

Council Policy

Seal Extension Prioritisation

1 Relevant Legislation/Standard

Local Government Act 2002
Local Government Act 1974
Land Transport Act 1988
Public Works Act 1981
Resource Management Act 1991
Council's operative Development Code

2 Interpretation

AADT	means Annual Average Daily Traffic is measured at regular annual (or greater) intervals and adjusted for seasonal effects, using an approved traffic counter which is left in situ for seven days
Carriageway	means the part of the road that carries vehicular traffic
Council	means Western Bay of Plenty District Council
Dust	means dry, solid particles projected into the air and settling slowly under gravity. The particles can range in diameter from <1 micron to 100 microns
Dwelling	means any building or structure used and occupied for human habitation or intended to be so used, but excludes mobile homes or caravans
Landowner	means the registered owners or land administrators shown on the record of title for the affected property (whether General Land or Māori Freehold Land), or in the case of Māori Freehold Land as otherwise directed by the Māori Land Court.
Māori Roadways	means a roadway, laid out by order of the Māori Land Court, over Māori land providing access to other Māori land
Priority List	means the unsealed road priority list based on the policy criteria
Relevant Committee	means the Committee of Council that has the appropriate delegations to make a decision on the priority list under this policy

Council Policy

Seal Extension Prioritisation

Road	has the same meaning as defined in the Local Government Act 1974
Seal	means the water-resistant top layer of a road, covering the pavement layers that make up the road structure
Seal Extension	means the process of permanently sealing an unsealed road with a bituminous chipseal surface. This includes, but is not limited to, pavement construction, road carriageway widening, water table and culvert upgrades, shape correction and carriageway realignment
Urban road	means a road located within a Residential, Commercial or Industrial Zone under the operative District Plan

3 Policy Objectives

To set out, in a clear and concise manner, Council's selection criteria and ranking procedures for prioritising road sections within the Western Bay of Plenty District for seal extension.

4 Background

Council's roading network includes a significant proportion of unsealed roads, and it's considered cost prohibitive for all these roads to be sealed in the short term. Council sets the funding allocation towards seal extensions through its Long Term Plan every three years. This policy provides the basis for prioritising that allocation, for approval by the relevant Committee of Council.

Dust has long been recognised as a problem for people living near to unsealed roads. These problems are known to include:

- dust landing on roofs and contaminating collected drinking water
- dust covering gardens and household property
- dust causing health problems for those with breathing disorders
- dust adversely affecting land use production

For the road users, dust obscures the driver's vision of the road ahead, clogs filters, increases wear on moving parts, covers vehicles and penetrates passenger cabins.

Council Policy

Seal Extension Prioritisation

The most effective method of dust suppression is to seal the road with a bituminous surfacing called chipseal.

5 General Approach

- 5.1 The higher traffic volume unsealed roads shall be assessed utilising the criteria in this policy. The highest ranked road sections shall be included in the priority list which is recommended to the relevant Committee for approval.
- 5.2 In general, the Council will prioritise approximately three years of seal extension at a time and when those roads have largely been completed will undertake the next prioritisation exercise. Once the priority list has been approved by the relevant Committee the roads will be programmed for construction.
- 5.3 Construction timing shall be based on the most cost-effective method of construction and all road sections on the priority list are treated equally. The actual time to complete each list is affected by the cost of each project. The cost of sealing a road varies between \$300,000 and \$750,000 per kilometre depending on topography, road width, safety needs, pavement depth, and future demand.

6 Prioritisation Criteria

- 6.1 The unsealed rural road network shall be divided into sections $\leq 1.0\text{km}$ length, with each section selected on factors such as residential density and traffic volume.

Each section of road, not excluded under 7.1 of this policy, shall be given a ranking score to a maximum of 100 points. To formulate the overall score, two attributes shall be individually scored. The attributes shall be:

- Traffic volumes (50%)
- Dust exposure (50%)

- 6.2 Vehicles travelling on unsealed roads generate dust. In general, the greater amount of traffic on an unsealed road, the greater volume of dust generated. Traffic shall be scored by evaluating the AADT at the beginning of each road section and proportionally adjusting the AADT to generate a relative score ≤ 50 .
- 6.3 The degree of exposure to dust is largely a function of the number of people affected and proximity to the road. Calculation of dust exposure shall be based on a function of dwelling density and the distance that each dwelling is offset from the road.

Council Policy

Seal Extension Prioritisation

Dwelling Density

Dwelling density (units/km) shall be determined for each road section by dividing the number of dwellings (units) by the length of the road section (km).

Dwelling Offset

Research suggests that the amount of dust deposited decreases logarithmically with distance.

The average distance that dwellings are offset from the road shall be calculated and used to determine a score for each road section according to figure 1 below.

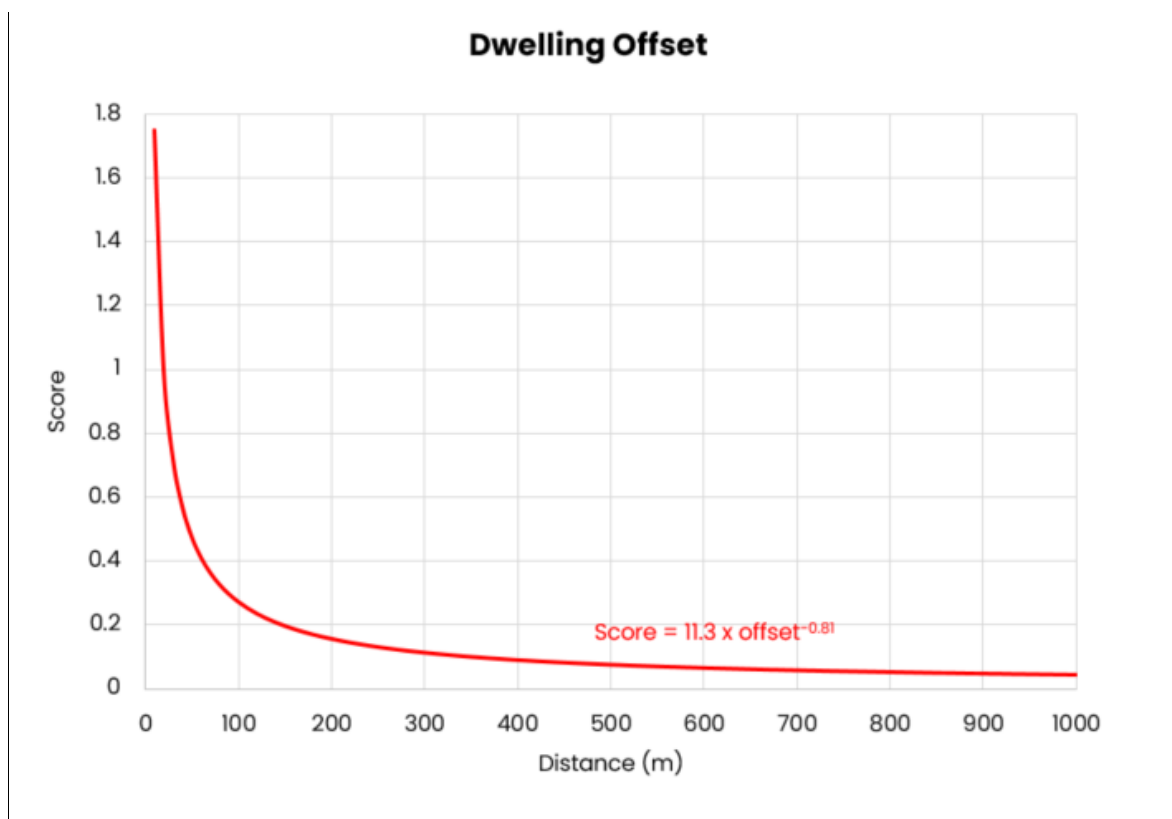


Figure 1. Assessment of dwelling offset score

Dwelling density shall be multiplied by the dwelling offset score to obtain a dust exposure factor for each road section. The dust exposure factor shall be proportionally adjusted to generate a relative dust exposure score ≤ 50 .

- 6.4 The dust exposure score shall be added to the traffic score to obtain a relative total score between 0 and 100 for each road section i.e. ≤ 100 .

Council Policy

Seal Extension Prioritisation

7 Policy procedures

7.1 Consideration of seal extension will be based on the decision criteria set out below:

- a) Māori Roadways will be included for consideration, provided:
 - a. There is no exclusivity of use (as determined through any Māori Land Court Order); and
 - b. All landowners consent in writing to the roadway being sealed and maintained by Council.
- b) Urban roads shall be excluded from consideration.
- c) Road sections shall be ranked according to total score.
- d) Priority shall be given to road sections with the highest rankings.
- e) The construction of a seal extension shall result in no section of unsealed carriageway ≤ 250 metres remaining on the same road i.e., if the remaining unsealed length is less than 250 metres long it shall be included in the seal extension.
- f) Private funding contributions of 50 percent or more will elevate road sections meeting all policy criteria to the three year priority list, provided that they are >200 metres in length or the remaining length of an unsealed road, whichever is the lesser distance.

7.2 A draft priority list will be assessed by staff based on the criteria set in clause 7.1 and presented to the relevant Committee for approval, following the adoption of each Long Term Plan.

7.3 Once approved by the relevant Committee, Council staff will liaise with landowners relating to the road sections on the priority list.

Group	Infrastructure Services	Contact (3rd Tier Manager)	Transportation Manager
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