It was good to meet with you in April and good work on the Strategy Consultation Document. We have a few suggestions on how projections are discussed and conveyed which reflect some of our discussions when we met. We have also had some local government feedback on how the projections are presented in the document. This is important in the context of ensuring the projections are interpreted and used appropriately.

p31 – "At the same time, some parts of New Zealand are expected to stagnate or experience population decline." 'Stagnate' is an emotive word that implies economic and social deprivation, and this statement links (either intentionally or unintentionally) this directly with population decline. This may or may not be the case. A better way to word this is: "At the same time, some parts of New Zealand are expected to experience static or declining populations.", which fits with the rest of the paragraph.

P63 – "New Zealand is expected to continue to grow rapidly in coming decades, primarily through migration." We wouldn't describe the projected growth as 'rapid', while given the volatility and uncertainty of international migration flows, a better way to word this is: "New Zealand is expected to continue to grow in coming decades, with migration an important contributor to that growth."

Figure 6 endnote (#40) suggests it is based on 2013-base projections. If it isn't already, however, it should source the 2018-base projections (#45). The map itself presents over-precise shares (%) of population growth. Given the uncertainty, there is no justification for presenting these %s to 1 decimal place. That these %s are based on the "medium projection" should be stated on the map.

P64 – "The West Coast region is projected to experience a 6 percent decline in this period". If only one projection is presented, it should be cited as the medium projection. Alternatively, the three official projections could be presented: "The West Coast region is projected to experience a 6 percent decline in this period according to the medium projection, but alternative low and high projections indicate a 21 percent decline and an 11 percent increase, respectively."

The projections are not forecasts, and it would greatly help appropriate use of the projections if this terminology is maintained: "The size of this group is projected to double to 1.49 million in 2051 (median projection), from 792,500 in 2020."

Figure 7 also makes no effort to convey uncertainty. At the very least it should be stipulated that these are the 'median projection'. The Stats NZ release includes a chart which does illustrate the uncertainty for these same two age groupings (https://www.stats.govt.nz/information-releases/national-population-projections-2020base2073#fastest).

P65 – "Population projections are volatile, and this affects infrastructure decisions." It is not the projections which are volatile, it is population growth and growth rates, so reword to something like: "Population growth can be volatile, and this affects infrastructure decisions.".

The volatility in population growth rates is a good observation and the comparison with Iceland and Ireland is fine, but the obvious point should be made that countries (and other geographic areas) with smaller populations tend to have greater volatility in population growth rates. This doesn't mean countries with larger populations don't have volatility – because they do – but that when expressed as a rate of growth, the volatility is suppressed.

"Population projections by their nature are uncertain" – it is not the projections which are uncertain, it is future populations. This paragraph should be reworded to something like: "Future populations

by their nature are uncertain. Only 23 territorial authority areas are currently projected by Stats NZ to be very likely to grow over the next 30 years."

We don't think any area can be described as "certain to grow" over a period of 30 years. "Very likely to grow" would be much better.

"For infrastructure owners, uncertainty in population forecasts flows into planning and decision-making for future infrastructure." Reword to: "For infrastructure owners, uncertainty in future population (and projections thereof) flows into planning and decision-making for future infrastructure."

P66 – we like the graph but it should state (in the title) that the comparison is with historical "midrange" population projections. At any time there were of course projections published that were much higher, and much lower, than the mid-range projection.

P65 and 67 – there is some good discussion on these pages but we question the reference to a 'most likely' growth scenario. Statistically, any scenario has close to a zero probability of occurring. We suggest referring to a 'medium growth' scenario which fits with the 'low growth' and 'high growth' terminology and avoids misrepresenting the likelihood of the medium growth scenario occurring.