NEW ZEALAND
INFRASTRUCTURE
COMMISSION
Te Waihanga

Sharing the cost of Drury's growth – Contributions Policy 2022 variation A

Te Waihanga Submission November 2022

TeWaihanga.govt.nz

Sharing the cost of Drury's growth – Contributions Policy 2022 variation A

Te Waihanga Submission on Auckland Council's proposal

Introduction

1. Thank you for the opportunity to respond to the proposal for Sharing the cost of Drury's growth – Contributions Policy 2022 variation A. The development contributions (DC) work for Drury is a significant step forward for understanding the infrastructure costs associated with urban growth. The use of DCs as an instrument to reflect infrastructure costs across space is broadly consistent with Rautaki-Hanganga-o-Aotearoa, the New Zealand Infrastructure Strategy (the Strategy), specifically, the need for cost reflective pricing (page 126). However, the proposed variation raises a number of issues which will be important to resolve to ensure the intended outcomes.

2. In our feedback we set out several suggestions for consideration, based on our review of the various consultation documents, and our findings and consultation during the development of the Strategy. We draw particular attention to the need for a consistent application of DCs across the region; a methodology that is both stable and forward signalled; the need for demand projections that take account of the National Policy Statement on Urban Development (NPS-UD), the Resource Management (Enabling Housing Supply and Other Matters) Amendment Act 2021 (MDRS), and the proposed DC charge relative to other DC charges in the region; and the role land acquisition might play in corridor protection and infrastructure funding. We are happy to meet to discuss these ideas further at any stage.

About Te Waihanga

3. Te Waihanga is an Autonomous Crown Entity that was established in 2019 as the Government's lead advisor on infrastructure by the New Zealand Infrastructure Commission / Te Waihanga Act 2019. The main function of Te Waihanga is to co-ordinate, develop and promote an approach to infrastructure that improves the wellbeing of New Zealanders.

4. In particular, the Act requires that Te Waihanga must have regard to long-term trends that impact on, or are impacted by, infrastructure including:

   (i) changes to demographics;

   (ii) the emergence and availability of new technology; and

   (iii) matters relating to the mitigation of the effects of climate change (including through reducing emissions of greenhouse gases) and adapting to the effects of climate change.

Rautaki-Hanganga-o-Aotearoa – the New Zealand Infrastructure Strategy

5. One of our legislative requirements is to produce a 30-year infrastructure strategy. The first Strategy was released this year and sets out a strategic approach to infrastructure that will improve the wellbeing of New Zealanders.

6. The Strategy follows a blueprint for action identifying our infrastructure challenges and opportunities and sets out 68 recommendations. A key component of the Strategy is the responsiveness of the infrastructure system to increasing demands arising from growth.

Assessment of the DC policy variation for Drury

Auckland is likely to experience significant growth

7. Auckland is expected to account for 49% of all population growth over the next 30 years. It is already three times the size of the next biggest New Zealand city and could grow by nearly one million people by 2050. Auckland is also one of the world's most severely unaffordable cities, with a median house price that's 10 times the median household income. Since 2000, average house prices have quadrupled.

8. More housing is required to address the current shortage and to cater for future growth. New housing development requires supporting infrastructure. This includes basic infrastructure such as water, energy and waste, but also social infrastructure such as parks and green spaces. The Strategy supports increasing development opportunities in areas with good access to infrastructure (Recommendation 23).

9. There is uncertainty about when and where this growth will occur. Demand uncertainty comes from a range of places including monetary policy, international shocks, domestic fiscal policy, immigration settings, regional house prices, urban congestion and changing patterns of work.

Infrastructure services should be paid for by those who benefit

10. Infrastructure funding is essential for community services. How we choose to fund and finance infrastructure influences what projects are chosen, which community needs are met, when these needs are met, who can access infrastructure, and how it is used.

11. The Strategy sets out six principles for infrastructure funding. These are shown in Table 1. Principle 1 – the benefits principle – implies that those who benefit from an infrastructure service should pay. In our public consultation and stakeholder engagement in developing the Strategy, we heard there is a need to avoid breaking the 'person who benefits pays' (or benefit) principle.

12. Users are not the only beneficiaries of infrastructure. When new infrastructure generates wider benefits, these should be reflected in funding arrangements. For example, a new train station allows people who live nearby to take public transport – but it also increases the value of nearby properties (whether the owners use the train station or not), and benefits road users by shifting demand off congested roads. Application of the benefit principle requires a broader

approach than just user chargers. The proposed DC policy appears consistent with this approach by thinking about the catchment areas for different kinds of infrastructure.

13. We understand that the intent of the Drury DC is to recover a fair, equitable and proportionate share of the total cost of infrastructure necessary to service growth over the long-term. The approach appears to be used as a way of creating a clear link between the demand for new infrastructure (caused by more housing) and the cost of providing that infrastructure.

Table 1: Core principles for infrastructure funding and financing

Infrastructure funding and financing principles	
Principle 1:	Those who benefit pay – Infrastructure services should be paid for by those benefiting from the services (the benefit principle) or creating a need for the service (the causer principle).
Principle 2:	Intergenerational equity – Funding and financing arrangements should reflect the period over which infrastructure assets deliver services and be affordable for current and future generations.
Principle 3:	Transparency – There should be a clear link between the cost to provide infrastructure services and how services are funded. Wherever possible, prices should be service-based and cost-reflective.
Principle 4:	Whole-of-life costing – Funding requirements should include the ongoing costs to maintain and operate an infrastructure asset and the cost to renew or dispose of it at the end of its life as well as the up-front cost to construct or purchase it.
Principle 5:	Administratively simple and standardised – Administrative costs for both providers and users should be minimised unless there are clear benefits from more complex funding and financing arrangements.
Principle 6:	Policies for majority of cases – Funding and financing policies should be written to work for the majority of cases. If needed, alternative or supplementary mechanisms should be added to provide flexibility and ensure fairness.

Source: Te Waihanga

The Drury investments are larger and take place over a longer period than most projects subject to DC policy

14. Drury is expected to have significant growth over the next three decades. By 2060 the population of Drury is projected to be similar to that of current-day Napier and its density is projected to be comparable with the current density of Grey Lynn. Development of this size requires large amounts of infrastructure, most of which will not be built, and much of which may not realise benefits, until well beyond a 10-year long-term plan.

15. The timeline of infrastructure provision in Drury will occur over a long time period. The shift to a 30-year time frame appears to better match investment timing to value realisation. According to the consultation documents, the expenditures intended for recovery by DCs begin in 2032, reach a peak of over $200m in 2041, and conclude in 2048. The current long-term plan extends to 2031.

16. The current 10-year timeframe would likely result in developers being undercharged for the benefit they should expect. The approach appears to be designed in a way such that ratepayers are not made to fund a disproportionate share of capital expenditure.

There is transparency in the schedule of infrastructure requirements

17. As highlighted in the Strategy, transparency is a core principle for decision-making for public infrastructure. We note that the approach of using DCs as an instrument to reflect likely infrastructure costs to market participants has created the need for a detailed assessment of the infrastructure requirements for Drury, over a 30-year period; and that this information is publicly available. The information provided sets a useful standard for future urban infrastructure planning.

Council faces asymmetric risk under the proposed policy

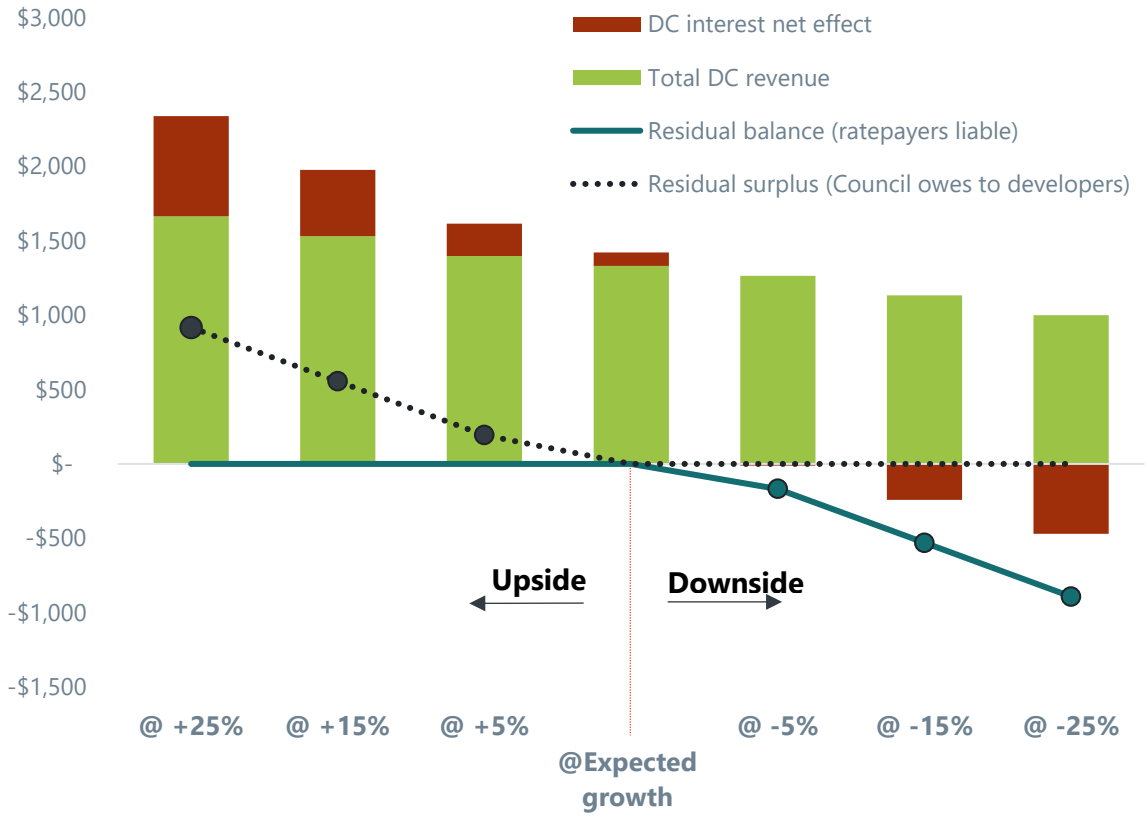
18. Council assumes the risk of covering gaps in funding if development uptake is lower or slower than expected. This is the case in both the existing 2022 DC policy and the Drury variation. We understand that if growth is below expectations during the DC recovery period, ratepayers are liable for the debt used to finance investment capex. If growth is stronger or faster than expected then the DC effectively over-charges developers, but the Council does not gain extra revenue. Instead, the Council is obliged to refund the difference. Should growth in Drury occur exactly as and when expected, the proposed DC charges are calculated to result in a remaining balance of zero.

19. Ratepayers are liable for under-collection of DC charges, while Council is liable for refunding developers for any over-collection. Figure 1 shows our understanding of the total DC revenue (including the interest net effect) when development uptake does not match forecast demand. The DC charge amounts are calculated to reach a zero balance in 2060 based on the exact forecast timing of both uptake and capex. Using the models provided, we estimate that if growth in household unit equivalents (HUEs)[1] was 15% less than projected, ratepayers would be liable for an estimated $530m. If HUE growth was 15% greater than projected, there would be an estimated residual surplus in the order of $555m which we understand would then be refunded. Note this does not account for any additional infrastructure investment that may be needed to accommodate the higher growth.

[1] The DC charges for development of any given subsection are determined based on an allocation of the level of use that development is expected to draw from each type of infrastructure service. This level of use is measured in HUEs, the amount equivalent to what an average household might use.

Figure 1: Auckland Council faces asymmetric risk

The effect of HUE growth sensitivity on residual 2060 liabilities



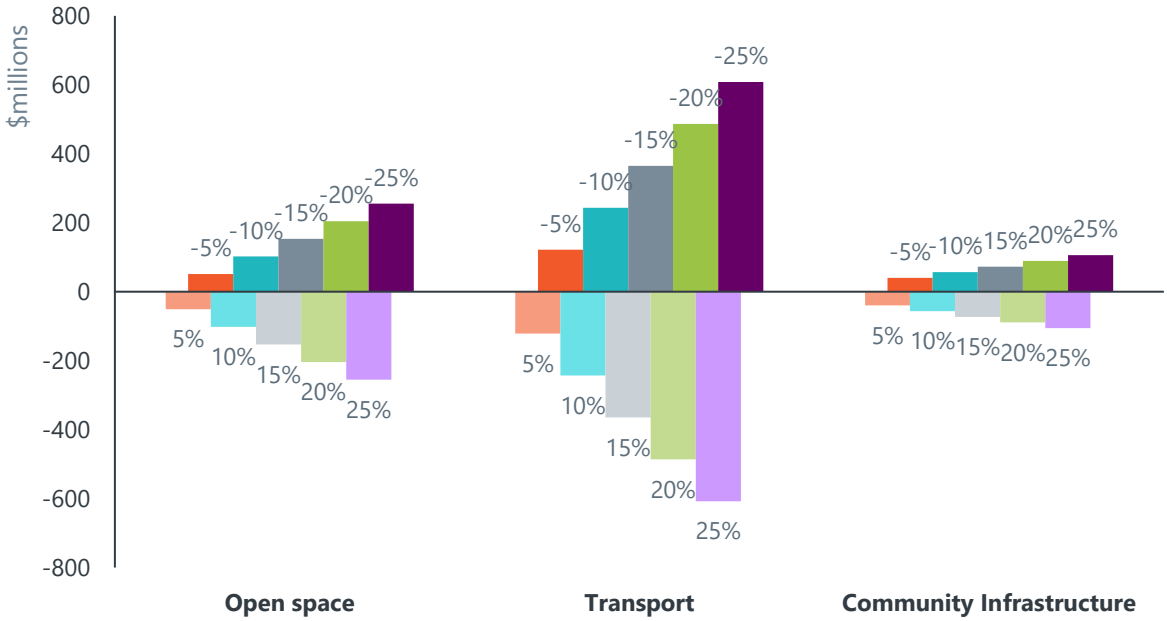
Source: Auckland Council Drury DC model released 12 September 2022; Te Waihanga analysis.

Revenue is sensitive to changes in forecast demand

20. Differences in actual demand from forecast demand mean a non-zero closing balance. In the Drury variation, DC charges are calculated to allow DC revenue plus earned interest to exactly offset eligible capital expenditure plus net interest charges over the period to 2060. Figure 2 shows a calculated sensitivity of this closing balance as of 2060 to changes in development uptake. The residual balance amounts are broken down into three categories: open space infrastructure, transport infrastructure and community infrastructure, with the predicted HUEs changing by various percentages. As transport infrastructure requires the largest expenditure, it carries the greatest financial risk.

Figure 2: Closing balance is relatively sensitive to changes in HUEs with transport carrying the most risk.

Change in 2060 closing balance for a given % change in DC collection per period

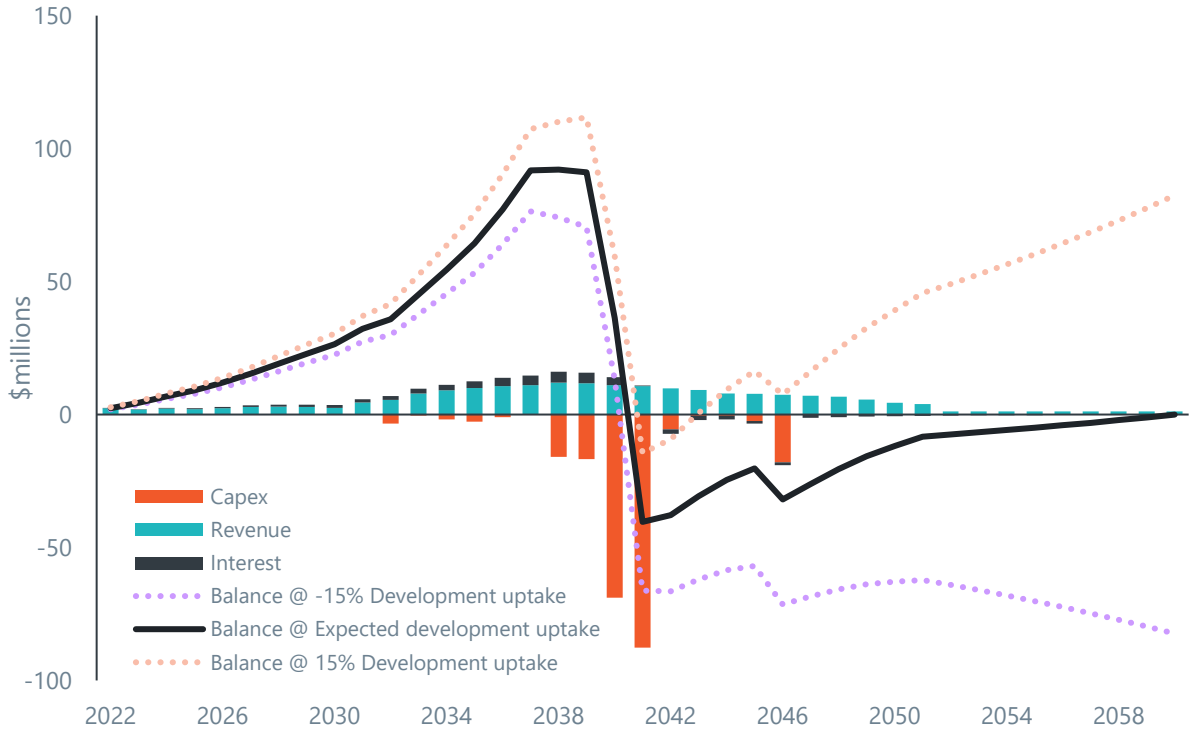


Source: Auckland Council Drury DC model released 12 September 2022; Te Waihanga analysis.

21. All projects proposed are vulnerable to demand-side risk. A project example of this is shown in Figure 3 using TRA A26; transport expenditure in a specific funding area. The figure shows the capex, revenue, and interest changes assuming no change to the forecast HUEs for this project but also shows how the remaining balance would change if there was a positive and negative 15% change in the forecast HUEs.

Figure 3: The closing balance is sensitive to relatively small changes in HUE growth

Cash flows over time – TRA A26



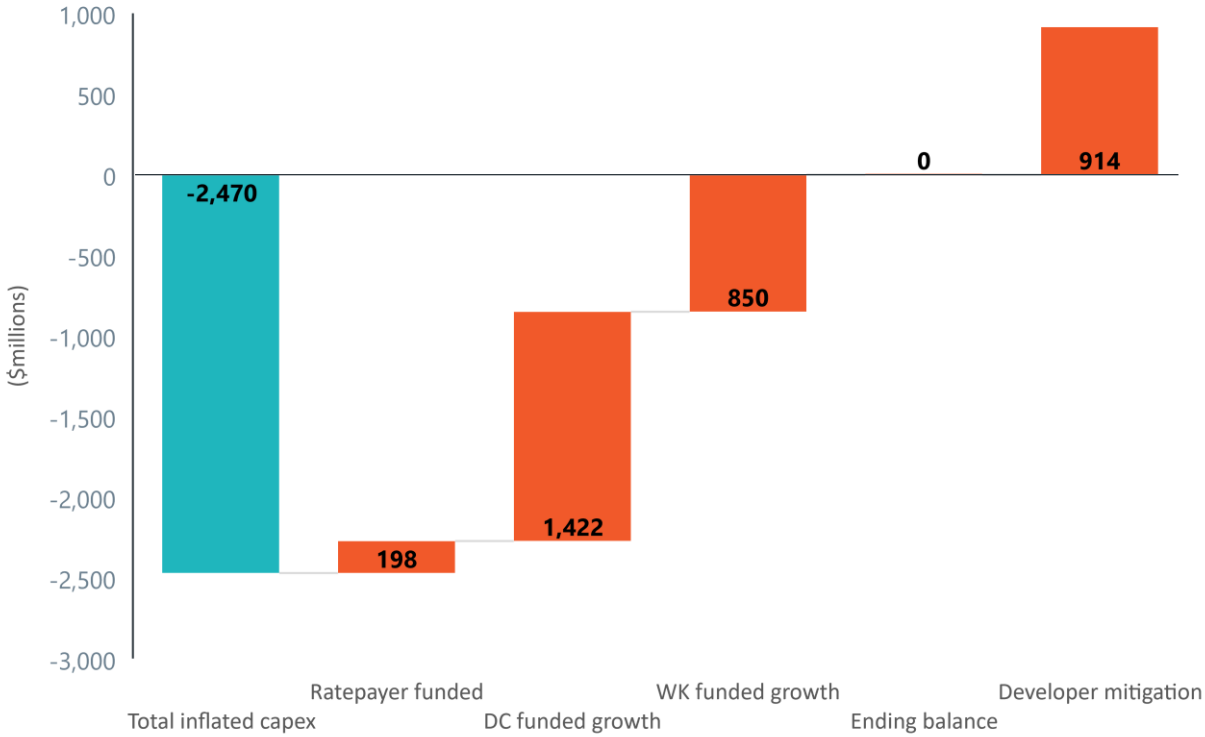
Source: Auckland Council Drury DC model released 12 September 2022; Te Waihanga analysis.

Small changes in growth lead to big differences in ratepayer liability

22. The intent of the policy appears to limit the proportion of capex funded by ratepayers. This reflects the fact that a high proportion of benefits accrue to new growth. Figure 4 shows the breakdown of funding for DC-eligible capex in Drury. We understand that the estimated total capex for the Drury proposal will be funded through a mix of DCs, Waka Kotahi funding and ratepayers. DCs appear to fund the largest proportion, followed by Waka Kotahi. Ratepayers are expected to fund just under $200m (8%) of capex.

Figure 4: Developers fund the majority of capex in the base case

Breakdown of sources of capital expenditure cost recovery

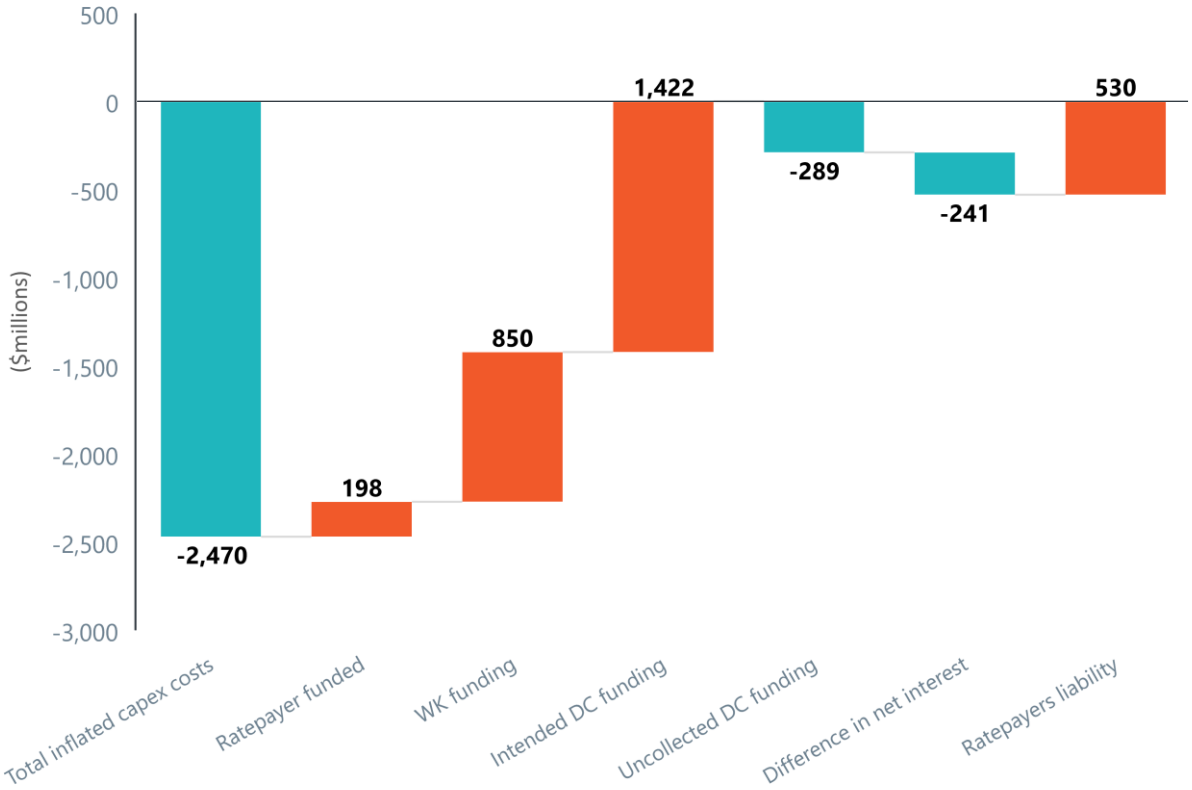


Source: Auckland Council Drury DC model released 12 September 2022 and G2 Detailed transport costs v3; Te Waihanga analysis.

23. This distribution of costs appears to hold when the timing and volume of development uptake is as expected. While developers will be refunded when overpayment occurs, the burden on ratepayers is sensitive to demand. Figure 5 shows the residual balance using the same DC charge if development uptake is 15% less than expected in every year to 2060. The residual balance is estimated at $530m and results in total liability for ratepayers of 3.67 times the original, or 27% of the new total (which also increases due to greater financing costs). At 25% less uptake, it is a 5.5 multiple.

Figure 5: A 15% shortfall in uptake each year leads to a ratepayer liability of 3.67 times

Breakdown of capital expenditure cost recovery by source with 15% less uptake in each year



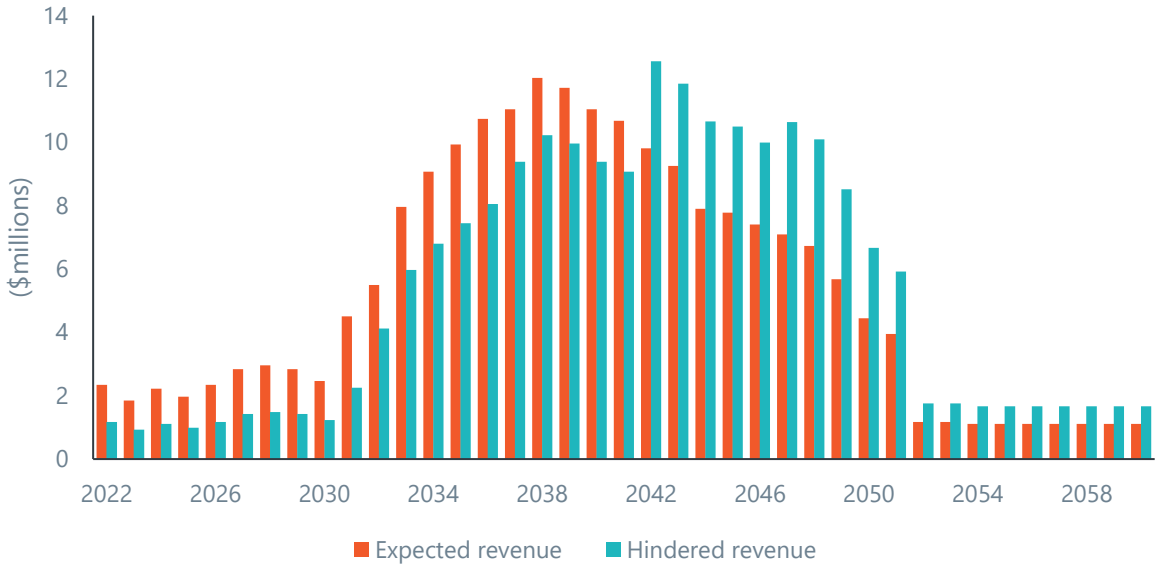
Source: Auckland Council Drury DC model released 12 September 2022 and G2 Detailed transport costs v3; Te Waihanga analysis.

A change in uptake timing impacts ratepayer liability

24. We simulate a shift in the timing of development. The adjusted HUE growth value scenario (hindered revenue) in Figure 6 was calculated using growth multipliers that shifted the HUE growth timing out to later years, keeping the total quantity of HUEs constant. Figure 7 shows that funding pressures are sensitive to a timing change. The simulated shift in timing of growth results in an estimated ending unpaid balance of $57m for TRA A26. This is the additional liability that might fall on ratepayers under this slow uptake scenario, equal to 6% of the total forecast capex.

Figure 6: The time of revenue cashflows are very sensitive to when uptake in Drury occurs

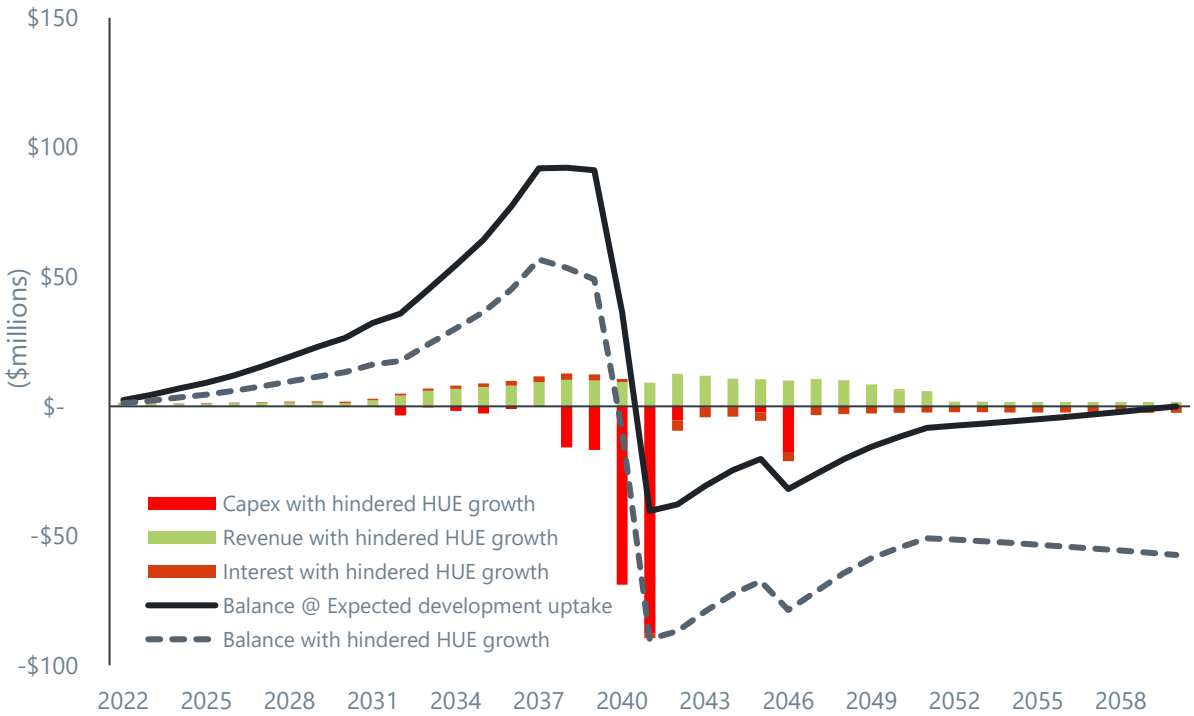
Revenue timing under expected HUE uptake vs hindered HUE uptake



Source: Auckland Council Drury DC model released 12 September 2022; Te Waihanga analysis.

Figure 7: Ratepayers are vulnerable to the timing of development uptake

Expected uptake vs hindered HUE growth for a single project (TRA A26)



Source: Auckland Council Drury DC model released 12 September 2022; Te Waihanga analysis.

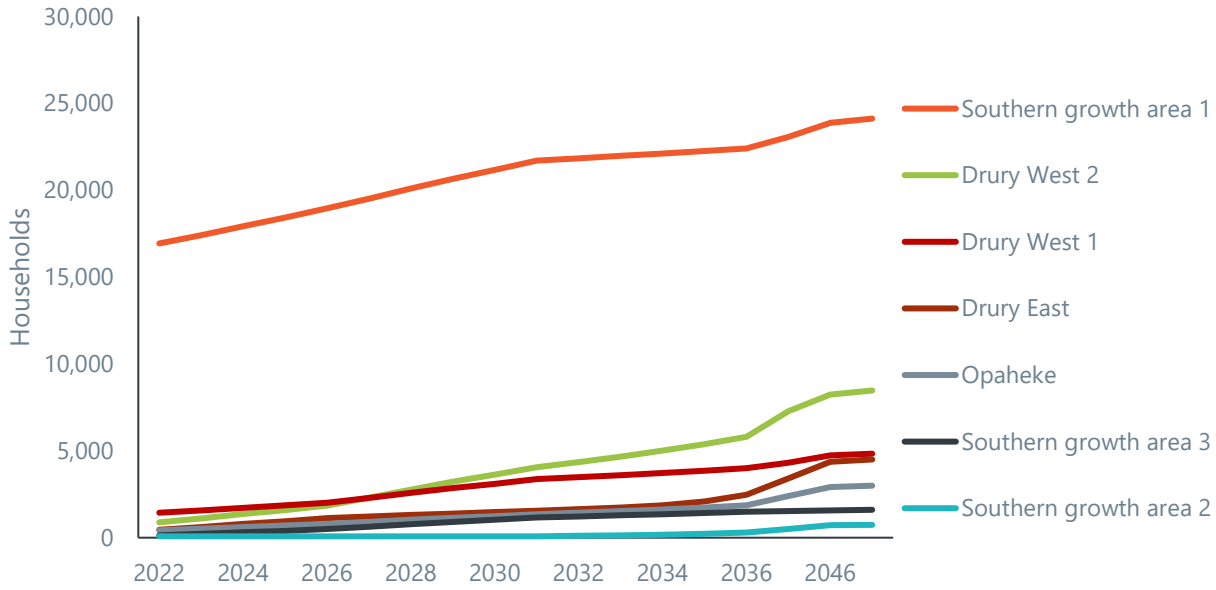
There are several reasons why uptake may be slower than planned

25. Density in Drury is forecast to rise considerably over the development period. The Drury West 1 funding area is projected to have the highest level of density out of all the transport funding areas in Drury. Its forecast 2051 density is comparable to the current density in suburbs such as Grey Lynn, Devonport, and Glenfield. Figure 8 shows how total households in each of the

transport funding areas are forecast to rise between now and 2051. With an average density increase of more than seven times current density, the expectation appears to be that it will start slow and rise rapidly from 2031 onwards.

Figure 8: Southern growth area 1 is expected to have the most households by 2051 and Drury West 2 is expected to have the highest household growth rate

Household growth by funding area



Source: Auckland Council Growth HUE model; Te Waihanga analysis.

26. Council's response to the NPS-UD and MDRS rule changes will greatly increase permissible development capacity in areas other than Drury. In August 2022, Council notified proposed Plan Change 78 (PC78), an intensification planning instrument (IPI). The purpose of the change is to respond to recent Resource Management Act changes made by central government under the NPS-UD and the MDRS. PC78 makes changes to the current operative district and regional plan. It significantly increases development capacity across Auckland and notably, in areas with low transport costs (those areas in a walkable catchment area of rapid transit nodes).

27. This increase in capacity has the potential to influence growth patterns in Drury. Urban zoned sites across the city now have greater capacity, creating new competition for Drury. To our knowledge, the projections for Drury (as part of land use scenario i11.6) have not been updated following the planning changes in Plan Change 78.

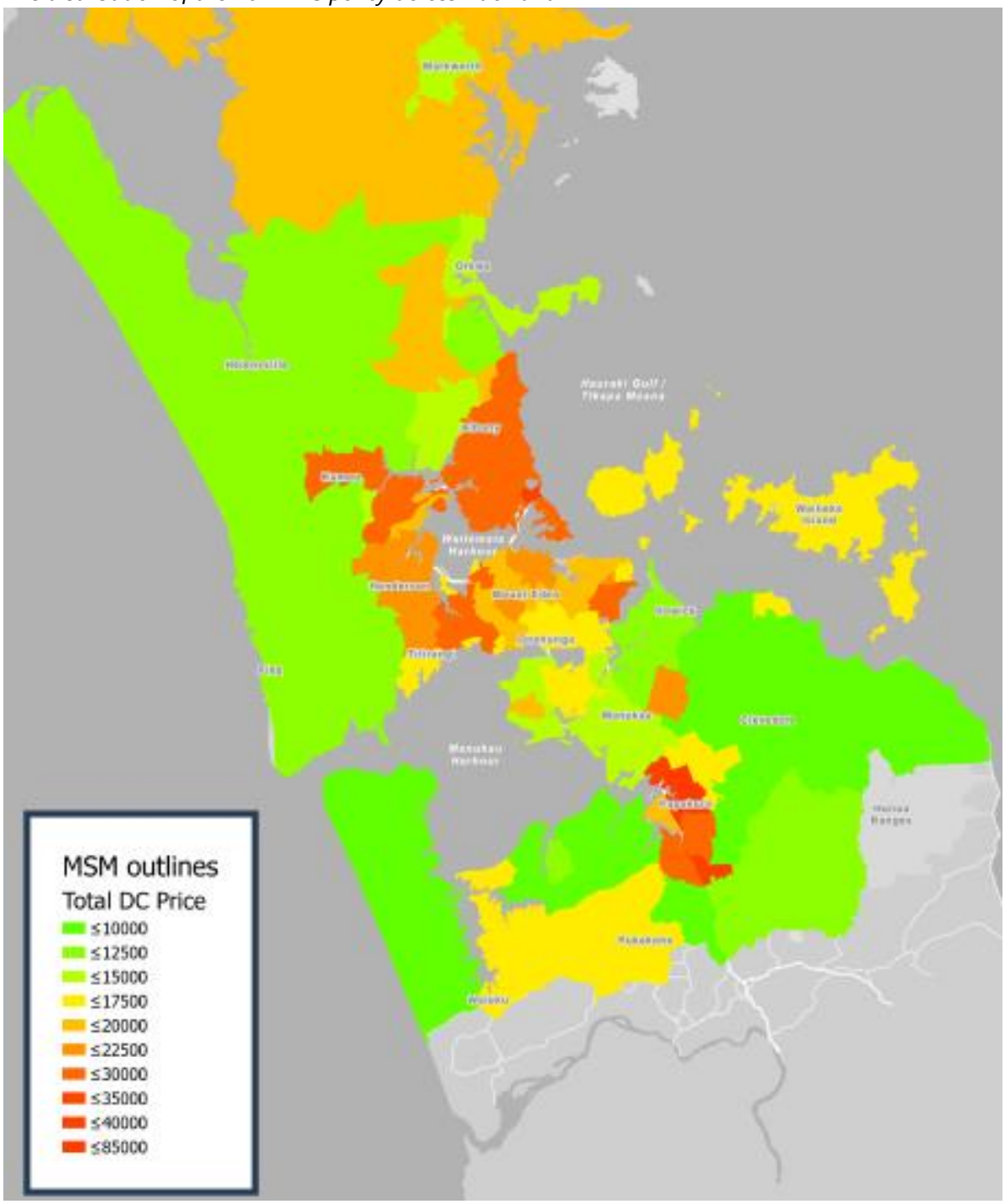
28. DCs are 2 to 9.5 times higher in Drury. Charges under the 2022 DC policy throughout Auckland vary significantly by location and development type, yet on average they are significantly lower elsewhere than what is being proposed in Drury. The 2022 total DC charges in the rest of Auckland range from around $8,700 to $35,000 per HUE. This is materially different to the proposed average DC charge in Drury of $83,251 per HUE (see Figure 9). Figure 10 compares current and proposed transport DCs in Drury; Figure 11 compares transport DCs in Drury with other areas in Auckland. Both imply large differences in relative prices. We suspect that these differences are driven by the high proportion of benefit accruing to new growth in the Drury methodology and the extension of the policy to cover the 30-year build-out period, among other factors.

29. To the extent that these differences do not reflect actual differences in infrastructure costs, the relative prices may result in unintended outcomes. High relative prices in Drury will likely

disincentivise growth in Drury. Other parts of Auckland, which now enjoy more permissive zoning, benefit from relatively low DCs. This increases the likelihood of weaker development uptake and lower DC revenue than expected, which may in turn increase contingent liability for ratepayers. This appears to contradict the original intent of the policy.

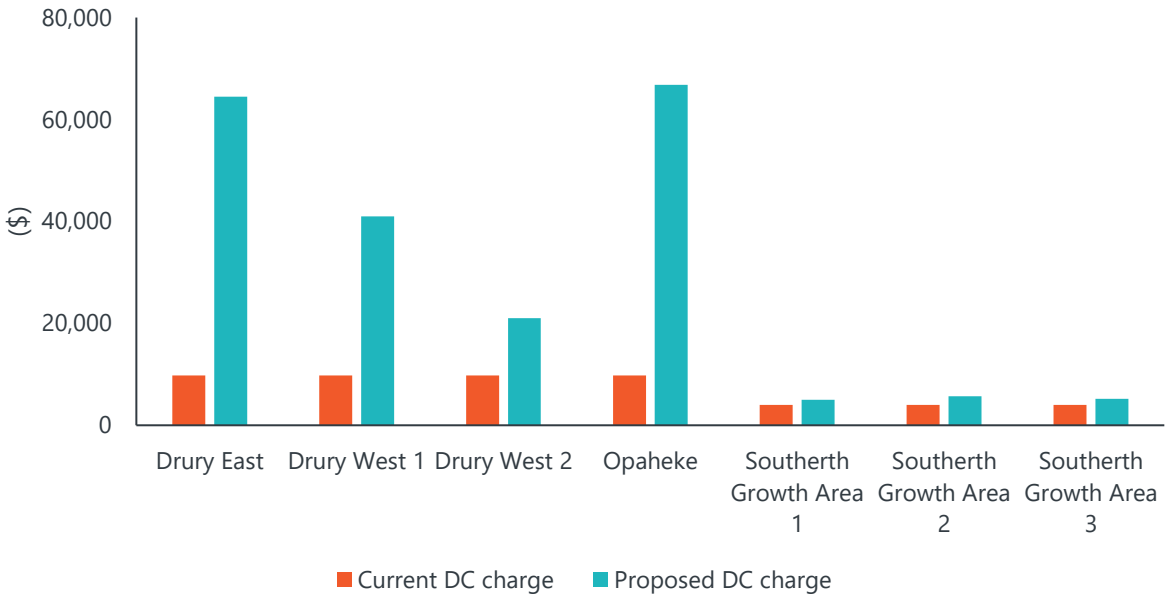
Figure 9: Proposed DCs in Drury are significantly greater than other areas.

The distribution of the 2022 DC policy across Auckland



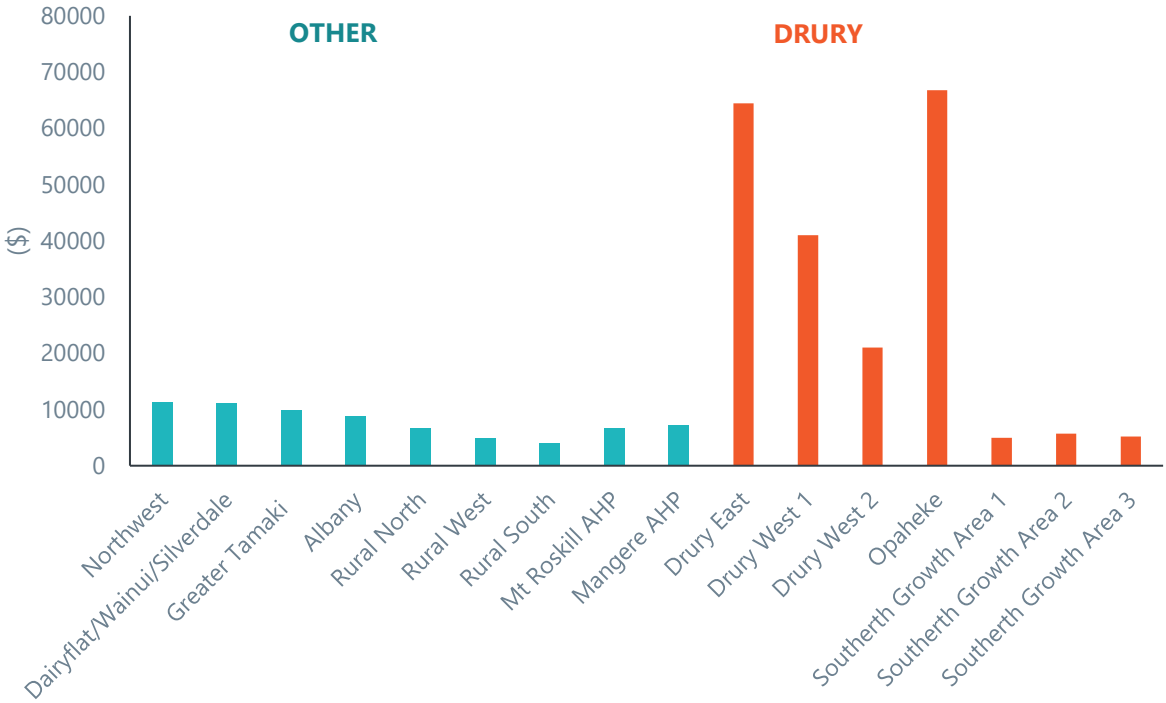
Source: Auckland Council, Contributions Policy 2022: Maps and growth HUEs.

Figure 10: The proposed DC transport charges for Drury are significantly greater in certain funding areas then they are today.
Current vs proposed DC transport charge



Source: Auckland Council 2. Methodology for Calculating DCs for Drury Final; Te Waihanga analysis.

Figure 11: Transport component of DC charge by area in Auckland
Drury vs elsewhere in Auckland



Source: Auckland Council: Development Contributions Policy 2022, Development Contributions Policy 2022 maps & Methodology for Calculating DCs for Drury.

Risk allocation might be improved using other tools

30. The current method for calculating DC charges is a form of amortised payment covering capex costs. The payment amount is calculated to offset a lump sum over time, reaching zero in a specific future period. However, it differs from standard amortisation applications (such as a mortgage) in two ways. First, where a standard amortisation will equalise payments per period, the DC charge calculation equalises payments per HUE such that HUE uptake at the expected level in each period will result in a zero balance in 2060. Second, a standard amortisation usually involves flows of interest in only one direction as the lump sum disbursement either precedes or follows all instalments of the equalised payments. By contrast, the DC charge involves two-way interest flows – in one direction as Council earns interest for contributions collected before the major capex outflows, and in the other direction as Council makes payments on loans after the capex outflows. This two-way flow design helps prevent under-contribution by early developers and also allows early DC collections to earn interest to offset the eventual capex and thereby lower the overall DC charge needed.

31. An amortisation-based approach is well suited when cashflows are predictable. This approach of timing repayment of a loan to reach a target amount (in this case, zero) in a specific year is common where cash flows are reliable and predictable, such as a mortgage, corporate debt for cash-positive firms, or a monthly savings plan for retirement. In contrast, the timing and volume of development uptake in Drury is less predictable.

32. Council might consider using an equity-based approach to compliment DCs in Drury. Equity investment is useful when value is likely to be created but the timing of its realisation as a cash flow is difficult to predict. Such an approach may better allocate risk across the parties best placed to manage it. This aligns with the recommendation of the OECD Council in their 2012 Principles for Public Governance of Public-Private Partnerships (a label for a collection of mechanisms commonly used to fund and deliver infrastructure). Principle 6 states:

    "Transfer the risks to those that manage them best. Risk should be defined, identified, and measured and carried by the party for whom it costs the least to prevent the risk from realising or for whom realised risk costs the least."

33. One way to do this is early land acquisition for corridor protection or other activities. Council could consider early purchases of land in key areas needed for (or surrounding) planned infrastructure investments. This land will increase in value with growing demand. It can later be used to deliver or fund infrastructure. This could be done either by Council or through a special purpose vehicle (under the Infrastructure Funding and Financing Act for instance).

34. We acknowledge that there are challenges to this approach. For instance, current limits set by the Public Works Act (for designations for instance) and local government debt limits. We would welcome the opportunity to work with Auckland Council to better understand these issues and how system settings might change to improve how we fund and finance infrastructure.

Recommendations

The proposed approach needs to be applied across the region

35. The relative DC price is as important as the absolute price. A bespoke approach for Drury risks creating pricing distortions that push growth to more expensive areas or undermine the case

for development in Drury with contingent liability for ratepayers. Cost reflective DC pricing has advantages but it needs to be applied region wide.

Council should fund corridor protection in Drury

36. The work on DCs strengthens the case for corridor protection. Funding corridor protection buys Council infrastructure optionality. Since land prices and urban growth are correlated, the current approach of purchasing land three years prior to delivery raises the infrastructure cost considerably. For instance, the cost for purchasing the land for the N-S Opaheke Arterial today is $78.4m. Auckland Council expects this to rise 13 times, to $1.047bn at the expected time of purchase. Corridor protection could be viewed as a mechanism for mitigating Council's demand risk. This approach would be consistent with Recommendation 16 in the Strategy.

Demand projections for Drury need updating

37. The planning work for Drury was done prior to the MDRS and NPS-UD. These regulatory changes have vastly increased the supply of housing across Auckland. This will likely impact the scale and timing of growth in Drury.

38. The proposed DC charge in Drury will impact demand because DC charges are many multiples the average DC charge. The proposed DC transport charge for Drury is 3.8 times greater than the current average DC transport charge in Auckland (excluding Drury); and DCs are 2 to 9.5 times higher in Drury. This is likely to incentivise development away from Drury. This will likely impact the scale and timing of growth in Drury.

39. The current macroeconomic environment may change the timing of demand. Rising interest rates, cost of materials and continued housing affordability problems, together with changing expectations of working from home, might impact when development occurs in Drury.

40. We note that Council has some flexibility in the DC charge over time and that this could be used to help manage deviations in demand from expectations.

Future DC policy should be announced simultaneously, or in advance of, zoning decisions

41. Land markets value certainty. The current approach highlights two sources of uncertainty that might be better managed. First, the Drury DC policy introduces a different, more sophisticated approach to pricing. While this is welcomed, it deviates from existing policy. Second, the announcement of this cost reflective DC policy has occurred subsequent to zoning changes. The combination of these two factors is likely to create an expectations gap with market participants. For instance, land may have been purchased by developers with an expectation of DCs that were more aligned with regional DC policy.

42. Markets would benefit from DC policy that is stable and provided early. To avoid this issue in the future, DC policy should be announced alongside, or even prior to planning decisions. Doing so would improve information and certainty to market participants. If DC policy is provided early, we expect land purchase costs would fall and the incidence would lie with the landowner. Cost incidence of DC policy that is announced subsequent to zoning decisions (and is higher than expected) would lie between landowners and developers and would manifest through lower margins and/or lower housing supply.

43. This approach would likely require a fundamental reordering of planning activities. This would involve more resource being allocated to infrastructure planning and delivery.

44. For the Drury DC charge, Council might consider the usefulness of a transition period, where the policy is staged with forward guidance. We acknowledge that staging the introduction of the policy would need to be funded. Some consideration might be given to a targeted rate on areas with highly stringent regulatory policy (such as where land supply has been restricted on the basis of Special Character) – on the basis that these policies are displacing residents away from more desirable locations, creating demand for infrastructure in more dispersed areas.

Conclusion

Thank you for the opportunity to make our submission on the proposal. Te Waihanga looks forward to engaging further with Auckland Council on how best to fund new infrastructure to support growth across the region. In the meantime, if you have any questions about this submission, or any other aspect of Te Waihanga's work, please do not hesitate to get in touch.

Yours Sincerely

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