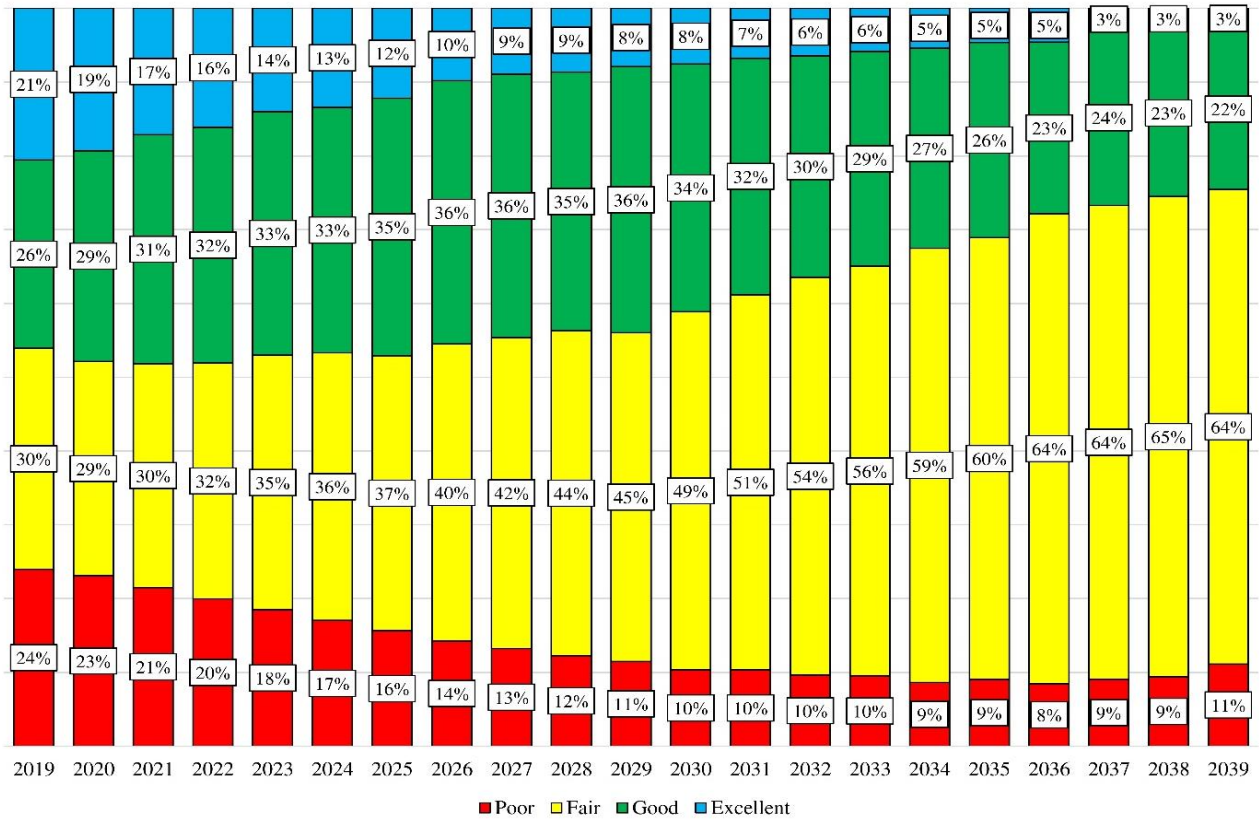
APPENDIX A - Modelling Results and Assumptions

Modelling of Residential Road Network Condition



The results of the model may differ compared to actual program implementation and the following items should be noted when discussing the model's results:

1. An annual deterioration is applied to each road segment such that, without any intervention, a road will deteriorate from excellent to poor condition in 45 years.
2. A construction cost inflation factor of 3.08 per cent is applied annually to the unit rates for each treatment within the model. This incrementally reduces the length of road that can be improved annually. After 25 years of this inflation factor being applied, the cost for a given treatment will have increased to 207 per cent of the cost of that same treatment in Year One.
3. There will always be streets in poor condition with a structure that can support the construction equipment required for the surface treatment.
4. Roads are treated in the order of worst first within each condition category.
5. The treatment assigned to a specific segment within the model is based on the road's condition index. There will be situations in the actual program implementation where a road segment requires a more extensive (or less extensive) treatment compared to what the condition index prescribes. This is determined with detailed site inspections during the design phase.
6. The model is based on the current road condition from the 2019 annual residential road condition inspections.