party funding for these facilities. As such, no allowance is made for developer mitigation works or third-party funding for parks project costs.

256. Existing residents contribute to the need for the project if:

- under our provision metrics[8], there is service gap for those residents, that will be addressed by the project and.
- we would deliver some or all of the project even if there was no growth occurring.

257. Our provision metrics differ between facility type, and between rural and urban areas. Depending on the type of infrastructure, low or no provision of services in rural areas does not constitute a service gap. For greenfield areas this means that the need for investment is primarily driven by growth. For example, Drury's current population does not meet the trigger point for an aquatic/recreation facility. As such causation for the aquatic/recreation facility is attributed 100 per cent growth. Our provision standards do recognise a service gap for a

[8] See our Community Facility Network Plan

community centre/library so in this case causation is apportioned between the existing and future growth populations.

258. Even if the existing population does not contribute to the need for the project, they receive the benefit of any increased level of service the project provides to them. We assess the share of benefits attributable to existing residents as the proportion of the population within the catchment for the project at the start of the benefit period compared to the population in the same catchment at the end of the benefit period. Conversely, the share of benefit attributable to growth is the proportion of the growth population to the population at the end of the benefit period.

259. The assess the total share of benefit attributable to growth ("the growth share") by adding together the growth shares causation and benefit and dividing by two. Once we have the total growth share by catchment, we can apply the applicable percentage to projects within that catchment.

260. Table 6.4.1 shows the assessed causation and benefit shares for the existing and growth populations, and the overall growth share for community infrastructure projects included in the 30-year investment programme. Causation and benefit shares can differ for different types of infrastructure within the same area. This reflects differences in service level provisions standards and catchment areas for different facility types.

Table 6.4.1 Causation, Benefit and Growth share of community infrastructure investment

Facility	Causation		Benefit		Overall Growth Share
	Existing Share	Growth Share	Existing Share	Growth Share	
Te Hono (Whau Library/Community centre)	78.0%	22.0%	81.2%	18.8%	20.4%
Whau Aquatic/Recreation centre	74.0%	26.0%	74.0%	26.0%	26.0%
Flatbush Library/Community centre	80.5%	19.5%	80.5%	19.5%	19.5%
Flatbush Aquatic/Recreation centre	80.5%	23.9%	80.5%	19.5%	21.7%
Drury Aquatic/Recreation centre	0.0%	100.0%	10.9%	89.1%	94.6%
Drury Library/Community centre	13.5%	86.5%	9.2%	90.8%	88.7%
Northwest Aquatic/Recreation centre	47.7%	52.3%	47.7%	52.3%	52.3%
Whenuapai Library/Community centre	52.1%	47.9%	43.6%	56.4%	52.1%
Tāmaki-Panmure Library/Community centre	75.8%	24.2%	60.0%	40.0%	32.1%

6.4.1 Community Spaces allocation to funding areas

261. Costs for pool, leisure and community centres are allocated to the sub-regional community spaces funding area. Libraries are allocated to the regional funding area This funding area matches the catchment used for the need/ beneficiary analysis set above.

6.4.2 Unit of demand factors

262. Units of demand for community infrastructure are set on the same basis as reserves acquisition. Residential developments differ in terms of their occupancy and therefore the potential demand for and benefit from community spaces. Residential development types have

been determined based on average occupancy for different types and size of development e.g. detached dwelling or apartment.

263. Non-residential developments are not charged for community infrastructure.

Stormwater investment

7.0 Stormwater investment

7.1 Stormwater planning

264. Understanding future needs for stormwater investment means understanding:

- Impacts of change in climate and rainfall patterns,
- Changes in land use, both current and anticipated,
- The current condition of existing assets and the function of those assets into the future
- Hydrological features of a catchment
- The amount and form of growth anticipate in an area.

265. All of these factors influence the extent of stormwater effects and what interventions and infrastructure is required to mitigate these effects.

266. The impacts of growth on stormwater are:

- Conveyance impacts both on the primary network and secondary network
- A potential increase in flooding
- Water quality impacts
- Erosion of streams and waterways as more stormwater runoff is diverted to streams.

267. Forecasting is used to estimate analyse the cost of future infrastructure requirements for the LTP and for longer term planning in the Asset Management Plan and Development Contribution policy. This forecast is developed using the following inputs:

- projected growth based on the Auckland Growth Scenario 2023 v1.1
- where growth will occur based on the Future Development Strategy 2023-2053, , 30-Year Infrastructure Strategy and the National Policy Statement on Urban Development 2020 (NPS-UD)
- resulting increase in impervious surface area – a key driver for stormwater infrastructure.
- catchment management and stormwater management plans.
- costing methodology for future infrastructure prices based on historic trends, current costs for materials and construction costs and the topographical and environmental (i.e. flooding and geology) nature of growth areas

268. Stormwater modelling is used in catchment management and asset management planning. These plans outline available capacity on the existing networks, the location and magnitude of future critical investments to meet the needs of growth and renewals. Planning includes developing network models, and for greenfield areas, and preparing baseline stream survey reports for catchments that discharge into Consolidated Receiving Environments. The plans and models help identify existing and future issues in these catchments and provide a consistent baseline for development proposals to be assessed.

7.1.1 Greenfield planning

269. In a greenfield environment there is no existing comprehensive public stormwater network, so the stormwater pipe network is typically constructed by the developer at the time of development. This means the vast bulk of infrastructure needed over 30 years is done as developer mitigation.

270. Greenfield development has features that make it significantly easier to identify and plan for future stormwater needs including:

- An estimation of the future upstream land that may be developed based on the Rural Urban Boundary and Future Development Strategy;
- Knowledge of the catchment constraints and hydrological features that will impact on stormwater network and infrastructure design;
- Intentional higher density zoning with subdivision consents often exceeding zoning rule levels of impervious surface area.

271. This planned for high density reduces the risk that infrastructure designed and installed for the developments will not be adequate for the future as the impervious surface area of the new developments will be closer to what could be expected to be the practicable maximum impervious surface area over time.

272. In limited situations stormwater infrastructure may best be supplied by council is where there is a cumulative effect of land development on flood management and a catchment scale intervention is needed.

273. The general approach to identifying projects is set out in the Figure below. The assumption is that floodplains won't be built on in greenfield areas so retain their flood management function but that hydraulic structures influence conveyance and could create flooding effects.

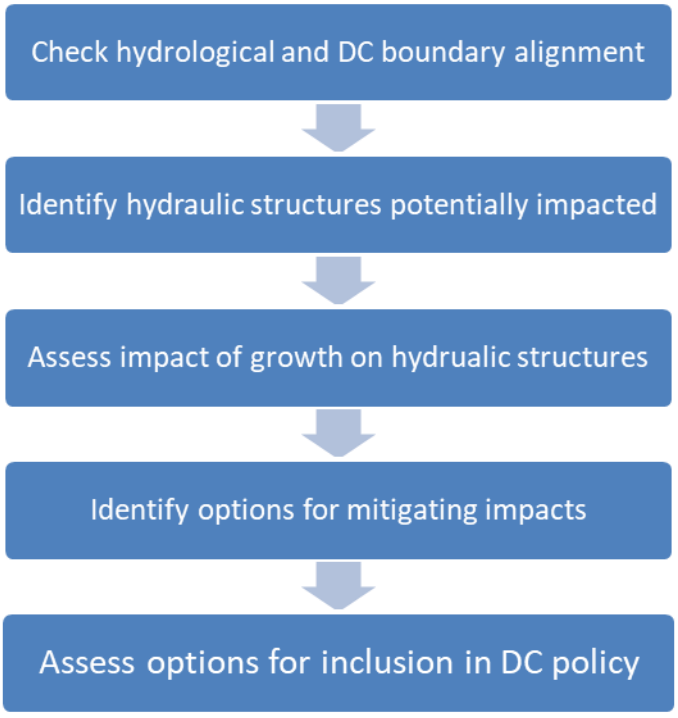


Figure 7.1: Greenfield stormwater project identification process

7.1.2 Brownfield planning

274. Key assumptions for a future growth scenario need to be agreed before stormwater infrastructure needs can be identified. The key assumptions are:

- 90% Impervious Surface Area would be reached in a full build out scenario. This reflects the current trend of very high levels of impervious area in townhouse style developments and a general trend of increasing impervious area as lot sizes decrease.
- Climate change allowance of 2.1 degrees by 2090 used for the primary network design.

- No increase in habitable floor flooding in a 10-year storm event.
- No meaningful onsite developer mitigation. While the planning framework encourages management of effects onsite it is difficult to achieve this on small sites and would not fully mitigate the cumulative effects of intensification in a catchment.

275. The assumption of no increase in habitable floor flooding is used as the number of habitable floors flooded in a rainfall event is a key performance measure of the stormwater network that councils are required to report on to the Department of Internal Affairs.

276. These assumptions were used to determine the impact of increased impervious area on conveyance and flooding and subsequent effects on water quality and stream erosion.

277. In brownfield areas, catchment scale projects like wetlands and daylighting of streams have been identified through analysis of catchment needs which are stated in catchment management plans.

7.1.3 Tāmaki Pipe Network

278. To date, Auckland Council has not systematically upgraded the piped stormwater network in a brownfield catchment to enable growth. The Tāmaki Auckland Housing Programme area is the first catchment where this has been proposed to be undertaken, and to be included in the Contributions Policy. To enable this work, council has developed a separate Brownfields Stormwater Methodology document. This document sets out our approach to:

- assessing stormwater infrastructure requirements for Tāmaki
- costing this infrastructure
- allocating costs between renewals, growth and level of service.

7.2 Cost estimation and contingency

279. Guidance on council's approach to cost estimation for healthy waters projects can be found in "Healthy Waters' Project Cost Estimation Manual September 2024."

280. The costing methodology allows for a greater level of uncertainty that impact final cost such as changes in design requirements, construction methodology, traffic management and reinstatement costs.

281. The standard cost assumptions are adjusted to reflect the variances in the cost of stormwater provision in different funding areas. The key factors that influence costs are:

- the geotechnical nature of the area
- susceptibility to flooding
- land prices and the fragmentation of land ownership.
- For pipe network projects the following assumptions were made t:
- all pipes installed by open cut/trenching method
- all reinstatement in the road carriageway
- number of manholes assumed based on length of asset (information provided by the council)
- cover on the pipe set at 1 metre (information provided by Council)
- manhole depth generally considered to be 2 metres (information provided by the council).

282. The costing model uses known costs from suppliers and subcontractors in the Auckland area, as well as industry production rates and overheads costs to provide the direct works cost for pipe upgrades and extensions.

283. The estimates are calculated using known historic rates from similar projects, or by building up the costs using first principles. The cost build-up calculates the direct works cost as above in the pipe network estimates, but the following variables are specifically addressed based on the location, size and scope of the project.
    - Preliminary and General
    - Traffic management
    - Temporary Works
    - Service protection and relocation
    - Contractors risk
    - Time related On-site overheads
    - Off-site overheads & Profit
284. The above items are calculated by estimating the individual components within each category, or by applying them as a percentage of the physical works cost.
285. The physical works component of the estimate is calculated as accurately as possible from the provided information and categorised into a relevant sub-category of the estimate. These sub-categories could include, but not be limited to Stormwater works, Earthworks, Landscaping and Structures.
286. The internal fee costs and contingencies applied adhere to the Healthy Water's cost estimation manual and falling within the recommended ranges. Where necessary additional costs will be added to the internal fee projected cost for items such as land purchase.
287. The P50 expected estimate is the sum of the direct works cost, internal fees and contingency. The P50 expected estimate is the value that is provided to Auckland Council for the Long-Term Plan.
288. The approach council has taken to assessing costs for the Tāmaki pipe network can be found in our Brownfield Stormwater Methodology document.
289. Costs for stormwater projects are escalated in accordance with section 3.3 of this document.

7.3 Cost allocation between renewal, level of service and growth

290. The investment proposed for Tāmaki is triggered by growth but will also provide benefits to the existing population. On this basis we have assumed that 100 per cent of the need for the project is caused by growth. However, we recognise that there are some existing assets that will be altered in response to growth and these will have a renewal component to them. The existing community may also benefit from the projects and this is accounted for in a level of service. More detail on how this is done is described below. Development contributions are only charged on the new growth component.

7.3.1 Renewals

291. Auckland Council's renewal policy for the stormwater pipe network depends on the criticality of the pipe and its condition. A pipe deterioration model is used to estimate the percentage of pipe network that will need renewing over different time forecasts. This model uses the age and material of the pipe information as well as any condition assessment of the pipe which may have been done through operational works. The model is updated annually and is audited by Audit New Zealand.

292. Auckland Council proactively monitors the condition of critical pipe assets (criticality 4 and 5). Critical pipes in poor condition (condition rating 4 and 5) are replaced within five to 10 years of inspection. Critical assets with a condition rating less than 4 are in good condition and should not fail within the near term.

293. Assets with medium or low criticality (criticality less than 3) are replaced when they fail (run to failure mode) unless their performance endangers public health and safety (e.g., habitable floor flooding, road obstruction, etc).

294. A renewal share is considered when an existing asset is replaced. Renewal share is assessed on the basis of a like for like replacement.

Renewal Share for the Tāmaki 30-year investment programme

295. For our 30-year investment in Tāmaki, a standard approach to assessing renewal share has been developed as part of our generic costing methodology for brownfield areas. These include an assessment of average renewal percentages for the Tāmaki catchment. See Auckland Council's Brownfield Stormwater Methodology document.

Renewal Share for the Long-term plan 10-year investment programme

296. The Healthy Waters capex programmes in the Long-term plan include both larger specified projects and programmes that cover a range of smaller projects. Renewal share for specified projects is assessed on a project-by-project basis and reflect the criticality and condition of any assets being replaced. For Healthy Water programmes in the 10-Year budget period, the renewal share depends on the nature of assets within the programme and is assessed on the average split of renewal for historic programmes.

7.3.2 Level of Service and Growth Allocation

297. In stormwater Level of Service improvements refers to:

- risk reduction to habitable floor flooding
- a reduction in floodplain extent
- an improvement in public safety from impacts of stormwater
- resilience to climate change
- environmental improvements such as water quality and stream health
- Amenity additions to a project.

298. These level of service improvements benefit the existing community hence why it is described as level of service improvement.

299. Growth created by the existing community is called inherent growth and results from modifications to existing homes and lots and not through subdivision or the creation of new dwellings. For stormwater this would be an increase in impervious surface area in the form of paved surfaces, sheds etc added to existing lots by homeowners. The impact of this form of growth is captured in the allocation of cost to Level of Service improvements and the existing community has both contributed to the need for and derive a benefit from the projects. Development Contributions are not charged for this form of growth.

300. The creation of new buildings and impervious surface area through the intensification and redevelopment of existing brownfield land is new growth and this is the form of growth that is captured and charged through a Development Contribution policy.

301. Level of service and growth shares for specified projects in the Healthy Waters capex programmes in the Long-term plan are assessed on a project-by-project basis. Factors that influence the allocation of include:
    - The extent to which growth has altered the need for the asset, for example renewing a water quality treatment wetland may need to be done sooner and enlarged in response to growth in the catchment.
    - Improvements to the asset in response to existing issues in the catchment, for example, if there is a reduction in risk of habitable floor flooding.
    - Anticipated programme of renewals and rates of change in the catchment.
302. As these factors vary considerably for each of the catchment wide projects there is variance in the proportion of cost assigned to renewals, growth and level of service improvements.
303. For information on our approach to assessing and allocating costs to growth and level of service in Tāmaki, see our Brownfield Stormwater Methodology document.

7.4 Allocation of projects to funding areas

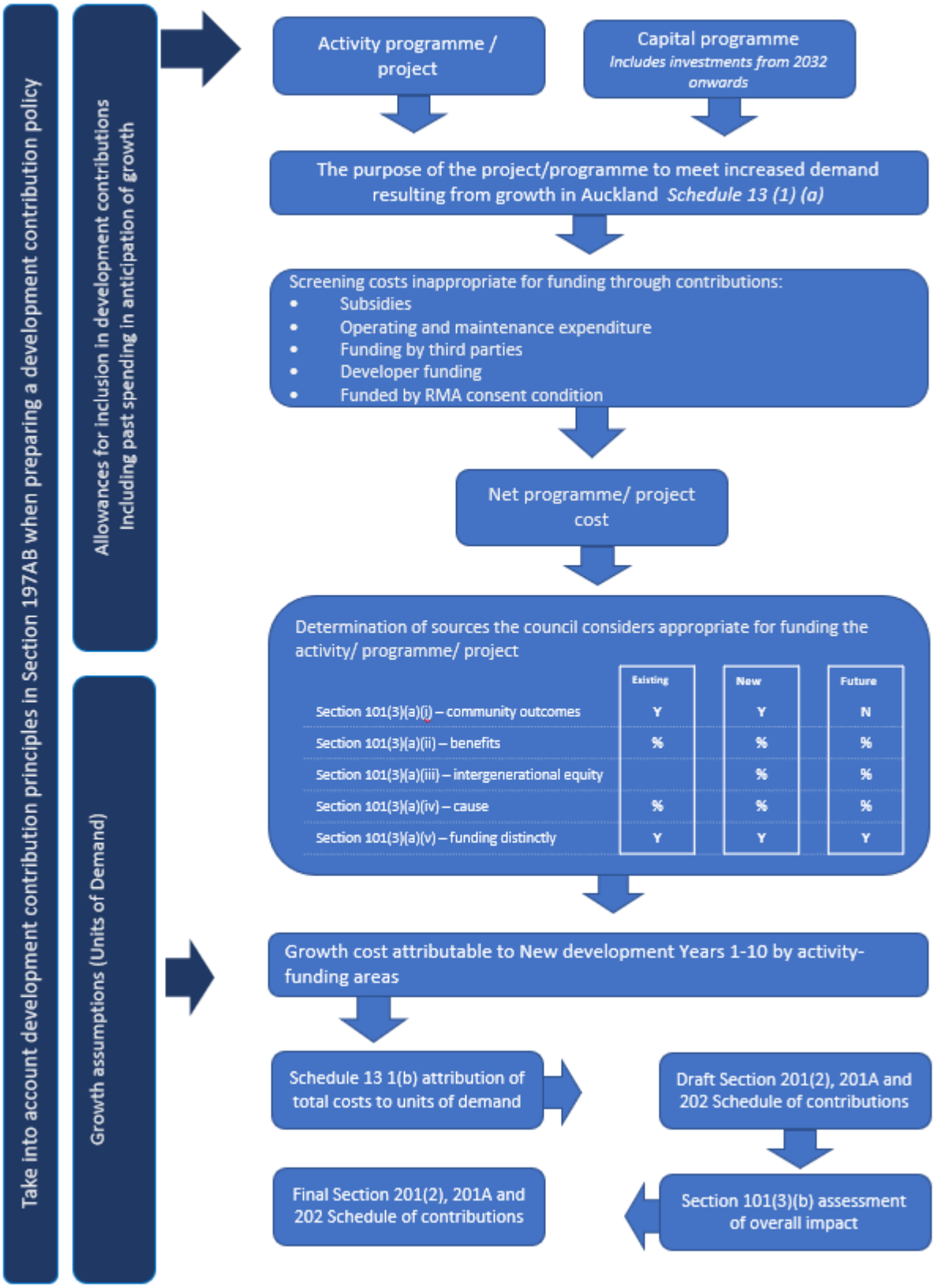
304. The sub-regional stormwater areas fall within urban Auckland area. Urban Auckland programmes are mainly catchment planning activities used to support decisions on investment in the stormwater network or to fund Infrastructure Funding Agreements with developers and other agencies that may deliver these works on the council's behalf.
305. Local funding areas are based around stormwater hydrological catchments that link areas that generate stormwater with the areas that receive the run-off. This ensures that the costs can be equitably shared between those that generate the demand, and those that receive the benefit of the infrastructure through reductions in flooding.

7.5 Unit of demand factors

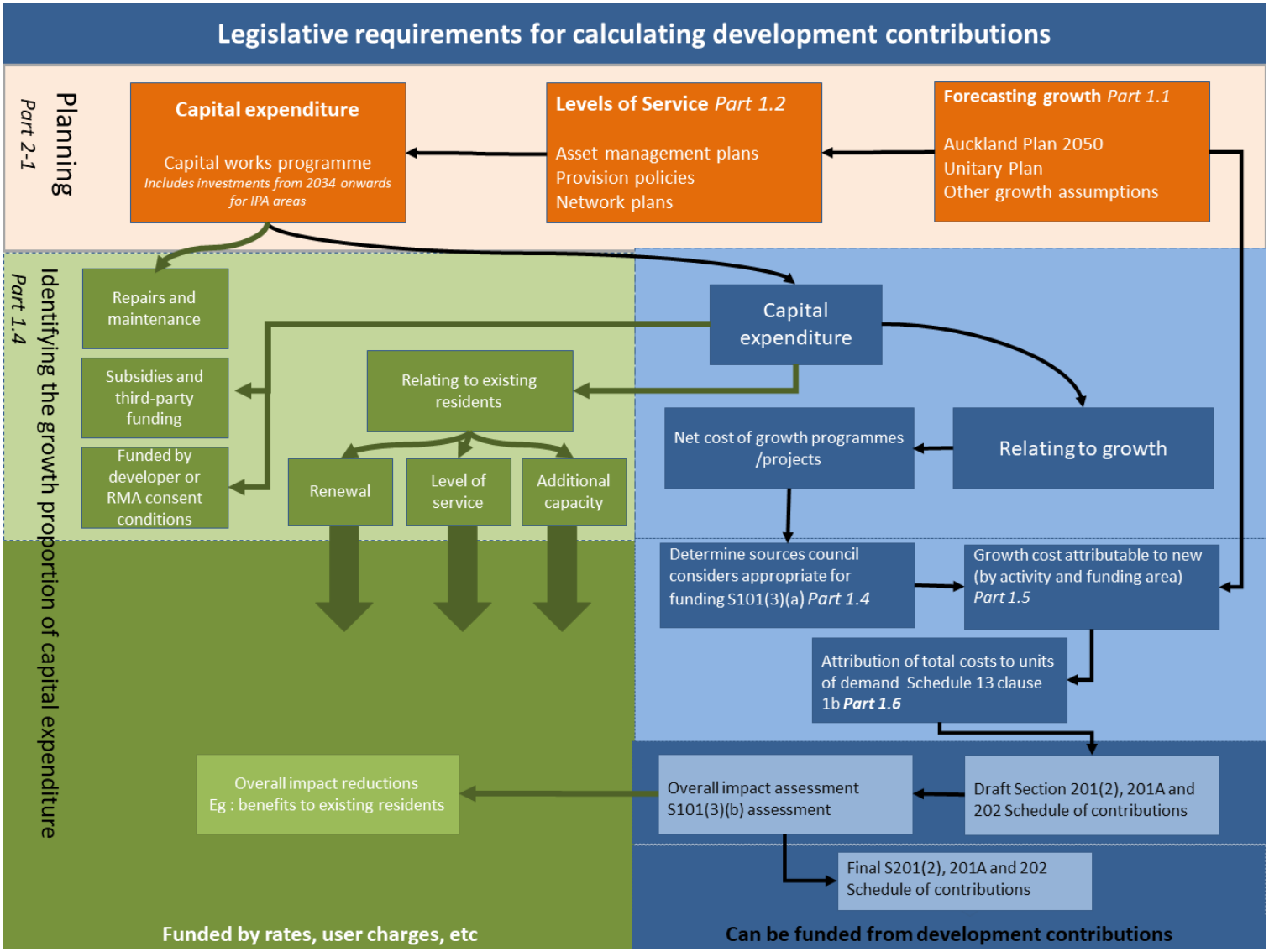
306. Stormwater management is a critical component of urban development, ensuring that rainfall runoff is effectively managed to reduce flooding, protect waterways, and maintain infrastructure performance. As urban areas grow and change, so too does the demand on stormwater systems. To fairly distribute the costs of expanding and maintaining this infrastructure, a development contribution policy is used to allocate funding based on the impact of new developments.
307. A key factor influencing stormwater demand is the extent of impervious surfaces—such as rooftops, driveways, and paved areas—which prevent natural infiltration and increase runoff. While many other factors also contribute to stormwater demand, including soil type, compaction, landscaping, buildings, vehicle movements, and land use activities, developing an individual demand model for each site would be impractical due to the complexity and variability of urban development.
308. Instead, impervious surface area serves as a reasonable and practical proxy for estimating demand. Though not an absolute measure, it provides a consistent basis for assessing contributions. To ensure fairness and efficiency, demand calculations are based on average imperviousness across entire catchments rather than bespoke assessments for each site. This approach balances simplicity with equity, enabling effective infrastructure planning while recognizing the diverse nature of development patterns.

309. For residential development an average approach is used. An average dwelling of between 100m2 and 249m2 gross floor area is assumed to, on average, create 292m2 of impervious surface area (ISA), based on legacy council average values.
310. All other developments are charged based on the actual ISA to be created. Any increase in impervious surface area will generate the same/ or similar water flows irrespective of the development type. The charge is converted to HUEs for the funding area based on how many HUEs of ISA will be created.

Appendix 1: Legislative requirements for calculating development contributions



Appendix 2: Growth Components – Funding Tools



Appendix 3: Statutory requirements for calculating development contribution

Section reference LGA 2002	Content	Consideration required/ Result	References in this document	Reference – Policy
Section 101(3)	***Financial management*** *(3) The funding needs of the local authority must be met from those sources that the local authority determines to be appropriate, following consideration of,—* *(a) in relation to each activity to be funded,—* *(i) the community outcomes to which the activity primarily contributes; and* *(ii) the distribution of benefits between the community as a whole, any identifiable part of the community, and individuals; and* *(iii) the period in or over which those benefits are expected to occur; and* *(iv) the extent to which the actions or inaction of particular individuals or a group contribute to the need to undertake the activity; and* *(v) the costs and benefits, including consequences for transparency and accountability, of funding the activity distinctly from other activities; and* *(b) the overall impact of any allocation of liability for revenue needs on the current and future social, economic, environmental, and cultural well-being of the community.*	Sets out five considerations to be used when determining whether development contributions are an appropriate source of funding for each activity: • community outcomes • distribution of benefit • period over which benefits occur • cause • costs and benefits of funding distinctly Consideration of overall impact of any allocation of liability for revenue needs on the current and future social, economic, environmental and cultural well-being of the community when determining whether development contributions are an appropriate source of funding for each activity. These considerations assist in determining activities which can be funded by development contributions and the funding areas that will apply to each activity. After making its cost allocation considerations under Section 101(3)(a) the council may deem it appropriate to shift the resulting cost allocation burden to address wider impacts on the community.	Paragraphs 110 Sections 2.1, 3.6, 4.1, 5.1, 6.1, 7.1	Schedule 5
Section 102 (3A)	***Funding and financial policies*** *The following policies must also support the principles set out in the Preamble to Te Ture Whenua Māori Act 1993:* *The revenue and financing policy, the policy on development contributions or financial contributions, and*	The council must consider how its contributions policy, along with its other funding and financial policies, supports the principles set out in the Preamble to Te Ture Whenua Māori Act 1993.		20, Attachment A

Section reference LGA 2002	Content	Consideration required/ Result	References in this document	Reference – Policy
	the policy on the remission and postponement of rates on Māori freehold land adopted under subsection (1). *Any rates remissions policy or rates postponement policy adopted under subsection (3).*			
Section 106(2)	***Policy on development contributions or financial contributions*** *(2) A policy adopted under section 102(1) must, in relation to the purposes for which development contributions or financial contributions may be required, -* *(a) summarise and explain the total cost of capital expenditure identified in the long-term plan, or identified under clause 1(2) of Schedule 13 that the local authority expects to incur to meet the increased demand for community facilities resulting from growth; and* *(b) state the proportion of that total cost of capital expenditure that will be funded by—* *i. development contributions:* *ii. financial contributions:* *iii. other sources of funding; and* *(c) explain, in terms of the matters required to be considered under section 101(3), why the local authority has determined to use these funding sources to meet the expected total cost of capital expenditure referred to in paragraph (a); and* *(d) identify separately each activity or group of activities for which a development contribution or a financial contribution will be required and, in relation to each activity or group of activities, specify the total amount of funding to*	The calculation methodology must produce summary tables that show the different sources for funding capital expenditure on an activity. Must be included in the policy: Summary and explanation Proportion of total cost of capital expenditure that will be funded by development contributions, financial contributions and other sources	Paragraph 26, 31, 39, 89 Sections 3.0, 3.9, 4.2, 4.3, 5.4, 6.3, 6.4, 7.2	Schedule 4 Schedule 5

Section reference LGA 2002	Content	Consideration required/ Result	References in this document	Reference – Policy
	be sought by development contributions or financial contributions; and *(e) if development contributions will be required, comply with the requirements set out in sections 201 to 202A;* *(f) if financial contributions will be required, summarise the provisions that relate to financial contributions in the district plan or regional plan prepared under the Resource Management Act 1991.*			
Section 106(3)	*If development contributions are required, the local authority must keep available for public inspection the full methodology that demonstrates how the calculations for those contributions were made.*	This is a reporting requirement to enable anyone to see in detail the way in which development contributions are calculated. The detailed methodology need not be contained in the contributions policy, however, the council's cost allocation model is made available for inspection.		
Section 197AA	***Purpose of development contributions*** *The purpose of the development contribution provisions in this Act is to enable territorial authorities to recover from those persons undertaking development a fair, equitable, and proportionate portion of the total cost of capital expenditure necessary to service growth over the long term.*	The council must take into account the purpose and principles of development contributions when preparing and applying the contributions policy under section 106 or requiring a development contribution under section 198.	Section 2.0, 4.1, 5.1, 6.1, 7.1	Section 1 Overview and purpose
Section 197AB(1)(a)	***Principles of Development Contributions*** *development contributions should only be required if the effects or cumulative effects of developments will create or have created a requirement for the territorial authority to provide or to have provided new or additional assets or assets of increased capacity.*	There must be a causative link between growth and the need for the expenditure which will be funded via development contributions. When operating the contributions policy, there must also be a link between an individual development and one or more projects in the section 201A schedule. Development contributions have to be justifiable, fair and transparent.	Paragraphs 110 Section 1.1, 3.7, 4.3, 5.4, 6.4,	Para 17, 21

Section reference LGA 2002	Content	Consideration required/ Result	References in this document	Reference – Policy
Section 197AB(1)(b)	***Principles of Development Contributions*** *development contributions should be determined in a manner that is generally consistent with the capacity life of the assets for which they are intended to be used and in a way that avoids over-recovery of costs allocated to development contribution funding.*	A contributions policy should identify the capacity life of each asset or programme in terms of the unit of demand. This should be supported by information at a project level held outside of the policy that shows how this was determined. The council must also keep records of revenue collected to ensure it does not continue to charge for projects once their capacity life is taken up.	Section 3.6, 6.4, 7.3.2	
Section 197AB(1)(c)	*cost allocations used to establish development contributions should be determined according to, and be proportional to, the persons who will benefit from the assets to be provided (including the community as a whole) as well as those who create the need for those assets:*	The council should have a clear and documented cost attribution system to apply to each project to meet this requirement. This methodology must take account of causation, as well as beneficiaries of the work.	Section 3.0	Attachment B
Section 197AB(1)(d)	*development contributions must be used—* *i. for or towards the purpose of the activity or the group of activities for which the contributions were required; and for the benefit of the district or the part of the district that is identified in the development contributions policy in which the development contributions were required:*	The council must use the development contributions revenue collected for a particular activity in a particular catchment, only towards that activity and only in that catchment.	Sections 3.7, 4.3.9,	Para 29, 30, 31,32 Schedule 1
Section 197AB(1)(e)	*territorial authorities should make sufficient information available to demonstrate what development contributions are being used for and why they are being used:*	Accounting records should keep track of how development contribution funds are expended. Where projects are undertaken ahead of development, the policy should include a schedule that clearly outlines the projects that development contribution are funding.		Schedule 8
Section 197AB(1)(f)	*development contributions should be predictable and be consistent with the methodology and schedules of the*	Development contributions must be assessed in compliance with the contributions policy.		Attachment B

Section reference LGA 2002	Content	Consideration required/ Result	References in this document	Reference – Policy
	territorial authority's development contributions policy under sections 106, 201, and 202:			
Section 197AB(1)(g)	*When calculating and requiring development contributions, territorial authorities may group together certain developments by geographic area or categories of land use, provided that—* *i. the grouping is done in a manner that balances practical and administrative efficiencies with considerations of fairness and equity; and* ii. *grouping by geographic area avoids grouping across an entire district wherever practical.*	A council may group certain types/forms of development together for the purposes of operating the contributions policy. A council may group or combine growth costs for a particular infrastructure activity between areas within a wider catchment	Paragraph 93 Section 3.7, 4.3.7, 4.3.8, 5.4.1, 6.4.4, 7.4	Para 29
Section 199	***Basis on which development contributions may be required*** *1. Development contributions may be required in relation to developments if the effect of the developments is to require new or additional assets or assets of increased capacity and, as a consequence, the territorial authority incurs capital expenditure to provide appropriately for—* *reserves:* *network infrastructure:* *community infrastructure.* *2. This section does not prevent a territorial authority from requiring a development contribution that is to be used to pay, in full or in part, for capital expenditure already incurred by the territorial authority in anticipation of development.* *3. In subsection (1), effect includes the cumulative effects that a development may have in combination with other developments.*	Subsections (1) and (3) are similar to s.197AB(1)(a). See commentary above. Subsection (2) clarifies that development contributions can be used to recover the cost expenditure on past projects incurred in anticipation of development, as well as future projects. Subsection (3) provides that a development alone does not need to trigger the need for works. Rather, the individual development, together with other developments must create the need (i.e. cumulative demand).		Para 24

Section reference LGA 2002	Content	Consideration required/ Result	References in this document	Reference – Policy
Section 200(1)	*A territorial authority must not require a development contribution for a reserve, network infrastructure, or community infrastructure if, and to the extent that -* *it has, under section 108(2)(a) of the Resource Management Act 1991, imposed a condition on a resource consent in relation to the same development for the same purpose; or* *The developer will fund or otherwise provide for the same reserve, network infrastructure, or community infrastructure; or* *the territorial authority has already required a development contribution for the same purpose in respect of the same building work, whether on the granting of a building consent or a certificate of acceptance; or* *a third party has funded or provided, or undertaken to fund or provide, the same reserve, network infrastructure, or community infrastructure.*	Prohibits the council from requiring development contributions when infrastructure is funded in some other way.	Paragraphs 25, 26, 29, 85, 89 Section 3.5	
Section 201(1)	***Contents of development contributions policy*** *1. If a territorial authority has determined to seek funding for community facilities under this subpart, the policy required by section 102(1) must include, in summary form, in addition to the matters set out in section 106,—* *an explanation of, and justification for, the way each development contribution in the schedule required by subsection (2) is calculated; and* *the significant assumptions underlying the calculation of the schedule of development contributions, including an estimate of the potential effects, if there is a significant level of uncertainty as to the scope and nature of the effects; and* *the conditions and criteria (if any) that will apply in relation to the remission, postponement, or refund of development contributions, or the return of land; and*		Throughout this document	Schedule 3 Schedule 7 Para 104 - 108

Section reference LGA 2002	Content	Consideration required/ Result	References in this document	Reference – Policy
	the basis on which the value of additional allotments or land is assessed for the purposes of section 203(1).			
Section 201(2)	*2. A development contributions policy must contain a schedule in accordance with section 202.*	The calculation methodology must produce a schedule showing contribution amounts for different activities in different areas.		104-108 Attachment B
Section 201A	***Schedule of assets for which development contributions will be used*** *Requires the development contribution policy to provide a schedule detailing the assets or programmes that development contributions will fund, including:* • *Each new asset or programme of works* • *the estimated capital cost* • *percentage funded by development contributions* • *percentage funded from other sources* *Assets can be grouped together in logical format that reflect complete programme of works.* *The schedule(s) must include past and future assets, and separately for each activity for each catchment.*	This is a reporting requirement enabling any person to see in detail which assets and groups of assets are to be funded by development contributions. The policy must produce a schedule showing assets and groups of assets grouped by activity and funding areas and the proportion to be funded by development contributions and other funding sources.		Schedule 8

Section reference LGA 2002	Content	Consideration required/ Result	References in this document	Reference – Policy
Section 202	*Reporting requirement to show in the schedule of development contributions required by Section 201(2) — the development contributions payable in each funding area, calculated in accordance with the methodology in respect of—* *reserves; and* *network infrastructure; and* *community infrastructure.* *The requirements are to report separately in relation to each activity or group of activities for which separate development contributions are required.*	The calculation methodology must produce a schedule showing contribution amounts for different activities in different areas.		Schedule 3
Section 204(1)	*A development contribution must be used for, or towards, the capital expenditure of the reserve, network infrastructure, or community infrastructure for which the contribution was required, which may also include the development of the reserve, network infrastructure, or community infrastructure; but must not be used for the maintenance of the reserve, network infrastructure, or community infrastructure.*	Only growth-related capital costs can be entered into the calculation methodology and they must be attributed to the activity and funding area for which they were required. Once received, development contributions revenue must be applied in the manner set out in this section.	Sections 3.6, 3.7, 4.3, 5.4, 6.4, 7.3	Para 25, 29
Schedule 10 (3)(1)	*A long-term plan must, in relation to each group of activities of the local authority and for each financial year covered by the plan, include a statement of the amount of capital expenditure that the authority has budgeted to—* *meet additional demand for an activity; and* *improve the level of service; and* *replace existing assets.*	This requires the council to distinguish between three different types of capital expenditure. It is only capital expenditure that meets additional demand for an activity that can be considered for funding through development contributions.	Paragraph 26, 90, 102 Section 1.2 7.3	Para 22
Schedule 13 (1)	*In order to calculate the maximum development contribution in respect of a community facility or an activity or group of activities for which a separate development contribution is to be required, a requirement to first—* *identify the total cost of the capital expenditure that the local authority expects to incur in respect of the community facility, or activity or group of activities, to meet increased demand*	Total growth-related costs of capital expenditure (including borrowing costs) for an activity in each funding area must be shared fairly among all the growth units expected to take it up.	Sections 1.1, 3.8, 4.4, 5.4.3, 6.4.5, 7.4	

Section reference LGA 2002	Content	Consideration required/ Result	References in this document	Reference – Policy
	resulting from growth within the district, or part of the district, as the case may be and *identify the share of that expenditure attributable to each unit of demand, using the units of demand for the community facility or for separate activities or groups of activities, as the case may be, by which the impact of growth has been assessed.*			
Schedule 13 (1)(2)	*A territorial authority may identify capital expenditure for the purposes of calculating development contributions in respect of assets or groups of assets that will be built after the period covered by the long-term plan and that are identified in the development contributions policy.*		Section 1.2, 2.0, 3.8	
Schedule 13 (1)(3)	*The total cost of capital identified in subclause (1) may in part relate to assets intended to be delivered beyond the period covered by a territorial authority's long-term plan if—* *the assets concerned are identified in the development contributions policy; and* *the total cost of capital expenditure does not exceed that which relates to the period over which development has been assessed for the purpose of setting development contributions.*		Section 2.0.2, 2.0.3	Schedule 8
Schedule 13 clause (2)	***Attribution of units of demand to developments*** *For the purpose of determining in accordance with section 203(2) the maximum development contribution that may be required for a particular development or type of development, a territorial authority must demonstrate in its methodology that it has attributed units of demand to particular developments or types of development on a consistent and equitable basis.*			Schedule 2

ISSN [xxxx-xxxx] (Print)
ISSN [xxxx-xxxx] (PDF)