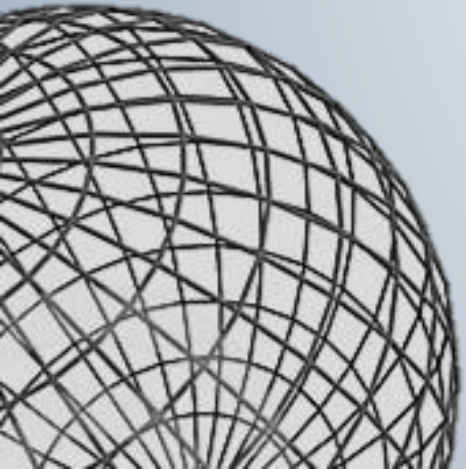


Submission: J.L. & R.J. Shirtcliff

1. There is a problem with the statistical base and associated PDP assumptions...

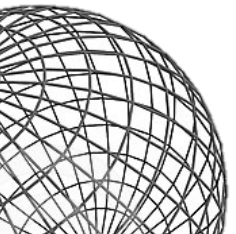
Geraldine's Growth has been consistently understated throughout the PDP process and is, consequently, significantly underestimated!

2. Allow for further intensification of 584 Orari Station Rd



Projections are notoriously inaccurate for small population centres – Handle projections with care!

- Prediction is very difficult, especially about the future” - Niels Bohr
- “the methods for projecting population at small-area level are under-developed relative to projection methods for larger areas” (Using land-use modelling to statistically downscale population projections to small areas, Cameron M.P., *Australasian Journal of Regional Studies*, Vol. 23, No.2, 2017 195)
- “fewer than 1/3 of TAs are projected to experience near-certain decline” (The relative (un)certainty of sub national decline. Cameron M.P., Policy Quarterly Vol 13, Supplementary Issue, June 2017)
- Population projections are uncertain and modelling outcomes may be assigned a probability.
 - Notably, in 2017 research conducted of NZ Territorial Authorities, Timaru’s population was not projected to decline in either of the modelled horizons (2023-2033 & 2043-2053) to a probability >0. (The relative (un)certainty of subnational population decline, Cameron M.P. *Policy Quarterly – Volume 13 – Supplementary Issue – June 2017*, pp. 55-60)

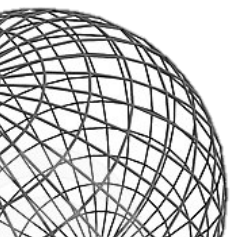
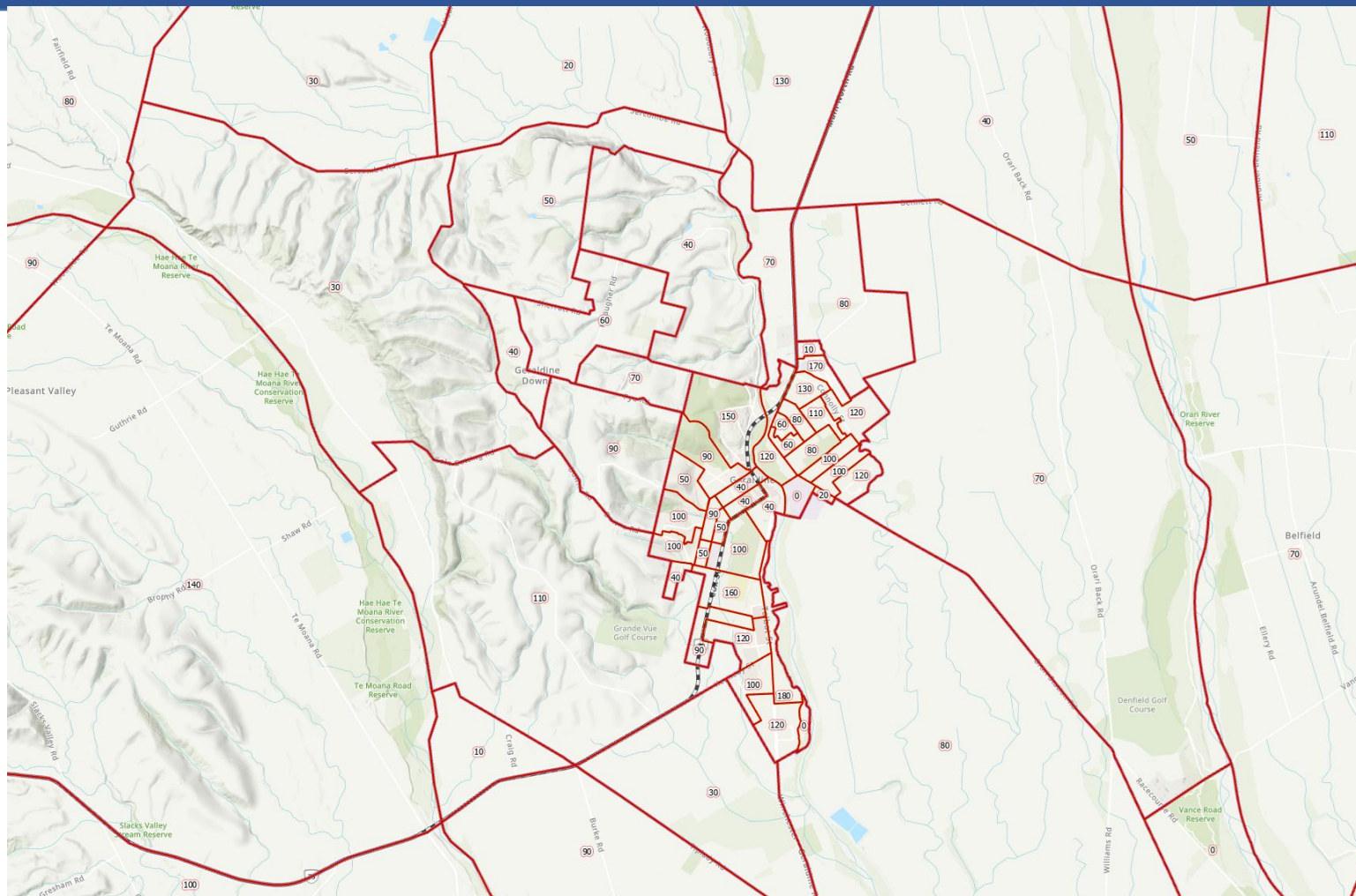


Historical Area Unit Geraldine



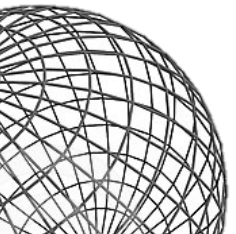
Geraldine 2023 population by meshblock

(Source: TDC from 2023 SNZ Census data)



First... some home truths about Timaru District's population growth and the Geraldine settlement

- “Expert” reports underpinning the growth estimates for the PDP have been consistently and seriously inaccurate due to Geraldine’s population not being accurately defined and counted
 - Statistics NZ have acknowledged this anomaly and have, during the past 2 intercensal periods, added new meshblocks to more accurately track Geraldine’s population trends
 - *“The statistical geographies standard had its last major update after the 1989 local government reorganisation... But over time, the statistical geographies have become out of date, and no longer reflect current land use and population patterns...”*
 - Reliance (by Stats NZ) upon the historical “town boundary” of Geraldine as the basis for the statistical Area Unit has resulted in a **significant undercount** of urban growth as the settlement has grown outwards and the peri-urban area has been more closely settled
 - The PE report (2024 pp19-20) records that Timaru District has been growing along the Medium Growth projection path @ 2.7% between 2018 – 2023
 - During the same period Geraldine’s population grew in excess of 11% to an urban population of 3400 bolstered by a further 600 within the immediately adjacent peri-urban meshblocks (refer TDC supplied census 2023 data prior slide).
 - **Geraldine has grown by some 43% since the 2013 census (pop. 2301) was taken.**
 - This growth despite being hampered in the most recent years by:
 - A lack of readily available and suitably zoned land, and
 - Recessionary economic conditions since 2022



Beware expert population projections

- Statistics NZ have, in the past, been demonstrably astray in their medium growth projections for the Timaru District*

- In 1997, SNZ, using 1996 population base (43,300), projected:

Est Pop 1996	Est Pop 1997	Medium Proj Est Pop 2006	Actual Growth 1996-2006	Proj Growth 1996-2006	ERROR
43,300	43,800	41,500	1.2%	-4.2%	5.4%

- In 2002, SNZ using 2001 population base (42800), projected:

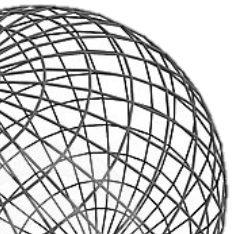
Est Pop 2001	Est Pop 2006	Medium Proj Est Pop 2006	Actual Growth 2001-2006	Proj Growth 2001-2006	ERROR
42800	43800	42200	2.3%	-1.4%	3.7%

- Errors of these magnitudes do not inspire confidence in the use of population projections as a basis for accurately forecasting land zoning requirements on the sort of horizon contemplated by the PDP planning process.

*Source: Cameron & Poot, *A Stochastic Sub-national Population Projection Methodology with an Application to the Waikato Region of New Zealand*, Population Studies Centre University of Waikato, March 2010, pp. 9-12.

Further research findings...

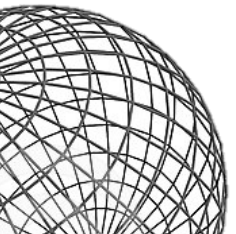
- The Cameron & Poot (pp.1 & 27) research arrived at the following relevant conclusion:
“Generally, the identified and modelled uncertainty makes the traditional “mid range” scenario of subnational population projections of limited use for policy analysis or planning beyond the relatively short projection horizon”
- Further, the researchers also found that:
 - Population projections become more uncertain the smaller the geographical area for which population is being projected (see Cameron and Poot pp. 26-27)
 - SNZ systematically underprojects areas that are growing more quickly (pp. 13-15)
 - SNZ uses the cohort component model to project area units, but the lack of appropriate data at that level makes their projections less plausible beyond a very short future time frame (personal communication M.P. Cameron).



Implications for Geraldine's planned land supply

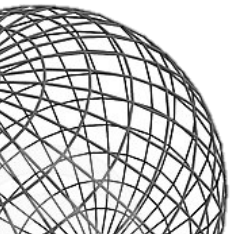
Timaru District has, over the medium term, grown at a rate consistent with the medium growth scenario and the SNZ population growth projections are increasingly inaccurate when applied to smaller data points such as the Area Unit (SA2)

- Geraldine has consistently grown at a rate (ca 11%) considerably above that of the Timaru District aggregation despite constraints in available land
- Geraldine has grown, and is likely to continue to grow, above the SNZ High Growth projection rate for Timaru, subject to increased availability of land for GRZ and RLZ development
- The question must be:
 - Will the assumptions underpinning growth used in the PE report lead to constraints in suitably zoned land, over the life of the PDP, to accommodate the sorts of growth that Geraldine has exhibited?
 - Common sense and the evidence suggests that the presently contemplated PDP rezoning of Geraldine land, as supported in the S42A report, is likely to prove insufficient over a medium to longer term horizon.



Implications cntd...

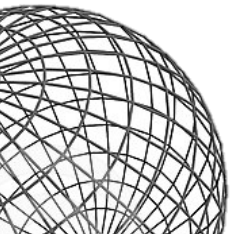
- Also recall that the present Operative Plan is now 10 years past its intended “use by” date of 2015
- Should a similar lengthy process occur at the conclusion of the 10 year lifetime of the PDP, after it is (hopefully) made operative in 2026, it would be prudent for the new OP to provide for adequate land availability out to 2046 to avoid repeating past short-sightedness in planning!
- For example if we conservatively assume a 1.8% annual growth rate the urban population of Geraldine could be some 4,130 by 2036 (19% growth over 10 years) and 4,940 by 2046 (43% growth over 20 years).
 - Growth of this order will approximately require an additional 365 houses (2023) and 770 (2046). Note that this calculation does not take account of likely RLZ growth
 - Proposed GRZ lands will be very nearly full by 2036 and totally inadequate by 2046.



Caution required

We submit that it would be extraordinarily remiss to take the overall Timaru District growth rate and to then, uncritically, apply that growth rate in the expectation that population and future land requirement projections or forecasts will then be accurate at the Geraldine settlement level

- It is clear that Geraldine is, and will likely continue to be, growing at a rate substantially in excess of that for the Timaru District as a whole and accounting for much of the District's population growth.
- Supply and demand projections for Geraldine land will inevitably be flawed and likely insufficient.



584 Orari Station Rd - Aerial View



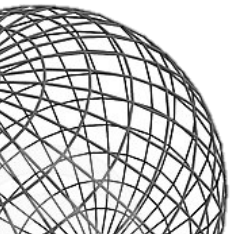
The Hearing Panel should consider more carefully the possible intensification of our land at 584 Orari Station Rd

The property is to be rezoned as RLZ which we support but...

- The property and, in particular, the land fronting Orari Station Rd will be an opportunity lost to the community if not more intensively developed and, if more intensively developed, the land
 - Provides a sound opportunity to present a gradual transition between GRZ and GRUZ zoning
 - Is well located:
 - Immediately adjacent to Geraldine's roading and water infrastructure
 - 3 direct and feasible access points to Geraldine's existing road and water infrastructure
 - Orari Station Rd
 - Tancred St
 - Campbell St
 - Within easy walking distance of amenities
 - 10 minutes to town
 - 3 minutes to High School
 - Already provides a buffer against reverse sensitivity issues with neighbouring agricultural activity
 - Has 6 existing wastewater consents supporting more intensive lifestyle subdivision of the northern portion of the land
 - Complies with s7b of the RMA
- We have not sought expert advice due to cost (and probable futility) given the firmly expressed view of the S42A report writer (during his site visit) that there would be no change to his adopted position
- This submission is a plea for a common sense and logical approach to the PDP zoning for Geraldine that is more closely informed by facts on the ground rather than by total reliance upon the top-down "expert" reports provided thus far.

Considerations

- Geraldine is growing faster than Timaru District as a whole
- Geraldine is already at the 2048 projection made in 2018
- Population projections and, consequently, proposed land rezonings are likely to be inaccurately forecasted and insufficient for Geraldine's needs
- The proposed RLZ zoning for 584 Orari Station Rd appears to be an inefficient use of a scarce resource – Refer RMA s7b
- Note strategic direction (10) of the GMS:
 - Encourage opportunities for higher residential densities in close proximity to the Timaru and Geraldine town centres....
 - provide sufficient residential development capacity to meet demand and household choice as it arises



Conclusions...

- Review the quantum of land to be rezoned in the light of the demonstrated potential for significant growth of the Geraldine settlement
- Reject the S42A report writer's wholesale dismissal of requests for more intensive zoning of land within close proximity and contiguity of the Geraldine settlement
- Permit more intensive development of 584 Orari Station Road, demonstrating compliance with s7b of the RMA, as either:
 1. GRZ (where appropriate), or
 2. within RLZ zoning by providing for a discretionary status for subdivision of RLZ land below 5000m².

