



Far North
District Council



Koropewa Road Dust Mitigation – Business Case

Prepared by: Curt Martin
Reviewed by: Mark Seakins

22 May 2020
Final



Contents

Executive Summary	1
1. Background	3
2. Strategic Context	3
2.1 Government Policy Statement on Land Transport 2018/19 2027/28 (GPS 2018)	3
2.2 Regional Land Transport Plan (RLTP) 2015 – 2021 (Review for 2018-2021)	4
2.3 Regional Dust from Unsealed Roads Mitigation Framework (June 2014)	6
2.4 Far North District Council Long Term Plan (LTP) 2018-2028.....	6
2.5 Far North District Council Dust Management Policy	7
3. Scale of the Dust Problem within the District.....	8
4. Public Feedback.....	8
4.1 Public Requests	8
5. Problem Definition	8
5.1 Health Effects to Residents	8
5.2 Health Effects to Residents - Koropewa Road	9
6. Benefits and Consequences.....	12
7. Options	12
7.1 Dust Mitigation Options.....	12
7.2 Dust Mitigation for Residents' Health	13
7.3 Preferred Option	13
8. Funding Plan.....	14
8.1 Funding Source.....	14
8.2 Timing of Funding.....	14
9. Investment Assessment.....	14
9.1 General Circular Investment: No 16/04.....	14
9.2 Net Present Value Assessment	14
10. Recommendation	14
Appendix 1 – Northland District Health Board Letter	15
Appendix 2 – Public Request for Services	19
Appendix 3 – Map of the Route, Potential Mitigation Length and House Locations.....	60
Appendix 4 - Dust Assessment using the NZTA General Circular Investment: No 16/04.....	62
Koropewa Road (RP 15-1,675) Dust Risk Assessment	63

Executive Summary

Koropewa Road carries an average of 31 heavy vehicle movements per day and is not a logging route i.e. the heavy vehicle traffic is expected to continue for the foreseeable future. The road is unsealed and the heavy vehicles create significant dust plumes in dry weather which affects residents' health, horticulture and compromises the safety of other road users.

Road strengthening trials with different stabilisation products have been undertaken over several years on other unsealed roads within the district (e.g. Ngapipito and Pipiwai Roads) to try and strengthen the pavements and reduce dust. These have had mixed results due to site specific conditions and material types. In 2015 and 2016, the Far North District Council (FNDC) undertook several dust coat seals on Pipiwai Road to try and mitigate dust effects to local residents. These dust coat seals have not been entirely successful mainly due to the length of the dust coat seals being too short to be effective given the way the dust plume tends to follow the truck along the road.

An assessment using the NZTA *General Circular Investment: No 16/04* was undertaken to determine the significance of the dust risk on this route. This assessment indicated that the Koropewa Road route had a dust risk of Medium/High. The site has a score of 19 and is the highest priority site in the Far North District.

Dust mitigation should be considered on Koropewa Road mainly to reduce health effects of dust to residents. It would also have the benefit of reducing the safety effects of clouds of dust blinding oncoming motorists, and reducing the adverse effects of dust on the adjacent horticulture sensitive areas.

Koropewa Road was identified having dwellings within 80m of the unsealed road as described in the following table:

Location	Route Position	Untreated Length	Dwellings within 80m of Road	Other Features
Koropewa Road	15-1,675	1.66km	24	Horticulture sensitive areas

A key conclusion in the April 2019 report *Health Impacts of PM₁₀ from Unsealed Roads in Northland* (Emission Impossible Ltd) prepared for the Ministry of Health was:

'Overall, the monitoring at Pipiwai Road suggests that there is a significant risk of exceedance of the PM₁₀ NES near unsealed roads with more than 40 trucks per day.'

This report notes the importance of assessing the risk of exceedance of the PM₁₀ NZ National Environmental Standards (NES) near unsealed roads based on **PEAK** daily traffic, and not average daily traffic. The most recent traffic count data for Koropewa Road gives an ADT of 31 trucks (HCVs) per day. This is very similar to the Pipiwai Road ADT of 32 trucks per day that resulted in 101 days with more than 40 trucks per day over the same time period, and 27 exceedances of the PM₁₀ NES.

It is therefore highly likely that there would be a significant number of days on Koropewa Road where the PM₁₀ NES would be exceeded. This strongly indicates that dust mitigation is required to protect the health of the adjacent residents.

Options were considered to address these problems. These options are summarised below:

- Reducing vehicle speeds;
- Grading;
- Wetting the pavement with a watercart;
- Wet, Roll and Grade;

- Dust Suppression;
- Wearing Course with reduced Dust Suppression; and
- Sealing the road.

The only practical options to mitigate dust in the long term were dust suppression and sealing the road.

A Net Present Value (NPV) assessment of these options indicated that sealing the road was the preferred option as shown in the table below:

Location	Preferred Option	Treatment Length	Treatment Cost	PV Costs	NPV Cost of Sealing Option
Koropewa Road Option 1	Sealing	1.66km	\$780,000	\$830,746	+\$368,279
Koropewa Road Option 2	Sealing	1.66km	\$780,000	\$842,829	+\$71,550

It is also important to note that any benefits associated with travel time savings, productivity improvements, vehicle operating cost savings, crash cost savings, and health benefits have not been included in the above NPV analysis. Neither have nuisance effects of dust (including the degradation of amenity values), ecological effects, and agricultural & horticultural effects been considered in the analysis.

It is recommended that NZTA endorses the preferred option to seal Koropewa Road. This option is to provide seal to mitigate the health risks due to dust for residents in dwellings within 80m of the road. This work would involve 1.66km of seal extension and would be funded through Council's Low Cost Low Risk programme at an estimated cost of \$780,000.

1. Background

Koropewa Road is located approximately 1km north-west of Waipapa and predominantly services lifestyle and horticulture properties.

Dust on this unsealed road has caused significant concern for residents for many years and Far North District Council (FNDC) applies dust suppression along this route. An assessment of the traffic volumes against a research site on Pipiwai Road indicates that there is a high probability that there would be a significant number of days on Koropewa Road where the PM₁₀ NES would be exceeded.

Road strengthening trials with different stabilisation products have been undertaken over several years on other unsealed roads within the district (e.g. Ngapipito and Pipiwai Roads) to try and strengthen the pavements and reduce dust. These have had mixed results due to site specific conditions and material types. In 2015 and 2016, FNDC undertook several dust coat seals on Pipiwai Road to try and mitigate dust effects to local residents. These dust coat seals have not been entirely successful mainly due to the length of the dust coat seals being too short to be effective given the way the dust plume tends to follow the trucks along the road.

FNDC has undertaken an assessment of its unsealed network using the NZTA *General Circular Investment: No 16/04* criteria. The top priority sites have been field validated including recent traffic counts, and Koropewa Road is the highest priority site.

2. Strategic Context

2.1 Government Policy Statement on Land Transport 2018/19 2027/28 (GPS 2018)

The GPS 2018 identifies its four strategic priorities as:

- safety
- access
- environment
- value for money

Table 1: Relationships between strategic priorities, national land transport objectives, results and reporting of the GPS 2018 (page 29) includes the following relevant 'Safety' and 'Environment' national land transport objectives:

Safety		
Long-term results (10+ years)	Short to medium term results (3-6+ years)	Reporting measures
National land transport objective: A land transport system that is a safe system, free of death and serious injury		
Significant reduction in deaths and serious injuries	2 State highways and local roads are safer for everyone	<p>Number of people killed or seriously injured (by mode, road type, and Road Controlling Authority) per capita and vehicle kilometres travelled.</p> <p>Investment in safety improvements by road type, road classification and Road Controlling Authority.</p> <p>Improvement in safety ratings of treated roads (before and after intervention).</p>

Environment		
Long-term results (10+ years)	Short to medium term results (3-6+ years)	Reporting measures
National land transport objective: A land transport system that reduces greenhouse gas emissions, as well as adverse effects on the local environment and public health		
Reduce transport's negative effects on the local environment and public health	26 Reduced significant harmful effects of land transport-related air pollution	Tonnes of harmful emissions from land transport (i.e. NO ₂ , PM ₁₀ and PM _{2.5}) emitted per year by region. Apportioned harm (deaths and QALYS) from exposure to air pollutants from land transport by region.

The mitigation of dust effects on heavy freight routes is consistent with these GPS 2018 strategic priorities and objectives.

2.2 Regional Land Transport Plan (RLTP) 2015 – 2021 (Review for 2018-2021)

In February 2017, as part of the review of the Northland RLTP, Northland's councils and the NZ Transport Agency participated in an exercise to better understand and address the current problems with the Northland transport network ('Investment Logic Mapping' or 'ILM'). A number of challenges were identified, grouped into the following three categories (page 9):

- Difficult geology - which restricts the development of sustainable, resilient infrastructure which results in lost opportunities for regional economic development (including tourism).
- Some communities have poor access to employment, education and recreational opportunities. The region better needs to prioritise available investment.
- Proportion of unsealed roads - heavy vehicles are often required to use unsealed roads to access arterial routes which is negatively impacting on the amenity and health of our communities.

The ILM exercise also discussed the relative scale of the problem. Difficult geology and the lost opportunity for regional economic development was seen as the most significant problem, with poor access and the need to prioritise investment, along with the proportion of unsealed roads and negative effects from heavy vehicles, being the number two and number three problems respectively.

The RLTP summarises the contributing factors to the key problems (page 10) including:

Proportion of unsealed roads and associated adverse effects from heavy vehicles:

- As stated, 60% of Northland's road network is unsealed. In recent years an uptake in forestry harvesting has led to increased numbers of heavy vehicles using unsealed roads in Northland to access state highways and Northport.
- Regular summer roadside monitoring of selected locations by the regional council have found that levels of dust are present that can cause negative health and environmental effects. It is difficult to quantify the scale of the problem however work is ongoing to get a fuller picture of the hotspots.
- Northland's unsealed roads are likely to have relatively weak subgrades, and coupled with significant freight volumes and dry summers, dust can be a significant issue.
- The adverse effects are three-fold: health effects, through the exacerbation of respiratory conditions particularly in the very young and elderly populations; environmental effects, through a negative effect on amenity and contamination of soil and water; safety, as the dust thrown up by heavy vehicles can substantially reduce visibility and contribute to accidents.

The RLTP's **Regional Priority 6: Reducing the environmental effects from the transport network** (page 44) states:

Dust on unsealed roads - what are the problems?

In Northland there are 5,877km of local roads, of which only 2,397km (or 40%) are sealed.

As the movement of vehicles (particularly heavy vehicles) using unsealed roads continues to grow, so does the number of dust related problems.

Dust from unsealed roads can adversely affect personal health and wellbeing and impact on crops, native vegetation, animal health and water quality. These problems can be exacerbated by prolonged periods of little rain and an increase in heavy vehicle use. This has resulted in affected communities approaching the relevant approved road controlling authorities with a request to remedy the situation.

There is growing concern from residents on unsealed roads (not just forestry routes but developing areas) to seal their roads or at least their property frontages as dust is becoming more of a topic of discussion. This is to reduce the impacts of dust on residents' health and to improve road safety. Councils have received numerous complaints over the years to either seal a road or to undertake dust suppression.

NZTA research

NZTA has commissioned 'road research report 590', titled "Impacts of exposure to dust from unsealed roads". This report gave good grounds to review the investment assessment process to consider the preferred approach to investment in dust mitigation.

The report has provided the basis for a methodology to pragmatically assess the level of health risk associated with individual unsealed roads.

In 2017, Local Government New Zealand and the Road Controlling Authorities Forum established a road dust working group which is developing a case to prioritise mitigation and investment.

All the road controlling authorities and the Northland Regional Council recognise there are nuisance and potentially health-related issues associated with dust from unsealed roads. However, the immediate solutions of dust suppressants or road sealing require significant financial investment. Given the scale of the region-wide dust problem, it is more practical to first address the worst affected areas using a clear and consistent method to identify priority areas and preferred mitigation options.

Where are the problems?

Far North District

An assessment has been undertaken of the highest risk roads for dust using the Dust Risk Matrix from NZTA's General Circular 16/04. An extract from this assessment is shown below. There are 374km of unsealed roads with a dust risk score of 12 or more from which there are 711 houses exposed to a potential dust risk.

What is being done to address the issue? (page 48)

Far North District

A business case has been developed and approved to fund the sealing of Pipiwai and Ngapipito Roads where dust from forestry activities has been an ongoing issue for resident's health. The work here set the foundation for continued investigation and analysis of the district's roads to determine the levels of investment and quantum of work needed to address this issue. This will be an ongoing body of work to develop business cases that not only attract the subsidy but also justify the argument that a given road should have a treatment done.

Options assessed in the 2018/21 Transport Activity Management Plan (AMP) are:

- Mix of dust coat seals and suppression - this would be able to be implemented immediately, this will see some of the network treated and the concerns of the public and short term dust impacts addressed.
- Seal extensions - longer term approach would be to invest in the pavements of the high scoring dust risk affected roads with the final outcome being to seal these appropriately. This may include single lane seals, geofabric membrane backed seal chips and full width carriageway upgrades. Assessments need to be undertaken to determine volumes of traffic so the right investment decision can be made in the future.

Overall it is expected that there will be a decrease in the number of dwellings affected by PM₁₀ dust and there will be an increase in the level of satisfaction of the Council's unsealed road network.

What funding has been allocated or applied for? (page 49)

Far North District Council

\$1 million a year per year has been applied for dust sealing of district roads for customer/community health and safety.

Under which category has the funding been applied for and the reasons why this funding category is being used. (page 50)

Subsidy funding has been applied for under NZTA's Dust Risk Matrix from their General Circular 16/04 which defines which funding categories are applicable.

Far North District Council

Funding for these activities has been applied for under NZTA work category WC341 Low Cost/Low Risk.

Dust suppression: Work category 112 Unsealed Pavement Maintenance.

2.3 Regional Dust from Unsealed Roads Mitigation Framework (June 2014)

The Regional Dust from Unsealed Roads Mitigation Framework (the Framework) was a joint document prepared with assistance from the NRC, WDC, FNDC, KDC, NZTA and the Northland DHB. It describes the impacts of dust and has a framework to prioritise sites and mitigate dust effects.

The Framework identified Ngapipito Road and Pipiwai Road as the highest priority sites having dust issues that needed addressing and proposed a number of 100m long dust coat seals in front of houses to mitigate the dust nuisance. House frontage seals were constructed in 2016 on Pipiwai Road in line with the Framework but were not entirely successful in controlling dust to residences on these routes. As a result the two affected sections of Pipiwai Road (total 3.7km) were sealed, and furthermore, two sections of Ngapipito Road (total 6.4km) were also sealed on the basis of the Pipiwai Road experience.

2.4 Far North District Council Long Term Plan (LTP) 2018-2028

The Far North District Council's LTP (that includes its 30 Year Infrastructure Strategy) identifies dust nuisance from unsealed roads as being a Significant Negative Effect of the transport system.

The following projects, work activities, key issues and significant effects are identified in the LTP:

Major capital projects (page 31) - District-wide dust mitigation totalling \$14 million.

Our environment and heritage (page 40) - Our air quality is generally good but dust from heavy vehicles travelling on unsealed roads is a problem in rural communities during dry summer periods.

Asset performance (page 55) - The unsealed network, however, is an ongoing issue. There are considerable concerns around the possible health implications of dust generated by traffic, and pressure to mitigate this through sealing or the application of dust suppression measures. Some roads on the unsealed network are being adversely affected by the forestry industry and will require strategic maintenance to improve them.

Key issues (page 56) - Logging and dairy freight: Logging and dairy truck movements on selected routes pose problems both for residents and businesses moving the goods. The volume of traffic associated with these activities cause accelerated damage to pavements and surfaces, dust which poses health issues for residents and damage or failures of other parts of the asset. The need to move freight efficiently and support economic growth results in additional work to manage the damage caused and alleviate the problems faced by residents.

Summary of significant expenditure (page 61)- Dust seals - Sealing of critical risk roads that pose a threat to public health through dust generation - Years 1-10 - \$11 million.

Significant negative effects (page 98) - Rooding activities may contribute to a number of negative environmental effects including (but not limited to) flooding effects, air quality, noise, safety and issues relating to dust and heavy traffic. Activities are therefore undertaken in accordance with environmental standards and, where appropriate, resource consent conditions to ensure that negative impacts on the environment are avoided, remedied or appropriately mitigated.

Dust nuisance is recognised as a significant effect, particularly brought about by the level of forestry traffic on the Far North's rooding network. Council continues to maintain relationships with the forestry industry while monitoring the effects of dust on our communities. We aim to apply dust suppression solutions and repair deteriorated roads as funding allows and on a priority basis while the Northland Transportation Alliance works with the NZTA to develop long-term strategies for the management of this issue.

2.5 Far North District Council Dust Management Policy

The Far North District Council has developed a Dust Management Policy to identify and manage sites with high levels of dust. The policy identifies potential treatments for dusty sites including:

- a. Road Surface Treatments:
 - Full seal extension
 - Seal road frontage
 - Apply an approved dust suppression product
 - Water the road
 - Treat the road surface
- b. Road Users Management:
 - Reduce traffic by using an alternative route
 - Reduce speed
- c. Adjoining Property Enhancements:
 - Slow the wind – planting of shelter belts
 - Reduce dust entering the home and water supply

3. Scale of the Dust Problem within the District

An assessment of the highest priority unsealed road sites in the district was undertaken using the NZTA *General Circular Investment: No16/04* criteria and the results are shown in the table below:

Road Name	Location	Road ID	Start	End	Length	16/04 SCORE HCV 5 day AADT	16/04 SCORE HCV Speed	16/04 SCORE LDV 5 day AADT	16/04 SCORE Speed of LDVs (Est)	16/04 SCORE Houses / km (80m from road)	16/04 SCORE sensitive locations/ km schools, marae, or hospitals	16/04 SCORE Ecological Areas / km	16/04 SCORE Horticul- tural areas / km	16/04 SCORE Location of roadway	16/04 SCORE Frequency of rain days (>5mm)	16/04 SCORE Longevity of logging route use	SCORE NZTA Circular 16/04 OVERALL	PRIORITY Circular 16/04 Rating
Koropewa Road		1872	15	1,833	1,818	4	2	2	1	5	0	0	1	1	1	2	19	1
Waimanoni Road		2499	0	615	615	3	2	1	1	5	1	0	1	1	2	2	19	2
Church Road	KAITAIA	1596	10,484	15,017	4,533	5	2	1	2	3	0	0	1	1	2	2	19	3
Parapara Road		2134	0	2,270	2,270	3	2	1	2	3	0	1	1	2	2	2	19	4
Arawhata Road		3057	285	1,329	1,044	4	2	1	2	5	0	0	0	1	2	2	19	5
Kaimaumau Road		1838	8,759	9,933	1,174	4	2	1	2	5	0	0	0	1	2	2	19	6
Te Tii Road		2431	0	601	601	4	2	1	2	5	0	0	0	1	2	2	19	7
West Coast Road	KOHUKOHU	2543	25,167	27,880	2,713	4	2	1	2	3	1	0	0	1	1	2	17	8
Aurere Beach Road		1510	0	543	543	3	2	1	2	5	0	0	0	1	2	2	18	9
Whakataha Road		2551	0	1,690	1,690	3	2	1	2	5	1	0	1	1	0	2	18	10

This indicates that Koropewa Road that is being considered in this business case is a high priority site in the Far North District.

4. Public Feedback

4.1 Public Requests

Public requests for dust relief on Koropewa Road have been received by Council for many years. The requests reported to Council have been included in Appendix 2.

The key concerns identified by the public are:

- That heavy vehicle traffic is generating a lot of dust.
- Concern about the health effects of the dust on residents.
- Grading required.
- Poor state of the road (potholes, corrugations, & lack of metal)
- That vehicle speeds should be reduced to limit dust and improve safety.
- Road should be sealed.
- Request for dust suppressant.

5 Problem Definition

Dust mitigation is being considered on Koropewa Road primarily to reduce health effects of dust to residents. It would also have the benefit of reducing the safety effects of clouds of dust blinding oncoming motorists, mitigating the adverse effects of dust on the horticulture, and providing a safer driving surface.

5.1 Health Effects to Residents

Dust from unsealed roads, and specifically PM₁₀ dust, is a known health hazard to residents. In July 2014, the Northland District Health Board provided a letter in support of dust mitigation on high volume logging/trucking routes (see Appendix 1). This letter describes some of the health hazards from PM₁₀ dust as follows:

"A large US study showed that for each 10µg/m³ increase in fine particulate air pollution there was a 6% increase in all-cause mortality, a 9% increase in cardiopulmonary mortality and a 14% increase of lung cancer, while a recent European study showed an 18% increase in lung cancer for each 5µg/m³ increase in PM_{2.5} concentration."

"The 2012 Health and Air Pollution in New Zealand Study estimated that about 1,170 New Zealanders die prematurely from PM₁₀ emissions produced by human activities each year. Wood and coal burning in winter contribute most to PM₁₀ emissions in NZ, with most exceedances occurring in South Island urban centres. However, studies from the United States suggest that unsealed roads are responsible for 36% of emitted annual PM₁₀ emissions there. New Zealand has a similar proportion of unsealed roads (35%) and less industry, so it is likely that unsealed road dust may contribute significantly more to overall PM₁₀ emissions here, particularly in Northland where there are substantial logging operations."

The NZ National Environmental Standards (NES) for Air Quality has set a 24-hour average limit on exposure to PM₁₀ particles of 50µg/m³ with one permitted exceedance in any 12-month period.

The NZTA Research Report 590 *Impacts of exposure to dust from unsealed roads* [April 2017] identifies that all people living in dwellings within 80m of an unsealed road are at risk from dust-related health effects. Koropewa Road has dwellings within 80m of an unsealed road and these are described in the following table along with the number of dwellings:

Location	Route Position	Untreated Length	Dwellings within 80m of Road	Other Features
Koropewa Road	15-1,675	1.66km	24	Horticulture sensitive areas

The April 2019 report *Health Impacts of PM₁₀ from Unsealed Roads in Northland* (Emission Impossible Ltd) prepared for the Ministry of Health has three main objectives:

- Summarise the findings of an ambient air quality monitoring study carried out in Northland near an unsealed road for the year ending 31 May 2018;
- Investigate PM₁₀ exposure from unsealed roads as a function of traffic and meteorology; and
- Undertake an assessment, with sensitivity analysis, of the likely health impacts of PM₁₀ from unsealed roads in Northland

A key conclusion in the report was:

'Overall, the monitoring at Pipiwai Road suggests that there is a significant risk of exceedance of the PM₁₀ NES near unsealed roads with more than 40 trucks per day.'

The report also notes that:

'Sensitive populations – Māori are known to be disproportionately impacted by air pollution. Adoption of a Māori-specific exposure-response relationship increased chronic health impacts by 54%.'

and that:

'Rural Northland has a relatively high (22%) portion of the population that are Māori so this is an important issue.'

5.2 Health Effects to Residents - Koropewa Road

Koropewa Road was assessed for dust risk using the NZTA *General Circular Investment: No16/04* which is based on the findings of the NZTA Research Report 590 *Impacts of exposure to dust from unsealed roads* [April 2017].

This risk assessment has identified the following after carrying out a site specific assessment:

Site	Dust Risk Score	Dust Risk
Koropewa Road	19	Medium/High

The *Health Impacts of PM₁₀ from Unsealed Roads in Northland* (Emission Impossible Ltd) report notes the importance of assessing the risk of exceedance of the PM₁₀ NES near unsealed roads based on **PEAK** daily traffic, and not average daily traffic:

'It should be noted that this threshold is based on peak daily traffic, not annual average daily traffic. For example, over the monitoring period at Pipiwai Road, the annual average daily traffic for trucks was 32. However, over the same time period there were 101 days with more than 40 trucks per day and there were 27 exceedances of the PM₁₀ NES.'

The most recent traffic count data for Koropewa Road (28 January 2019) gives an ADT of 31 trucks (HCVs) per day. This is very similar to the Pipiwai Road ADT of 32 trucks per day that resulted in 101 days with more than 40 trucks per day over the same time period, and 27 exceedances of the PM₁₀ NES.

It is therefore highly likely that there would be a significant number of days on Koropewa Road where there would be more than 40 trucks per day with associated exceedances of the PM₁₀ NES. This strongly indicates that dust mitigation is required to protect the health of the adjacent residents.

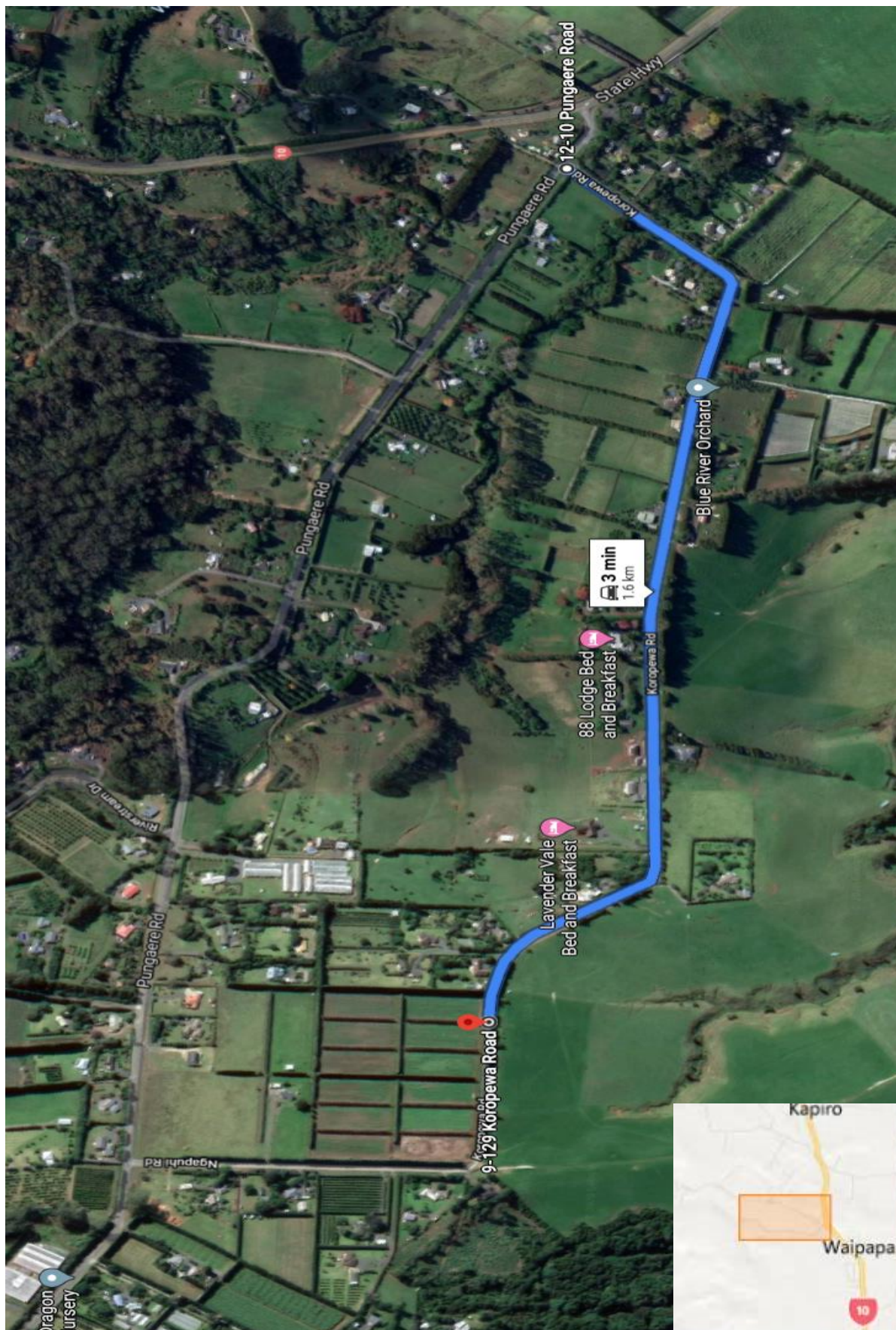
The following table provides a comparison with FNDC roads previously approved for sealing by NZTA within the past four years, Mataraua Road (NZTA Circular 590 *Impacts of exposure to dust from unsealed roads*), and Pipiwai Road (Emission Impossible Ltd report *Health Impacts of PM₁₀ from Unsealed Roads in Northland*):

Site	Treatment Length	Houses per km	Traffic Volume	HCV Volume	Dust Risk Score	Notes
Ngapipito Road Site 1	2.30km	2	133	20	17	
Ngapipito Road Site 2	4.11km	2	220	75	20	
Pipiwai Road Site 1	1.29km	1	100	39	16	
Pipiwai Road Site 2	2.40km	2	160	69	18	
Wright/McCardle Roads	2.52km	1	155	93	16	
Mataraua Road (NZTA Circular 590)		8-10	>300	>50	20	Dust Risk Score adjusted to exclude score of 2 for 'Nuisance effects for residents (complaints/year)'
Pipiwai Road (Emission Impossible Ltd report test site)			117	32	18	One exceedance of the 24-hour NES for PM ₁₀ is permitted within any 12-month period
Koropewa Road	1.66km	14	389	31	19	Dust Risk Score adjusted to include score of 2 for 'Longevity'

Koropewa Road ranks well when compared with these roads, and noting that it has a significantly greater number of dwellings per kilometre than Ngapipito Road, Pipiwai Road, and Wright/McCardle Roads.



The following map shows the location of Koropewa Road:



6 Benefits and Consequences

The benefits and consequences of addressing the problems identified in Section 5 are shown in the following table:

Problem	Benefits of Addressing the Problem	Consequences of <u>Not</u> Addressing the Problem
<ul style="list-style-type: none"> • Health effects of dust on residents. • Health effects of dust on horticulture. • Safety effects of dust on road users. 	<ul style="list-style-type: none"> • Improved health of residents. • Improved quality of horticulture produce, and plant growth rates and health. • Improved visibility for road users. 	<ul style="list-style-type: none"> • Residents' health will suffer. • Downgrading and rejection of produce, reduced photosynthesis, growth rates, plant health, & pesticide effectiveness, and increased incidence of pests and diseases. • Adverse driving conditions remain.

7 Options

7.1 Dust Mitigation Options

There are a range of dust mitigation options that could be considered as follows:

- Reducing vehicle speeds;
- Grading;
- Wetting the pavement with a watercart;
- Wet, Roll and Grade;
- Dust Suppression;
- Wearing Course with reduced Dust Suppression; and
- Sealing the road.

These options are described below.

Reducing vehicle speeds could be encouraged by installing dust hazard signs or voluntary speed limits. However, this is not considered practical as it would be difficult to enforce and would set a precedent for the other 1,650km of unsealed road throughout the District.

Grading was considered but is not really an option in dry conditions as this loosens the top surface which just creates more dust, as well as a poorer driving surface, corrugations and potholes due to the unbound material.

Wetting the pavement with a watercart would be very expensive as it would require the water cart to be constantly running over the road to wet it down. A day of watercarting would be in the order of \$1,000/day for one water cart which could probably wet down about 2-3km for each water cart. Over a 6 month summer period, this would equate to \$72,000/km/year.

The option to do a wet, roll and grade involves wetting the pavement, grading it and rolling it to form a tight surface. This treatment would only last about a week before dust becomes an issue again. The cost of this treatment is approximately \$2,825/week/km or \$73,450/km/year.

Both the watercarting and wet, roll and grade options assume that water can be extracted from local streams. Often during the peak summer dry season, NRC prohibits water being taken from local streams. So during these periods this water would need to be sourced from Council water supplies which would markedly increase costs (assuming that there are no Council water restrictions also in place which are indeed common in the Far North District). This is likely to double the costs of watercarting. If Council also had water restrictions, then watercarting or wet, roll and grades would not be feasible unless water could be sourced elsewhere. Given that Northland has

had numerous official droughts in the last decade, this would not be a reliable treatment method.

Both of these options are about the same cost or higher than dust suppression and could even be more expensive if water needs to be supplied by watertanker from town. For these reasons, watercarting and wet, roll and grade options have not been considered further.

An assessment using NZTA Research Report 590 (see Appendix 4) identified that the following mitigation options are appropriate for this site:

- Sealing the road;
- Dust suppression using Magnesium Chloride; and
- Applying a metal wearing course with reduced dust suppression.

Based on the feedback from the FNDC metal strengthening trials (5 different products trialled) which were started in November 2016, the preferred dust suppression is Gravel Lock. The estimated costs of Gravel Lock are:

- Gravel Lock (a Magnesium Chloride based product) - \$12,660/km x 1 initial application/year + \$7,080/km x 2 top-up applications/year = \$48,812/km/year.

The last option, sealing, is a suitable option for the route but has a high upfront cost. Both the sealing and dust suppression options are assessed in the following section.

7.2 Dust Mitigation for Residents' Health

The treatment length expected to be required to mitigate the effects of dust on local residents by providing increased mitigation to houses that are 80m or less from the road are shown on the map in Appendix 3.

The estimated cost and Net Present Value (NPV) analysis of the site and each mitigation option are described in the table below:

Treatment Option	Main Problem Addressed	Treatment Length	Treatment Cost	PV Costs	NPV Cost of Sealing Option
Option 1 - Dust Suppression	Residents' health	1.66km	\$44,521/year	\$1,199,025	N/A
Option 2 - Wearing Course with Reduced Dust Suppression	Residents' health	1.66km	\$21,016/year	\$914,379	N/A
Sealing	Residents' health	1.66km	\$780,000	Option 1 - \$830,746 Option 2 - \$842,829	Option 1: +\$368,279 Option 2: +\$71,550

The NPV analysis shows that sealing has a positive NPV and is therefore preferable over dust suppression.

7.3 Preferred Option

The preferred option is to seal the road to provide dust mitigation. The estimated cost of this work is \$780,000.

8 Funding Plan

8.1 Funding Source

This work would be undertaken through Council's Low Cost Low Risk programme.

8.2 Timing of Funding

If approved the physical works would be undertaken during the 2020/21 financial year.

9 Investment Assessment

9.1 General Circular Investment: No 16/04

The dust risk for the site has been assessed in accordance with *General Circular Investment: No 16/04* as follows:

Site	Dust Risk	Investment Assessment
Koropewa Road	19	Recommended that dust mitigation is eligible for NZTA funding

9.2 Net Present Value Assessment

A net present value (NPV) assessment has been undertaken for the site. The option to seal the road has positive NPVs when compared to using dust suppression (Option 1), or a wearing course with reduced dust suppression (Option 2) to mitigate the dust impacts. This is shown in the following table:

Location	Preferred Option	Treatment Length	Treatment Cost	PV Costs	NPV Cost of Sealing Option
Koropewa Road Option 1	Sealing	1.66km	\$780,000	\$830,746	+\$368,279
Koropewa Road Option 2	Sealing	1.66km	\$780,000	\$842,829	+\$71,550

It is important to note that any benefits associated with travel time savings, productivity improvements, vehicle operating cost savings, crash cost savings, and health benefits have not been included in the above NPV analysis. Neither have nuisance effects of dust (including the degradation of amenity values), ecological effects, and agricultural & horticultural effects been considered in the analysis.

Section 2.2.1 (Human health effects) of NZTA Research Report 590 '*Impacts of exposure to dust from unsealed roads*' [April 2017] states that 'the health and air pollution in New Zealand (HAPINZ) study (Kuschel et al 2012) has produced a Health effects model, which allows estimation of public health outcomes and associated social costs due to exposure to PM₁₀, and that the 'model is applied in chapter 6 of this report to quantify the cost of health impacts of dust from unpaved roads'. Section 6.4 (Benefit-to-cost ratio of dust mitigation) states the benefit/cost ratio (mitigation vs no mitigation) of a sealed road surface (40-year life) versus an unsealed & untreated road is 1.9 highlighting the significant health benefits incurred when sealing a road.

10 Recommendation

It is recommended that NZTA endorses the preferred option to seal Koropewa Road. This option is to provide seal to mitigate the health risks due to dust for residents in dwellings within 80m of the road. This work would involve 1.66km of seal extension and would be funded through Council's Low Cost Low Risk programme at an estimated cost of \$780,000.



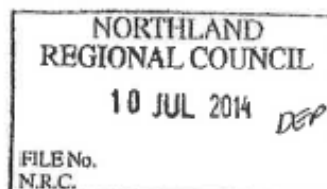
Far North
District Council

Appendix 1 – Northland District Health Board Letter



4 July 2014

Malcolm Nicolson
Chief Executive Officer
Northland Regional Council
Private Bag 9021
Whangarei Mail Centre
WHANGAREI 0148



Dear Malcolm

Adverse Health Effects from Road Dust

Thank you for your letter of 25 June 2014 requesting evidence to support funding applications for unsealed roads in Northland.

Northland District Health Board (DHB) supports Northland Regional Council's (NRC) efforts to find a lasting solution to the problem of high levels of road dust on priority high-volume logging/trucking roads, as well as the other road safety hazards associated with this.

Although the nuisance and irritant effects of airborne dust are the most evident adverse effect of road dust, the more important health impacts are predominantly related to exposure to particulate matter less than 10 microns (PM_{10}), rather than from the visible dust particles. PM_{10} and smaller sized particles are important because they are small enough to pass through the nose and throat, and deposit in the lower airways and alveoli of the lung.

The International Agency for Research on Cancer (IARC) has recently (October 2013) classified outdoor air pollution, and particulate matter specifically, as a Group 1 carcinogen.¹ A large US study showed that for each $10 \mu g/m^3$ increase in fine particulate air pollution there was a 6% increase in all-cause mortality, a 9% increase in cardiopulmonary mortality and a 14% increase in risk of lung cancer, while a recent European study showed an 18% increase in lung cancer incidence for each $5 \mu g/m^3$ increase in $PM_{2.5}$ concentration.² There is also good evidence that improvements in air quality can lead to quite rapid improvement in health at a population level (within a few years).³

The 2012 Health and Air Pollution in New Zealand Study⁴ estimated that about 1170 New Zealanders die prematurely from PM_{10} emissions produced by human activities each year. Wood and coal burning in winter contribute most to PM_{10} emissions in NZ, with most exceedances occurring in winter in South Island urban centres. However studies from the United States suggest that unsealed roads are responsible for 36% of emitted annual PM_{10} emissions there.⁵ New Zealand has a similar proportion of unsealed roads (35%) and less industry, so it is likely that unsealed road dust may contribute significantly more to overall PM_{10} emissions here, particularly in Northland where there are substantial logging operations.



The health effects of PM₁₀ particles are predominantly respiratory and cardiovascular, and may be sub-clinical (for example, a reduction in measured lung function) or symptomatic, including cough, chronic bronchitis, exacerbations of asthma and post-neonatal (infants from one month to one year) respiratory mortality. The severe health impacts of PM₁₀ are unevenly distributed, with infants, young children, those who already have respiratory or cardiovascular diseases and the elderly most affected. There is no known "threshold" for these effects; that is, increasing exposure is associated with increased frequency of effects and there is no apparent threshold dose below which no effects occur.^{vi}

In the Northland context, exposure to road dust and thus potentially high levels of PM₁₀ is intermittent (mainly over the drier summer months, although this can be quite prolonged), and impacts are across scattered, small rural populations. Monitoring of PM₁₀ has been minimal, so the levels of exposure long-term are not possible to quantify - although the data that does exist suggests there are significant exceedances of the national environmental standard¹ and WHO guidelines for PM₁₀ in the affected areas.^{vii}

In the affected areas of Northland, a substantial proportion of the communities affected are already highly vulnerable, being in areas of relative socioeconomic deprivation, predominantly Māori, and with higher proportions of children and elderly than the national average. The health status of Māori children in Northland is poor by national standards, with high rates of asthma (it is estimated that nearly 9000 children under 15 years in Northland are affected by asthma, with higher rates in Māori and in lower socioeconomic communities) and respiratory diseases such as bronchiolitis. Hospital admissions due to respiratory conditions are 2-3 times higher for Māori children compared with non-Māori in Northland.^{viii}

Chronic obstructive pulmonary disease (COPD) in adults is also nearly two times higher in Māori adults than non-Māori, and affects Māori at earlier ages. Road dust and PM₁₀ exposure is known to exacerbate this common condition, which affects about 15% of adults over 45 years and has a huge impact on quality of life, with progressive shortness of breath and decreased mobility.^{ix}

In 2003, the Asthma Foundation estimated the health sector costs alone per year per COPD patient were \$2566, not including loss of income to the patient, loss of quality life and costs to whānau, etc.⁹ A hospital admission for asthma in a child costs approximately \$1200-1500 per day. However the true cost of these illnesses to the individual, their family and the economy is considerably greater, as they involve loss of quality of life, loss of educational and employment opportunities, and productivity losses. Given that exposure to road dust PM₁₀ occurs over prolonged periods, and affects highly susceptible communities who already have poor health status, the economic costs of the health impacts of road dust in Northland are likely to be significant, though currently unquantifiable.

¹ The national air quality standards for PM₁₀ are set at a daily threshold of 50µg/m³ as a 24hr mean and an annual average of 20µg/m³. Dunedin is the only NZ city consistently exceeding the annual threshold. A level of >50µg/m³ is worse than being in all day in traffic on a still day in Queen St (Auckland), or similar to being in Invercargill on a cold winter's night with smoke from wood/coal burners.



In summary, the populations exposed in Northland to high levels of PM₁₀ from road dust are relatively small and dispersed, but also highly vulnerable. It is not possible to determine the proportion of respiratory and other ill-health outcomes in Northland attributable to road dust exposure, given the lack of exposure monitoring and small populations affected, but based on the available international evidence and expert advice, we consider that the impact of prolonged levels of high PM₁₀ exposure from road dust is a significant public health risk for these exposed communities. We also consider that there are important road safety hazards created both by the high volume of trucks and visibility issues from dust, especially for school children on school bus routes and local residents that need to be addressed.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Nick Chamberlain'.

Dr Nick Chamberlain
Chief Executive

¹ Loomis D., Grosse Y., Lauby-Secretan B., et al on behalf of the IARC Monograph Working Group IARC Lyon France The carcinogenicity of outdoor air pollution The Lancet Oncology 14:3 pg 1262 - 1283, December 2013 Published Online: 24 October 2013 doi:10.1016/S1470-2045(13)70487-X

² Langrish J., Mills N. Air Pollution and Mortality in Europe Lancet 2014 383:758-60. Published online 9/12/2013 [http://dx.doi.org/10.1016/S0140-6736\(13\)62570-2](http://dx.doi.org/10.1016/S0140-6736(13)62570-2)

³ WHO EURO Regional Office: Health Impacts of Particulate Matter WHO 2013. Available at: http://www.euro.who.int/_data/assets/pdf_file/0006/189051/Health-effects-of-particulate-matter-final-Eng.pdf

⁴ Kuschel G, Metcalfe J, Wilton E, Guria J, Hales S, Rolfe K, Woodward A. 2012. *Updated Health and Air Pollution In New Zealand Study. Summary Report*. Wellington: Health Research Council,

⁵ US EPA National Air Pollutant Emission Trends 100-1998 Office of Air Quality and Planning Standards US Environmental Protection Agency Table A-5) <http://www.epa.gov/ttnchie1/trends/trends98/trends98.pdf>

⁶ World Health Organisation 2005 Health Effects of transport-related air pollution: summary for policy makers WHO Copenhagen Denmark 2005.

⁷ Northland Regional Council Ambient PM₁₀ Monitoring adjacent to Four Unsealed Roads in Northland.NRC Whangarei May 2013

⁸ Northland DHB hospital discharges data, NDHB 201-2013.

⁹ Asthma and Respiratory Foundation of New Zealand The Burden of COPD in New Zealand. Asthma and Respiratory Foundation of New Zealand 2003.



Far North
District Council

Appendix 2 – Public Request for Services



Received Date	RFS No.	Request Type Description	Note Description
16-Jun-2000 01-Apr-2005	104536	DO NOT USE - to be deactivated POST LIVE	AFTER TURNING ONTO KOROPEWA ROAD THE ROAD TURNS A CORNER ONTO A STRAIGHT- THIS PIECE OF ROAD IS VERY MUDDY, MUDDY AND WET- NEEDS METAL ON IT
05-Feb-2001 01-Apr-2005	109613	DO NOT USE - Roads- Metal - Maintenance - Potholes	WHOLE OF KOROPEWA ROAD IS VERY CORROGATED-DANGEROUS AS MANY PEOPLE DRIVING ON OTHER SIDE OF ROAD ESPECIALLY NEAR CORNERS-SAFETY ISSUE-NEEDS SORTING
26-Jun-2001 01-Apr-2005	113988	DO NOT USE - Roads- Metal - Maintenance - Potholes	MRS ALDRIDICH PHONED & ADVISED THAT KOROPEWA ROAD IS VERY SLIPPERY & DANGEROUS-NEEDS METALLING ESPECIALLY ALONG STRAIGHT AFTER 1ST CORNER
18-Jun-2002 01-Apr-2005	127550	DO NOT USE - Roads- Metal - Maintenance - Potholes	Koropewa Road is lacking metal, has potholes and is just generally in need of maintenance.
15-Oct-2002 01-Apr-2005	132917	Roads - Signs	The Aldrich's would like some signs saying "dust nuisance" put along Koropewa road. They think it may encourage people to slow down & reduce the dust problem
02-May-2003 01-Apr-2005	141098	DO NOT USE - Roads- Metal - Maintenance - Potholes	Koropewa Road needs graded and metal very badly
28-Aug-2003 01-Apr-2005	146203	DO NOT USE - Roads- Metal - Maintenance - Potholes	KOROPEWA ROAD NEEDS GRADED. POT HOLES MAY NEED FILLED. PLEASE INVESTIGATE.
05-Apr-2005 12-Apr-2005	3313642	DO NOT USE - Roads- Metal - Maintenance - Potholes	Koropewa Road badly corrugated - potholes as well. Needs grading.
06-Sep-2005 12-Sep-2005	3321343	DO NOT USE - Roads- Rural Drainage - Stormwater	Mr Routledge of 148 Koropewa Road, called in to say that when there is a heavy rain event water from the road diverts directly down his driveway causing scouring and generally making a mess on his property. Please can this be looked into. His contact number is 09 407 8902.
19-Oct-2005 20-Oct-2005	3323209	DO NOT USE - Roads- Metal - Maintenance - Potholes	Tom Aldrich - 09 4077928 - There are potholes on road - and the road needs grading. The road is Koropewa Road - Kerikeri
07-Nov-2005 09-Nov-2005	3324042	DO NOT USE - Roads- Metal - Maintenance - Potholes	Tom Aldrich - 09 407 7928 - Caller has asked if the Pot holes on Koropewa Road - Kerikeri could be filled ASAP these have become quite dangerous.



Received Date	RFS No.	Request Type Description	Note Description
07-Nov-2005 09-Nov-2005		DO NOT USE - Roads- Metal - Maintenance - Potholes	Hand patching is being carried out at present and Koropewa Road will be included by 14.11.05. Please close
12-Jul-2006 12-Jul-2006	3335285	DO NOT USE - Roads- Metal - Maintenance - Potholes	Louise Hampson on 4017476 reports Koropewa road off Pungere Road Wapapa needs some metal on it as is all mud please can this be maintained. Please investigate/advise. Thanks
12-Jul-2006 12-Jul-2006	3335286	DO NOT USE - Roads- Metal - Maintenance - Potholes	Louise Hansen on 4017476 reports on the corner of Ngapuhi and Koropewa road this is subsiding the culvert is blocked and the water is eating away at the road. Please investigate and advise. Thanks
12-Jan-2007 16-Jan-2007	3346261	DO NOT USE - Roads- Metal - Maintenance - Potholes	<p>From: ask.us@fndc.govt.nz Sent: Friday, 12 January 2007 4:23 p.m. To: 'louise.hansen@xtra.co.nz' Cc: ask.us@fndc.govt.nz Subject: REF - RFS 3346261 - RDGRR - RFS from website Importance: High</p> <p>Good afternoon.</p> <p>Thank you for your email.</p> <p>I have lodged a Request for Service (number 3346261), which has been sent to our Roading contractors for action.</p> <p>You will be notified of the outcome once a response has been received.</p> <p>Kind Regards Anja</p> <p>Ask Us Team Customer Services</p> <p>-----Original Message----- From: louise.hansen@xtra.co.nz [mailto:louise.hansen@xtra.co.nz] Sent: Friday, 12 January 2007 2:52 p.m. To: ask.us@fndc.govt.nz Subject: RFS from website Importance: High</p> <p>location1: Koropewa Road Road Maintenance requestdetails: Could the Council please have Koropewa Road graded PROPERLY! It needs to be graded right back, metal put down and then rolled wet. There is No metal on the sharp corner coming up Koropewa Road, with deep mud in the wheel tracks. An accident waiting to happen! The corrugations are awful along the whole road. When it was graded last or as the locals call it "skimed" the corrugations were not graded</p>



Received Date	RFS No.	Request Type Description	Note Description
			<p>out. When I complained last time some metal was spread around, but it did not last. If the Council will not seal this road then how about proper maintenance? No doubt the colverts and drains will need to be cleared out as well with this rain.</p> <p>Othercomments: I look forward to hearing from you.</p>
19-Apr-2007 20-Apr-2007	3352190	DO NOT USE - Roads- Metal - Maintenance - Potholes	<p>Caller advised that Koropewa road is falling away at the sides which is forcing drivers to drive in the middle of the road. Please investigate.</p>
12-Sep-2007 25-Sep-2007	3362342	DO NOT USE Roads - Sealed - Maintenance - Potholes	<p>Can you please advise who will deal with the issues relating to the intersection Waipapa Rd and State Highway 10? You guys or Transit. Once I know I can create more RFS.</p> <p>Thanks Anja</p> <p>From: ask.us@fndc.govt.nz Sent: Wednesday, 12 September 2007 10:16 a.m. To: 'louise.hansen@xtra.co.nz' Cc: ask.us@fndc.govt.nz Subject: REF RFS 3362342 RDGRR Email from website Importance: High</p> <p>Good morning.</p> <p>Thank you for contacting us at the Far North District Council.</p> <p>I have lodged a Request for Service (number 3362342), which has been sent to our Roading Department for action.</p> <p>We will notify you of the outcome of your request once a response has been received (within 10 working days).</p> <p>Kind Regards</p> <p>Anja</p> <p>Ask Us Team</p> <p>Customer Services</p> <p>-----Original Message----- From: louise.hansen@xtra.co.nz [mailto:louise.hansen@xtra.co.nz] Sent: Tuesday, 11 September 2007 9:53 a.m. To: ask.us@fndc.govt.nz; Webmaster Subject: Email from website Importance: High</p> <p>Enquiry_details: Could you please organise the grader to come out to Koropewa road and sort out the pot holes along it. Also more metal is required on the corner as you go up Koropewa Road. At the other end of</p>



Received Date	RFS No.	Request Type Description	Note Description
			<p>Koropewa where it joins to Ngapuhi the colvert which was repaired a few months ago. The ground has now settled and there is a substantial dip in the road which needs to be addressed. The entrance to Ngapuhi road as also subsided and there is a noticeable dip when you turn into it from Pungaere Road.</p> <p>The entrance to Pungaere Road and SH10 needs to be swept. There is a lot of loose gravel sitting there and cars stopping at Pungaere Road have a tendency to skid.</p> <p>Could you please re paint the yellow lines road marking round the intersection of SH10 and Waipapa Roads. Could that intersection be swept as well?</p> <p>Thank you.</p>
07-Nov-2007 08-Nov-2007	3365871	DO NOT USE - Roads- Metal - Maintenance - Potholes	We have Koropewa road programmed for metal, to be completed by 09/11/07. The loose metal on the Pungaere rd/SH10 intersection comes under Transit as 30m in from the centre line of the Highway is classed as State Highway. Please close for MJC
08-Nov-2007 07-Dec-2007	3366053	Roading Correspondence	<p>This complaint refers to RFS 3362342 and 3365871:</p> <p>-----Original Message----- From: louise.hansen@xtra.co.nz [mailto:louise.hansen@xtra.co.nz] Sent: Thursday, 8 November 2007 8:53 a.m. To: ask.us@fndc.govt.nz; Webmaster Subject: Email from website Importance: High</p> <p>Request_reference: 3362342 and 3365871 Enquiry_details: Yesterday I contacted the Council ref # 3365871 and requested Koropewa Road be graded and metal put onto it. I also requested that the intersections at SH10 and Pungaere Road and SH10 and Waipapa Roads be swept as there is a lot of loose metal which makes stopping very dangerous.</p> <p>I contacted Council in September ref # 3362342 requesting the same service. Koropewa Road was graded - Thank you. - I am still waiting for the two intersections to be swept.</p> <p>I feel the delay on something so simple as to get someone out there and sweep the loose metal to the side of the road completely unacceptable. I received an email from Council on 25/9/07 replying to my request 3362342 and stating that the intersections will be swept by the 24/9/07. (Which they had not) I also requested that the yellow lines at the intersection of Waipapa and SH10 to be repainted. The email I recieved on the 25/9/07 told me that the lines had been re painted. This is not true.</p> <p>I spoke to Tom Baker during the elections highlighting my concerns regarding the intersection at SH10 and Waipapa Road. He recommended that I put a request of service in. Which I have done now, twice. I have also contacted Transit and requested that this work be carried out. We are now in November and still I am skidding to a stop on the loose metal at Pungaere Road. What will it take for Council to sort this out? I would like someone - who knows what's happening - to contact me.</p>



Received Date	RFS No.	Request Type Description	Note Description
			027 284 7883 Hopefully we can get this issue rectified in the near future. Louise Hansen
15-Nov-2007 19-Nov-2007	3366566	Roads - State Highways	<p>Grant, this is becoming rather urgent. According to Mrs Hansen Transit would have been notified of this request:</p> <p>"1. I also requested that the intersections at SH10 and Pungaere Road and SH10 and Waipapa Roads be swept as there is a lot of loose metal which makes stopping very dangerous. I contacted Council in September ref # 3362342 requesting the same service. Koropewa Road was graded - Thank you. - I am still waiting for the two intersections to be swept. I feel the delay on something so simple as to get someone out there and sweep the loose metal to the side of the road completely unacceptable.</p> <p>2. I also requested that the yellow lines at the intersection of Waipapa and SH10 to be repainted.</p> <p>First_name: louise Last_name: hansen Email_address: louise.hansen@xtra.co.nz</p> <p>Can this be done please asap? Thanks Anja (Ref: REF RFS 3366053 RDGRR)</p>
20-Nov-2007 22-Nov-2007	3366918	DO NOT USE - Roads- Metal - Maintenance - Potholes	SOUTH- Vicki Grover from Koropewa Road, Waipapa advises that the metal put down recently on Koropewa Road is too fine -not compacting down- now the road is very corrugated with lots of loose metal on the corners. very hard on the vehicles already after such a short time. any chance of the road being rolled-what is the solution? please advise outcome-
03-Oct-2008 11-Nov-2008	3394607	Roading Correspondence	<p>-----Original Message----- From: jakelle@xtra.co.nz [mailto:jakelle@xtra.co.nz] Sent: Friday, 3 October 2008 11:09 a.m. To: ask.us@fndc.govt.nz Subject: RFS from website Importance: High</p> <p>First_name: Paul Last_name: Cheeseman Email_address: jakelle@xtra.co.nz Request_type: Road Maintenance Request_details: I was wondering why Koropewa Road is one of the only roads that has not been properly surfaced. We are so close to Waipapa yet the road is constantly being re graded as the road is so bad at times it is like travelling over a cattle grid. I have had to have shocks done on both of my cars and the stone chips are laughable. I see all this work going on in town which is great but I dont live in town. I would like</p>



Received Date	RFS No.	Request Type Description	Note Description
			to know when our road is going to be done. I have rung up in the past only to be told that there is nothing down for the foreseeable future & I find this very frustrating. Can you please advise me as to when our road is going to be sealed?. We pay as much rates as anyone else and seeing as we live half a km from Waipapa we deserve a sealed road. Please look into this and I eagerly await your reply. Thankyou
03-Oct-2008 11-Nov-2008		Roading Correspondence	<p>From: ask.us@fndc.govt.nz Sent: Wednesday, 29 October 2008 8:50 a.m. To: 'jakelle@xtra.co.nz' Cc: ask.us@fndc.govt.nz Subject: REF RFS 3394607 RSRR RFS from website</p> <p>Good morning.</p> <p>I have received the following response from GHD Consultants:</p> <p>The Far North District Council administers one of the longest road networks (2600 km) and highest proportions of unsealed roads (66% or 1720 km) in the country. The size and nature of this network, combined with the District's relatively small and dispersed population means that the Council relies heavily on assistance from central government through the National Land Transport Fund to pay for its maintenance as well as for improvements such as the seal extension you have requested. Currently, the annual funding assistance received by the council amounts to a little over half of the Council's total budget for roads.</p> <p>The National Land Transport Fund is disbursed by Land Transport New Zealand. Conditions are attached to the funding assistance. For road improvements the most influential condition tends to be the Benefit Cost Ratio (BCR). Briefly, the BCR determines whether or not the economic benefits of a project are at least equal to or exceed the costs and is designed to ensure that the funding assistance is directed to projects, which give the highest benefits unlikely to materially outweigh the costs and the project is therefore most unlikely to be eligible for funding assistance.</p> <p>The Council therefore currently has no plans to seal the remainder of Koropewa Road in the short to medium term.</p> <p>However, the Council is prepared to assist property owners who wish to have their road sealed ahead of the time when it would be sealed in the normal course of events. Provided that 75% of the affected property owners (as determined by a poll of property owners within a pre-determined area of benefit) agree to fund 66% of the cost, the Council will fund the balance (34%).</p> <p>Kind Regards Anja Ask Us Team</p>



Received Date	RFS No.	Request Type Description	Note Description
			RFS closed
03-Oct-2008 11-Nov-2008		Roading Correspondence	<p>Hello GHD, in your response to the customer you talked about "remainder of Rawhiti Rd" which I changed to "Koropewa Rd" but left the "remainder" in - this may have lead to the confusion...? Cheers Anja</p> <p>Anja Ask Us Team</p> <p>-----</p> <p>From: Dawn Cheeseman [mailto:jakelle@xtra.co.nz] Sent: Wednesday, 29 October 2008 10:42 p.m. To: ask.us@fndc.govt.nz Subject: Re: REF RFS 3394607 RSRR RFS from website</p> <p>Good Evening,Thanks for the response.I notice on line 10 that you state the council has no plans to seal the remainder of Koropewa Road,waipapa.This is my point none of koropewa Road is sealed,the beginning of Koropewa road is 40 yards from state highway 10 and this junction is only one quarter of a kilometre from the main centre of waipapa...Koropewa Road is the only un-sealed road that close to either kerikeri or waipapa within 10kilometres.Can someone please look at a map as to where exactly we are and as you state there are no plans to seal the remainder of koropewa road I say again none of our road is sealed could someone look into should it have been sealed,was the council paid to seal it and didnt?.This is something I will look into aswell but will await your response.Dawn Cheeseman</p>
03-Oct-2008 11-Nov-2008		Roading Correspondence	<p>RFS re-opened again</p> <p>Hello Allen, I am hoping that you can resolve this issue once and for all.</p> <p>In GHD's copy and paste response to the Cheesemans they left the word "remainder" in which has now made the Cheesemans suspicious - they seem to think that the road or parts of it should have been sealed.</p> <p>They have even approached the NZTA - see email:</p> <p>*****</p> <p>-----Original Message----- From: jakelle@xtra.co.nz [mailto:jakelle@xtra.co.nz] Sent: Tuesday, 4 November 2008 11:11 a.m. To: ask.us@fndc.govt.nz Subject: Email from website Importance: High</p> <p>First_name: Paul Last_name: Cheeseman Email_address: jakelle@xtra.co.nz</p>



Received Date	RFS No.	Request Type Description	Note Description
			<p>Request_reference: Enquiry_details: Hi,I am trying to find out if Koropewa Road,Waipapa Rd2 in northland shows as a part sealed or sealed road on the governments roading system,or if it is unsealed.Thanks for any help you can give.Paul Cheeseman</p> <p>This e-mail request is forwarded to FNDC by NZ Transport Agency (ex Transit NZ). The road in question does not appear to be state highway. Please respond directly to Mr Cheeseman. Thank you.</p> <p>*****</p> <p>Allen, could you please contact them to explain the situation? Thanks Anja</p>
03-Oct-2008 11-Nov-2008		Roading Correspondence	<p>Council is currently preparing the revised LTCCP. (Long Term Council Community Plan). We have proposed to seal approximately 1km of Koropewa Road in the revised plan in the three year program. Again this is conditional on obtaining funding for the proposed seal extension. NZTA who provide the subsidy for roading projects (see earlier corresponddence) have recently announced that they will no longer subsidise seal extensions however they then approved three seal extension projects in the Far North District. We will continue to seek funding for seal extensions from all available avenues to enable completion of our proposed program. Allan</p>
03-Oct-2008 11-Nov-2008		Roading Correspondence	<p>Pls send to customer as follows:</p> <p>Council is currently preparing the revised LTCCP. (Long Term Council Community Plan). We have proposed to seal approximately 1km of Koropewa Road in the revised plan in the three year program. Again this is conditional on obtaining funding for the proposed seal extension. NZTA who provide the subsidy for roading projects (see earlier corresponddence) have recently announced that they will no longer subsidise seal extensions however they then approved three seal extension projects in the Far North District. We will continue to seek funding for seal extensions from all available avenues to enable completion of our proposed program.</p> <p>Regards, Allan Shadbolt</p>



Received Date	RFS No.	Request Type Description	Note Description
03-Oct-2008 11-Nov-2008		Roading Correspondence	<p>From: ask.us@fndc.govt.nz Sent: Tuesday, 11 November 2008 3:46 p.m. To: 'jakelle@xtra.co.nz' Cc: ask.us@fndc.govt.nz Subject: REF RFS 3394607 RSRR RFS from website</p> <p>Good afternoon.</p> <p>I have received the following response from Allan Shadbolt, Project Manager for Roothing & Drainage in regards to your query as to if Koropewa Rd will be sealed: Council is currently preparing the revised LTCCP (Long Term Council Community Plan). We have proposed to seal approximately 1km of Koropewa Road in the revised plan in the three year program. Again this is conditional on obtaining funding for the proposed seal extension. The New Zealand Transport Authority who provide the subsidy for roading projects (see earlier correspondence) have recently announced that they will no longer subsidise seal extensions however they then approved three seal extension projects in the Far North District. We will continue to seek funding for seal extensions from all available avenues to enable completion of our proposed program.</p> <p>Regards, Allan Shadbolt</p> <p>Kind Regards Anja Ask Us Team</p> <p>RFS closed</p>



Received Date	RFS No.	Request Type Description	Note Description
04-Nov-2008 01-Dec-2008	3397331	DO NOT USE - Roads- Metal - Maintenance - Potholes	<p>Please arrange for road to be maintained and advise how often we do maintenance checks.</p> <p>From: ask.us@fndc.govt.nz Sent: Tuesday, 4 November 2008 9:49 a.m. To: 'jakelle@xtra.co.nz' Cc: ask.us@fndc.govt.nz Subject: REF RFS 3394607 and 3397331 RSRR RFS from website</p> <p>Good morning.</p> <p>Thank you for contacting us at the Far North District Council.</p> <p>I have lodged a Request for Service (3397331), which has been sent to our Roading Department for action.</p> <p>We will notify you of the outcome of your request once a response has been received (within 10 working days).</p> <p>Kind Regards</p> <p>Anna</p> <p>Ask Us Team</p> <p>From: Dawn Cheeseman [mailto:jakelle@xtra.co.nz] Sent: Friday, 31 October 2008 10:55 p.m. To: ask.us@fndc.govt.nz Subject: Re: REF RFS 3394607 RSRR RFS from website</p> <p>Hi,As I mentioned before the road has been graded in the last 2 weeks and once again it is like driving over a cattle grid but all the way down the road.If our road is not to be sealed then it should at least be driveable.The council needs to get out and inspect this road or should I say farm track.My drive is in better condition.can you please advise how often Koropewa road is inspected.Thanks Paul Cheeseman</p>
13-Jan-2009 16-Jan-2009	3403189	DO NOT USE - Roads- Metal - Maintenance - Potholes	At Koropewa road at Waipapa requires maintainance as it has bad corrugation on a fair bit of the road from the start of the road and goes for at least 1km.
19-Mar-2009 07-Apr-2009	3409732	DO NOT USE Roads - Sealed - Maintenance - Potholes	South Caller advising Koropewa Road is full of potholes and corrigation client advised a grader had been out but it has helped the situation please investigate
02-Nov-2009 05-Nov-2009	3433772	DO NOT USE - Roads- Metal - Maintenance - Potholes	Koropewa Road - Waipapa - South Wendy Nagel 09 4079312 states road is badly potholed and corrugated requires attention please says people are driving on the wrong side of the road to aviod potholes which is an accident waiting to happen can this be tended to thanks



Received Date	RFS No.	Request Type Description	Note Description
05-Jan-2010 05-Jan-2010	3439918	DO NOT USE - Roads- Metal - Maintenance - Potholes	South Caller advising the corrugation on Koropewa Road kerikeri is very dangerous and needs some attention have advised client will ref to roading for assistance please investigate Vicky Glover 09 407 8499
06-Apr-2010 09-Apr-2010	3450073	DO NOT USE - Roads- Metal - Maintenance - Potholes	Caller lives at 124 Koropewa Road Waipapa there is really bad corrugation on the whole of the road according to caller, pls investigate, grading is required.
07-Dec-2010 08-Dec-2010	3479198	DO NOT USE - Roads- Metal - Maintenance - Potholes	Koropewa Road need s graded bad corrugations and very dusty
01-Feb-2011 04-Feb-2011	3484303	DO NOT USE Roads - Sealed - Maintenance - Potholes	Louise Hansen phoned in about Koropewa & Ngapuhi Roads, Kerikeri. Both of these need maintenance please. There are places where there are gouges in the road surface and metal replacement also needed. Can you please look at the section of road outside there place also (150 Koropewa Road). Ph# 4017476. Thanks BJM
29-Mar-2011 30-Mar-2011	3491526	DO NOT USE - Roads- Metal - Maintenance - Potholes	Caller advising that pretty much the whole of Koropewa Road is corrugated and potholes everywhere also, please repair the road. There is a 90 degree bend on the road and people are having to drive on the other side of the road due to corrugation so it's quite dangerous.
21-Apr-2011 03-May-2011	3494106	DO NOT USE - Roads- Metal - Maintenance - Potholes	South aller advising that pretty much the whole of Koropewa Road is corrugated and potholes everywhere also, please repair the road. There is a 90 degree bend on the road and people are having to drive on the other side of the road due to corrugation so it's quite dangerous.
30-May-2011 31-May-2011	3498616	DO NOT USE - Roads- Metal - Maintenance - Potholes	The potholes on Koropewa Road Waipapa are becoming very dangerous, caller said it requires grading urgently and perhaps more metal please investigate, grader was on the road a couple of months ago and only skimmed over the road therefore corrugations and potholes came back in know time Wendy Nagel 09 4079312
18-Jul-2011 21-Jul-2011	3503780	DO NOT USE - Roads- Metal - Maintenance - Potholes	Customer advising that Koropewa road needing to be graded. Road has a number of potholes, people are driving on the wrong side of the road to avoid potholes. CALLER would like the road attended to Pls investigate
06-Jan-2012 12-Jan-2012	3523492	Roading Correspondence	Re: Complaint against the Northern Water Co Ltd (NWC) excavation on Koropewa Road



Received Date	RFS No.	Request Type Description	Note Description
06-Jan-2012 12-Jan-2012		Roadding Correspondence	Email received from GHD, have followed up with Allan S to see what we should do. From: Alan.Wheatley@ghd.com [mailto:Alan.Wheatley@ghd.com] Sent: Monday, 23 January 2012 2:12 p.m. To: Aaron Reilly Subject: RE: Koropewa Road 3523492 Hi Aaron I had a look at this on Friday last week and met with the man who sent this in. There is a big depression (5m x 1.5m) which has been there for months, and is quite overgrown. The caller states that there is a valve in the bottom of this hole. This should be backfilled and a proper valve chamber built around it. As I do not have any knowledge of who was responsible for this, please can FNDC follow it up with who ever to get it fixed Regards Alan Wheatley Area Engineer - South
13-Feb-2012 16-Feb-2012	3527938	DO NOT USE - Roads- Metal - Maintenance - Potholes	Customer phoned to report the state of Koropewa Road. He said that the corrugations are so bad that they have had to replace the suspension on their car. Pls investigate and advise. Thanks
30-Mar-2012 04-May-2012	3533995	Roadding Correspondence	Complaint against the Northern Water Co Ltd (NWC) - Excavation on Koropewa Road - Correspondence Number 3523492 - January 4, 2012 No acknowledgement letters sent
09-Nov-2012 30-Nov-2012	3562490	Roadding Correspondence	From: petergill@xtra.co.nz [mailto:petergill@xtra.co.nz] Sent: Wednesday, 7 November 2012 10:20 a.m. To: ask.us@fndc.govt.nz Subject: Website submitted email from Peter GILL A website submitted email has been received from Peter GILL. Enquiry details: Sirs/Ms I am thinking of investing in a tourism adventure in the Kerikeri area. It would help me to know the answer to the following question. I have tried my best to get the answer myself using the internet, so as not to bother council staff. But I cannot find any information subsequent to the year 2010. The question is: When is it planned to extend the seal on Koropewa Road, Waipapa. Many thanks. Peter
08-Feb-2013 08-Feb-2013	3572755	Road Repairs- Potholes, NOT TO BE USED BY CSO	AFTER HURS 109404 07/02/2013 16:59:34 Mr Derek Nelson 027 378-4990 54 Koropewa Road RD 2 RD 2 Caller ringing to advise that there are a lot of potholes outside 29 Koropewa Road, Waipapa. This road was serviced today however customer claims that driver did not notice these potholes. Advised caller that this will be followed up during business hours. Mth
12-Feb-2013	3573220	Roadding	RFS 3572783 - Poor Condition of Koropewa Road, Waipapa



Received Date	RFS No.	Request Type Description	Note Description
27-Feb-2013		Correspondence	
04-Mar-2013 28-Jun-2013	3576033	Mayoral Correspondence	<p>From: ask.us@fndc.govt.nz Sent: Wednesday, 20 March 2013 11:54 a.m. To: 'petergill@xtra.co.nz' Cc: ask.us@fndc.govt.nz Subject: REF RFS 3576033 SDG Website submitted email from Peter Gill</p> <p>From: petergill@xtra.co.nz [mailto:petergill@xtra.co.nz] Sent: Tuesday, 19 March 2013 11:34 p.m. To: ask.us@fndc.govt.nz Subject: Website submitted email from Peter Gill</p> <p>A website submitted email has been received from Peter Gill.</p> <p>The following message has been submitted:</p> <p>Your enquiry Enquiry details: Three weeks ago, I sent a letter to HWM Brown in regard to the condition of Koropewa Road, RD2 Kerikeri. I was very precise with writing the council's exact address on the envelope and I have no reason to believe that you did not receive it. Thus I am appalled and dismayed to have received no response. Can the office of HWN please tell me where this is at. Regards Peter</p>
22-Mar-2013 27-Mar-2013	3578818	Road Repairs-Potholes, NOT TO BE USED BY CSO	Dan Hardwick-Smith 4079820 has asked for urgent repairs on Koropewa Road Waipapa. He says the whole length of the road is full of corrugations.
25-Jun-2013 02-Jul-2013	3591012	Roading Correspondence	<p>From: Peter Gill [mailto:petergill@xtra.co.nz] Sent: Thursday, 20 June 2013 11:24 p.m. To: ask.us@fndc.govt.nz Subject: Koropewa Road Waipapa</p> <p>I am Peter Gill, resident of the above road.</p> <p>I would like to re-address the matter of the condition of Koropewa Road, Waipapa.</p> <p>I say re-address, because I have corresponded before, earlier in the year.</p> <p>It is a fact that this road is reduced to the condition of an agricultural track.</p> <p>There has been one attendance by a grader and an associated application of metal this calendar year to date.</p> <p>In the drier months, the roof sourced drinking water supplies of residents</p>



Received Date	RFS No.	Request Type Description	Note Description
			<p>are severely polluted to levels that we understand are below World Health Organisation Standards for the cleanliness of water supplies in the western world.</p> <p>The driving surface is pitted, rutted, pot holed and generally dangerous.</p> <p>May we have an update on Council's plans.</p> <p>Regards Peter Gill 150B Koropewa Road</p>
25-Jun-2013 02-Jul-2013		Roading Correspondence	<p>Justin looked at this on 28 June, and potholes already filled in by the contractor. The road condition is very similar if not better than other unsealed roads in the area road is maintained to Council's Level of Service.</p> <p>No further work necessary. Koropewa Road will not be sealed.</p> <p>Please inform customer and close RFS.</p>
25-Jun-2013 02-Jul-2013		Roading Correspondence	<p>From: ask.us@fndc.govt.nz Sent: Tuesday, 2 July 2013 9:53 a.m. To: 'petergill@xtra.co.nz' Cc: ask.us@fndc.govt.nz Subject: REF RFS 3591012 RS: Koropewa Road Waipapa</p> <p>Good morning.</p> <p>I have received the following response from Area Engineer Justin Pooley:</p> <p>I looked at this on 28 June, and potholes already filled in by the contractor. The road condition is very similar if not better than other unsealed roads in the area road is maintained to Council's Level of Service. No further work necessary. Koropewa Road will not be sealed.</p> <p>Kind Regards Anja Ask Us Customer Services Team</p> <p>RFS closed</p>



Received Date	RFS No.	Request Type Description	Note Description
12-Jul-2013 25-Jul-2013	3593633	Road Repairs- Potholes, NOT TO BE USED BY CSO	<p>From: Peter Gill [mailto:petergill@xtra.co.nz] Sent: Wednesday, 10 July 2013 1:46 p.m. To: ask.us@fndc.govt.nz Subject: Koropewa Road and Ngapuhi Road WAIPAPA</p> <p>I am sorry to report a dangerous situation at the corner of Koropewa and Ngapuhi Roads, Waipapa.</p> <p>A dangerous washout has occurred on what is a very difficult corner. It is a recurring thing. The metal the contractor puts in simply washes into the stormwater trench adjacent.</p> <p>Secondly, a long tract of Koropewa Road , more towards the Waipapa end is now bare clay, offering no traction at all to vehicles.</p> <p>Thankyou Peter Gill 150B Koropewa Road Founder of the NZ Motoring Writers Guild</p>
22-Aug-2013 23-Aug-2013	3600236	Road Repairs- Potholes, NOT TO BE USED BY CSO	<p>From: petergill@xtra.co.nz [mailto:petergill@xtra.co.nz] Sent: Thursday, 22 August 2013 11:40 a.m. To: ask.us@fndc.govt.nz Subject: Website RFS - Request type: Road Maintenance - from Peter Gill</p> <p>A Request For Service (RFS) has been received from Peter Gill.</p> <p>The following request has been submitted:</p> <p>Request type: Road Maintenance</p> <p>How can we help?: Koropewa Road has run down to bare clay</p>
10-Jan-2014 14-Jan-2014	3619476	Road Repairs- Potholes, NOT TO BE USED BY CSO	<p>From: petergill@xtra.co.nz [mailto:petergill@xtra.co.nz] Sent: Wednesday, 8 January 2014 9:08 a.m. To: ask.us@fndc.govt.nz Subject: Website RFS - Request type: - from Peter Gill</p> <p>A Request For Service (RFS) has been received from Peter Gill.</p> <p>Request type:</p> <ul style="list-style-type: none"> • How can we help?: A serious rut has re-appeared in the road on a very dangerous corner. This rut is capable of throwing cars off course. <p>Secondly, Koropewa is seriously in need of corrugations being smoothed out. Users can barely exceed 10 km hr. Many thanks. Dr Peter Gill.</p>



Received Date	RFS No.	Request Type Description	Note Description
14-Feb-2014 18-Feb-2014	3624260	Road Repairs- Potholes, NOT TO BE USED BY CSO	<p>From: petergill@xtra.co.nz [mailto:petergill@xtra.co.nz] Sent: Monday, 10 February 2014 5:05 p.m. To: ask.us@fndc.govt.nz Subject: Website RFS - Request type: - from Peter Gill</p> <p>A Request For Service (RFS) has been received from Peter Gill. The following request has been submitted: Your Details</p> <ul style="list-style-type: none"> • Title: Dr • Other title: • First name*: Peter • Surname*: Gill • Email address*: petergill@xtra.co.nz • Request type: • How can we help?: May we request that council or contractors inspect and rectify. • Attach a document: No file uploaded
19-Feb-2014 10-Mar-2014	3624837	Mayoral Correspondence	<p>Responcse sent. Close RFS.</p> <p>10 March 2014</p> <p>Mr Peter Gill 150B Koropewa Road RD 2 Kerikeri 0295</p> <p>Dear Mr Gill</p> <p>Re: Request for Service Number: 3624837</p> <p>Thank you for your letter dated the 10th February 2014.</p> <p>With regard to the road maintenance, both Koropewa Road and Ngapuhi Road were already programmed for grading and this was completed last week to remove the corrugations. The Council's Contractor, Transfield, has frequently three graders operating and maintaining the Eastern area of the District. In the Far North, we have 1,661km of unsealed roads to maintain and in the eastern area, a length of 519km. Koropewa Road and Ngapuhi Road are regularly inspected by the contractor and council staff to monitor the road condition and compliance with the contract conditions.</p> <p>Koropewa Road has been designated by Council as a Local Road (less than 300 vehicles per day) and is therefore subject to particular Levels of Service, as stated in the maintenance contract. Dust and corrugations are an issue on all unsealed roads throughout the Far North, especially during long spells of hot and dry conditions.</p> <p>Due to the current economic climate the New Zealand Transport Agency [NZTA] has dramatically reduced all road improvement funding for local</p>



Received Date	RFS No.	Request Type Description	Note Description
			<p>authority roads to concentrate expenditure on roads of national significance.</p> <p>This means the NZTA is not approving seal extension projects unless the project achieves a very high benefit to cost ratio and has strong supporting arguments. Accordingly the Far North District Council has little funding for road improvement projects and to contain rate increases and is therefore forced to concentrate on maintaining the existing network.</p> <p>Despite concerted efforts by the Council over several years to inform NZTA of the district-wide problem of dusty roads during dry periods, there currently is no indication from NZTA that more funds will be made available to address this issue in the near future. The alternate remedies that have been tried have varied successes. The outcomes have alternated from no success to short term benefits for reasonably high costs.</p> <p>At this stage it is unfortunate that Central government has stopped providing funds for seal extensions, however, should you and fellow residents be prepared to contribute 66% of the costs Council could provide the remaining 34% to seal the road. This is provided certain criteria is met. This criteria can be provided should you wish to pursue this option further.</p> <p>An agenda item will be submitted to the Infrastructure Committee at either the 3rd April or 1st May meeting for consideration by the committee regarding dust suppression.</p> <p>If you require any further information or assistance please do not hesitate to contact me on our free phone number 0800 920 029 or on 09 401 5200.</p> <p>Yours sincerely Hon John Carter QSO Mayor Far North District Council</p>
23-Feb-2014 26-Feb-2014	3625461	Road Repairs- Potholes, NOT TO BE USED BY CSO	118697 22/02/2014 10:27:09 Dorothy Rowe 09 407-4442 16 Koropewa Road RD 2 RD 2 Caller is advising that the grader has gone down Koropewa Road Waipapa 5 days ago and the caller is advising that the pot holes are back and the there is no metal on the road, with the current weather conditions this has made the road slick and muddy. Caller would like a return call to discuss



Received Date	RFS No.	Request Type Description	Note Description
27-Feb-2014 07-Mar-2014	3626155	Road Repairs- Potholes, NOT TO BE USED BY CSO	<p>From: petergill@xtra.co.nz [mailto:petergill@xtra.co.nz] Sent: Sunday, 23 February 2014 4:50 p.m. To: ask.us@fndc.govt.nz Subject: Website RFS - Request type: Road Maintenance - from Peter Gill</p> <p>A Request For Service (RFS) has been received from Peter Gill. The following request has been submitted: Your Details</p> <ul style="list-style-type: none">• Title: Dr• Other title:• First name*: Peter• Surname*: Gill• Email address*: petergill@xtra.co.nz <p>Request type: Road Maintenance</p> <ul style="list-style-type: none">• How can we help?: In Koropewa and Ngapuhi Roads, we are again driving on clay. This is only days after you responded Transfield to a previous RFS. Transfield came very, very promptly with the grader and that is appreciated. They also kept in touch be email.They did the grading work. For some reason that we, the residents cannot fathom, all the metal disappears within a day, and we are back driving on clay again. Whether Council thinks that its ratepayers should not complain o driving on clay, or not, is one thing. But Council is endangering the lives and health of its ratepayers. There are two very sharp corners on these two roads. When the clay is wet and becomes a slurry, vehicles rounding those corners sledge, and lose directional control. On other parts of the two roads, normal braking actions are compromised, by vehicles sledging on the wet clay. Council is putting its citizens at risk and this matter needs addressing urgently. <p>• Attach a document: No file uploaded</p>



Received Date	RFS No.	Request Type Description	Note Description
07-Jul-2014 11-Aug-2014	3644833	Rural Drainage - Water Tables, Culverts	<p>From: Geoff Tilley [mailto:geofftilley@hotmail.com] Sent: Monday, 4 August 2014 5:30 p.m. To: ask.us@fndc.govt.nz Subject: RE: Re RFS 3644833</p> <p>Hello</p> <p>I am in receipt of your response to the RFS3644833.</p> <p>It is a real shame that the site visit did not include me as property owner because Stuart Beaven has mis-understood the problem.</p> <p>The road grader is the problem not the solution. When I first moved into 88 Koropewa Road nearly 9 years ago the partially formed existing drain extended much further eastwards from the under road culvert and into the area which now remains undrained. Continuous grading of the road has filled this in and I glean from the comment 'that a grader drain be formed that slopes appropriately to the partially formed existing drain that discharges to this culvert' means that the original drain will be re-dug out to create the appropriate drainage.</p> <p>It is suggested that to improve the situation the property owners each side of the culvert install culverts under their own driveways. In the case of Mrs McFadzian of 92 Koropewa Road she already has a culvert under her driveway. In the case of my driveway it is situated at the highest point along this stretch of the road and never has a puddling problem. The installation of a culvert under the driveway would be pointless and achieve nothing.</p> <p>I attach a photo taken from the point where my driveway joins Koropewa Road. The under road culvert lies at the far side of the puddle. This puddle can take a week to drain after the rain stops and the ground remains muddy for much much longer. Into the distance you can see water running back down Koropewa from the opposite direction and where this turns into the road shoulder is where Mrs McFadzians under driveway culvert is. The under road culvert which is supposed to be draining this area lies between Mrs McFadzians driveway and the start of the puddle from her side. Clearly a culvert under my driveway will have no impact on water drainage from this puddle. This picture also does not show the puddle at its biggest. It will puddle to at least half way across the road. A significant wave and splash is caused when vehicles pass through it, for at these times there is insufficient carriageway to use to avoid the puddle.</p> <p>I would be obliged if the work proposed by Mr Beaven be completed as soon as possible to ensure that the proposal will achieve the required drainage.</p> <p>Your assistance in this matter will be much appreciated.</p> <p>Geoff Tilley 88 Koropewa Road.</p>



Received Date	RFS No.	Request Type Description	Note Description
23-Apr-2015 29-Apr-2015	3688399	Road Repairs- Potholes, NOT TO BE USED BY CSO	<p>From: petergill@xtra.co.nz [mailto:petergill@xtra.co.nz] Sent: Monday, 20 April 2015 4:10 p.m. To: ask.us@fndc.govt.nz Subject: Website RFS - Request type: Road Maintenance - from Peter Gill</p> <p>A Request For Service (RFS) has been received from Peter Gill. The following request has been submitted: Your Details</p> <ul style="list-style-type: none"> • Title: Dr • Other title: • First name*: Peter • Surname*: Gill • Email address*: petergill@xtra.co.nz <p>Request type: Road Maintenance</p> <ul style="list-style-type: none"> • How can we help?: Regretfully, Koropewa Road, more so at the end with street numbers below 150, has turned to bare clay again. We very much appreciate that Council and Transfield do send the grader quite often and that metal is delivered and laid two to three times a year. We thank you for that. We cannot understand why this condition, dangerous for driving, keeps recurring. • Attach a document: No file uploaded
07-Sep-2015 19-Oct-2015	3712562	Roading Correspondence	Regards surfaces problem of Koropewa Road & Ngapuhi Road Waipapa
15-Dec-2015 18-Dec-2015	3731899	Road Repairs - Potholes, Edge Breaks, Corrugations	<p>Alice Parish at 9 Koropewa Road, Waipapa Phone: 021-023-21918</p> <p>URGENT: serious dust issues causing health problems and issues for her and her family as well as their home caused by the many vehicles using this road (ie: logging / cattle / rubbish trucks, local hoonies, visitors to businesses and property owners along this road, etc) which she says has been amplified since the road was graded recently.</p> <p>Alice would appreciate someone inspect and contact her with progress / action being taken to rectify issue, thanks.</p>
20-Apr-2016 19-May-2016	3752361	Road Repairs - Potholes, Edge Breaks, Corrugations	<p>Submission was made to Annual Plan, but is out of scope.</p> <p>The submitter asks for follow up to ensure the engineer will visit Koropewa Road, Kerikeri as promised at the Community Feedback Session on 8 April. This was in relation to the road surface, the dangerous bend and the dangerous culvert/bridge.</p> <p>Submission is attached for reference.</p>



Received Date	RFS No.	Request Type Description	Note Description
20-Apr-2016 19-May-2016		Road Repairs - Potholes, Edge Breaks, Corrugations	<p>Thu 12/05/2016 4:58 p.m.</p> <p>Please add the following to Council letterhead, E-Mail response and close RFS.</p> <p>Dear Sir/Madam</p> <p>RE: RFS No 3752361 - Koropewa Road</p> <p>Your E-Mail received on the 8 April regarding the above refers. Please accept our apologies for the delay in responding.</p> <p>In conjunction with Councils Safety Engineer Koropewa and Ngapuhi Roads were inspected on Wednesday 4 May and excluding some potholes and minor corrugations adjacent to the start of the seal and on the bends there was very little else wrong with the condition of the road surface. It should also be noted that the condition of the road would comply with the required Levels of Service as outlined in the Road Maintenance Contract. However it should also be realised that as the conditions of an unsealed road can change quite quickly and dramatically in a very short period of time drivers are required to adjust their driving habits accordingly and to drive to the conditions.</p> <p>As it is not considered appropriate to install Chevron Boards on the two bends causing concerns, due to the location of vehicle entranceways, it shall be arranged for 30km/hr Curve Warning Signs to be installed in both directions on the approaches to these bends. Obviously as these are only warning signs it will rely upon drivers to adhere to the recommended speed.</p> <p>With regard to the dangerous culvert. It shall be arranged, in the interim, for marker pegs to be installed to alert the travelling public to the potential danger. As the narrowing of the carriageway will only further deteriorate over time consideration will also be given, in the new financial year, to carrying out improvements to the existing culvert headwall of which will assist in preventing further erosion and obtaining slightly more road width at this location. Unfortunately extending the length of the existing box culvert and headwalls simply could not be justified due to traffic volumes, cost and available funds.</p> <p>Yours Sincerely</p> <p>Stuart Beaven Roading Engineer</p>



Received Date	RFS No.	Request Type Description	Note Description
16-Jun-2016 17-Jun-2016	3763167	Road Repairs - Potholes, Edge Breaks, Corrugations	<p>From: petergill@xtra.co.nz [mailto:petergill@xtra.co.nz] Sent: Tuesday, 14 June 2016 3:27 p.m. To: Ask Us Team Subject: Website RFS - issue type: Peter - from Peter Gill</p> <p>A Request For Service (RFS) has been received from . The following request has been submitted: Request details</p> <ul style="list-style-type: none"> • Location of issue*: Koropewa Road and Ngapuhi Road Rural Waipapa • Issue type*: Road maintenance • How can we help?*: These two roads constantly degrade to just a clay surface. We are now again driving on just clay, with all the vehicle control and safety hazards that are attached to that. We acknowledge that of late, some metal has been delivered and a grader has worked. We have no idea why all the metal just disappears. But at this moment, it is again very dangerous. We now believe that Council is putting its citizens and ratepayers in danger by not finding a more permanent solution to this public safety issue. We have signalled this recurring problem for over three years. Thus you will understand that we thinking about other approaches to get attention to our problem. • Attach a file or photo: No file uploaded
12-Jan-2017 12-Jan-2017	3802070	Road Repairs - Potholes, Edge Breaks, Corrugations	Rob Lavender from 122 Koropewa Road Kerikeri has requested that Koropewa Road be regraded as its is full of corrugations and potholes and very dusty.
12-Jan-2017 12-Jan-2017		Road Repairs - Potholes, Edge Breaks, Corrugations	12.01.2017 No customer contact number provided. Koropewa Road is programmed to be graded with the next three weeks. Close



Received Date	RFS No.	Request Type Description	Note Description
22-Jan-2017 23-Jan-2017	3803765	Roading Correspondence	<p>From: gregnagel@outlook.com [mailto:gregnagel@outlook.com] Sent: Saturday, 21 January 2017 9:26 a.m. To: Ask Us Team Subject: Website RFS - issue type: Greg - from Greg Nagel</p> <p>A Request For Service (RFS) has been received from . The following request has been submitted: Request details</p> <ul style="list-style-type: none"> • Location of issue*: Koropewa Road, Kerikeri • Issue type*: Road maintenance • How can we help?*: Hello, I first want to start with the question, why has Koropewa Road not be sealed? There are multiple companies operating down this road from BnB, Physio, Icecream/coffee shop, I believe there is even a trucking company set up now. When I walked the road yesterday morning (with no where to hide from the dust cloud that followed each passing car), I counted 22 letter boxes in 1.3km, that's 22 families that have to put up with dust in their drinking water. My parents for instance, have disconnected their tank due to dust getting on the roof and into the water tank. They now have to buy their drinking water. My opinion is that it is no longer acceptable to have an unsealed road this close to town, with this amount of people living on it and the modern family having at least 2 cars, each making daily return trips down the road. Another reason I am putting in this request for service is the current state of the unsealed road. The road is currently very corrugated and when the occasional grader passes through, the road returns to this state after a few weeks. Many of the residents of Koropewa Road have set up their own dust suppression systems (sprinklers) which I see is a waste of water, while they do provide localised relief, they then cause dust to stick all over the passing traffic. I would invite you to go for a drive down Koropewa Road and to see for your self what families have to deal with on a day to day basis. The corrugations on the road have also damaged our family cars, requiring multiple repairs of suspension systems and door/boot seals to keep out the dust. I would ask you to also have a look through your archives at any road accidents that have occurred on Koropewa Road as for a 'quiet road' it has certainly seen some horror. Please, consider sealing Koropewa Road when you set your budget allocations for 2017, this is only going to get worse as there are new houses being built currently. • Attach a file or photo: Koropewa-Road-Issues.pdf, type application/pdf, 1.7 MB
22-Jan-2017 23-Jan-2017		Roading Correspondence	<p>-----Original Message----- From: Stuart Beaven Sent: Monday, 23 January 2017 3:57 p.m. To: IAM Support Subject: FW: Allocated: RFS 3803765 Priority 4: Roads and Stormwater Correspondence. - Koropewa Road Dust and corrugations</p> <p>Please add the following note advise customer and close.</p> <p>Currently in the Far North District Council maintains 1,661km of unsealed</p>



Received Date	RFS No.	Request Type Description	Note Description
			<p>road network and in the eastern area of the District a length of 519km. Unfortunately all unsealed roads suffer from the concerns you highlight particularly during long spells of hot and dry conditions. Regretfully dust is an issue on all unsealed roads and we completely understand your concerns and we acknowledge issues associated with exposure to road dust. Road dust, particularly on roads used by the forestry industry, is a significant issue throughout Northland and we have been receiving a lot of feedback from affected communities on the subject.</p> <p>1. Why can't the roads be sealed? The Far North District includes around 1650 kilometres of unsealed roads, many of which service the forestry industry. Sealing these roads is perhaps the most reliable solution to address the dust issues. In the past, Council implemented a seal extensions programme, which resulted in a gradual reduction of our unsealed road network. However, that programme ceased when the New Zealand Transport Agency (NZTA) withdrew its subsidy for the work. Road sealing comes at a significant cost, (generally around \$300,000 per kilometre of road), and without the NZTA subsidy, the road sealing programme would place a significant financial burden on the District's approximately 40,000 ratepayers.</p> <p>2. What is Council doing to get more funding to manage dust on our roads Council continues to advocate to the NZTA and the Minister of Transport that funding for road sealing needs to be reinstated. With this funding, Council would be able to address acute dust issues over time by progressively sealing high priority sections of unsealed roads. In response to this advocacy, NZTA commissioned a research study of the impact of dust from unsealed roads. The research was undertaken on Far North roads and we await the announcement of the results. It is our expectation that this work will be used to guide NZTA's decision-making going forward.</p> <p>We are also working with Local Government New Zealand (LGNZ) to have dust generation from unsealed roads as part of its remit. LGNZ is the sector voice for all 78 councils in the country and is a strong advocacy group, specialising in working with Central Government to get better support for managing significant issues.</p> <p>Should LGNZ take up the issue of dust generation as part of its remit, it will ensure a very strong and well resourced advocacy platform to get better support for dealing with this issue from Central Government.</p> <p>3. What short and medium term options are there? We are hopeful that the advocacy work we are doing with NZTA and LGNZ will ultimately bring some relief, however, this is a long term approach and it will take time before possible solutions filter down to a local level. With that in mind, we are also exploring other solutions to address dust generation in the short to medium term.</p>



Received Date	RFS No.	Request Type Description	Note Description
			<p>In 2015, the Council applied for \$1.2 million of funding for this year to seal three roads in the Regional Land Transport Plan. The NZTA declined this funding. As the Council's \$500,000 local share would only seal a small length of road, we are now intending to put this money towards trialling products and techniques for road strengthening that have a side-benefit of mitigating dust generation at the same time. We are currently in the research phase of this trial work. We are also working with other road authorities to determine what has worked best for them. It is anticipated that the results of these physical trials should be available toward the end of April 2017.</p> <p>Whilst there is no guarantee that we will find a suitable agent that gives us both road strengthening and dust suppression benefits, we believe we are doing all we can to find an affordable solution for our ratepayers.</p> <p>4. What if I want to pay to seal the road in front of my property? The Council has a partnership seals policy whereby we will fund 41% of the costs of road sealing, provided all affected property owners get together and fund the rest. The annual budget for contributing to these partnership seal is approximately \$500,000. Under the policy, the property owners' share of the costs can either be payed as a lump sum or a targeted rate. There is also an option to simply seal a 100m strip across the frontage of your property, with the same financial arrangement. The average figure for sealing 100m of road is around \$35,000 and, under the policy, Council will contribute around \$15,000 towards the work. A copy of the policy can be found on our website here: http://www.fndc.govt.nz/your-council/councils-policies/Policy-4112-14-Community-Initiated-Infrastructure-Roading-Contribution.pdf. If you would like more information on the partnership seals initiative, please feel free to contact us directly.</p> <p>We realise that the above initiatives won't address the concerns you have raised immediately, and we completely acknowledge the impact dust generation from roads is having on people's wellbeing. However, we are committed to working with our communities towards finding an affordable solution.</p> <p>Koropewa Road and Ngapuhi Road are also regularly inspected by the contractor and council staff to monitor the road condition and compliance with the contract conditions. It has just recently been inspected and small corrugations were observed and as such the road has been programmed to be graded this week. However it needs to be realised that due to the current dry conditions the corrugations will return relatively quickly and that by grading the road it will further exacerbate the dust problem. Therefore at all times drivers need to slow down and drive to the conditions to minimise dust and potential vehicle damage as all drivers drive on roads at their own risk.</p> <p>Regards Stuart Beaven Rooding Engineer</p>



Received Date	RFS No.	Request Type Description	Note Description
			Infrastructure & Asset Management, Far North District Council 09 401 5200 or 0800 920 029 Stuart.Beaven@fndc.govt.nz www.fndc.govt.nz
22-Feb-2017 27-Feb-2017	3810052	Road Repairs - Potholes, Edge Breaks, Corrugations	Kevin Valtcheff ph 4074442 has complained re the condition of Koropewa Road Waipapa. He said the road has many corrugations and potholes and there is no metal on the sharp bend. He said the road was graded about 1 month ago, but the grader moved the metal to the side of the road.
22-Feb-2017 27-Feb-2017		Road Repairs - Potholes, Edge Breaks, Corrugations	27.02.2017, 11.11am Broadspectrum phoned Kevin, no reply. The grader is working on Koropewa Road today. Close
15-Mar-2017 15-Mar-2017	3814401	Emergency Works - Urgent - Slips, Floods, Trees	153301 14/03/2017 09:44:13 Tony Bray 09 407-9369 43 Koropewa Road WAIPAPA Customer called to advise. Water table build up on the road and water running onto property and flooding the property. Relayed details to David at Broadspectrum reading. md Roads Broadspectrum -Roading
15-Mar-2017 16-Mar-2017	3814631	Dogs - General Enquiries	Duncan harper -0272437992 Has asked if he is allowed to graze cows along Koropewa road, he lives at 107 koropewa road and will have cows in electric fences as he advised that the grass is getting very long and they ususally mow this and it will also stop people chucking the rubbish on the side of the road as well. please advise him if he is allowed.
15-Mar-2017 04-Apr-2017	3814633	Roading Miscellaneous - NOT TO BE USED BY CSO	Duncan harper -0272437992 Has asked if he is allowed to graze cows along Koropewa road, he lives at 107 koropewa road and will have cows in electric fences as he advised that the grass is getting very long and they ususally mow this and it will also stop people chucking the rubbish on the side of the road as well. please advise him if he is allowed.
24-Mar-2017 10-Apr-2017	3816605	Road Repairs - Potholes, Edge Breaks, Corrugations	Vicky Glover ph 4078499/0211162970 from 64 Koropewa Road Kerikeri would like to arrange a site meeting please with a roading engineer re the metal road outside her property. She is asking if there is a standard distance for a road berm. She is concerned that the grader is gradually widening the road and taking over the berm - making it difficult to maintain and also getting close to power poles. Vicki has photos of the changes.
31-May-2017 06-Jun-2017	3828646	Road Repairs - Potholes, Edge Breaks, Corrugations	Ken Clark Koropewa Road, Waipapa 2 lots of potholes that need to be fixed down this road. Could council investigate and fix please.
31-May-2017 12-Jun-	3828647	Road Repairs - Potholes, Edge Breaks,	Ken Clark Ngapuhi Road 09 407 8564 Where the road meets on the corner of Koropewa Road gauges out on



Received Date	RFS No.	Request Type Description	Note Description
2017		Corrugations	the corner is gauged out. It might need some large boulders, scoria and or rocks. They need to be large enough so people do not take them. Could council investigate and fix please
12-Jun-2017 13-Jun-2017	3830317	Roading Miscellaneous - NOT TO BE USED BY CSO	<p>From: Xtra Email [mailto:cstougie@xtra.co.nz] Sent: Sunday, 11 June 2017 6:59 p.m. To: Ask Us Team Subject: Re: 38 Koropewa Road up grade Sealing</p> <p>Hi, as you may be aware Koropewa Road is probably the closest Road to Waipapa village which is not sealed. We point out that there is a blue burry farm just past our entrance which attracts significant traffic over the summer and hence increases the dust nuisance. We have been recently been approached to support a further subdivision which we support however we note from the scheme plan that the entrance will be onto Koropewa Road which will exasperate the dust problem. Can you advise when this road is likely to be sealed. We understand that it was scheduled to be sealed previously but other demands have delayed this. Regards Carl Stougie</p> <p>Sent from my iPad</p>
12-Jun-2017 13-Jun-2017		Roading Miscellaneous - NOT TO BE USED BY CSO	<p>-----Original Message----- From: Stuart Beaven Sent: Monday, 12 June 2017 10:44 a.m. To: IAM Support Subject: FW: Allocated: RFS 3830317 Priority 4: Roding Miscellaneous - NOT TO BE USED BY CSO.</p> <p>Please add the following note advise customer and close.</p> <p>Unfortunately Koropewa Road has never been on any list to be sealed as it would never meet the New Zealand Transport Agency (NZTA) old criteria to obtain a funding subsidy for sealing. With the changes it is still ineligible for a sealing subsidy and is not on any proposed future list to be sealed.</p> <p>Currently the only way that the road would be considered for sealing would be if the residents are prepared to contribute toward the cost as part of Councils Policy 4112 Community Initiated Infrastructure - Roding Contribution.</p> <p>The details of the Policy can be found on the Far North District Council website. As a rough rule of thumb it costs \$300 000.00 per km to seal an unsealed road.</p> <p>Regards Stuart Beaven Roding Engineer Infrastructure & Asset Management, Far North District Council +6494015563 Stuart.Beaven@fndc.govt.nz www.fndc.govt.nz</p>



Received Date	RFS No.	Request Type Description	Note Description
12-Jun-2017 13-Jun-2017		Roading Miscellaneous - NOT TO BE USED BY CSO	<p>Good morning Carl,</p> <p>We have had the following response from Council's Roding Engineer to your above request regarding Koropewa Road:</p> <p>Unfortunately Koropewa Road has never been on any list to be sealed as it would never meet the New Zealand Transport Agency (NZTA) old criteria to obtain a funding subsidy for sealing. With the changes it is still ineligible for a sealing subsidy and is not on any proposed future list to be sealed.</p> <p>Currently the only way that the road would be considered for sealing would be if the residents are prepared to contribute toward the cost as part of Council's Policy 4112 Community Initiated Infrastructure - Roding Contribution. I have attached this policy for your reference.</p> <p>The details of the Policy can be found on the Far North District Council website. As a rough rule of thumb it costs \$300 000.00 per km to seal an unsealed road.</p> <p>Kind regards</p> <p>Donna Smith Team Leader - Customer Contact Centre District Services, Far North District Council 24-hour Contact Centre 0800 920 029 ddi +6494015213 donna.smith@fndc.govt.nz Website Facebook LinkedIn Careers</p>
28-Aug-2017 31-Aug-2017	3844896	Road Repairs - Potholes, Edge Breaks, Corrugations	<p>Ken Clark Koropewa Road, Waipapa 09 4078564</p> <p>Graded it over a week ago and there is just not enough metal anymore. The rain of lately has made the road slippery sludgy and muddy. Ken is asking if council can put some more metal onto the road so there is some traction for road vehicle users.</p>
28-Aug-2017 05-Sep-2017	3844928	Road Repairs - Potholes, Edge Breaks, Corrugations	<p>KOROPEWA ROAD KERIKRI reported by Peter Gill 021 809359</p> <p>states this road in poor condition metal all disappeared and road has turned to mud - dangerous can this be checked and investigated says this happens frequently another load of metal doesn't seem to be the answer</p>



Received Date	RFS No.	Request Type Description	Note Description
18-Sep-2017 19-Sep-2017	3848736	Road Repairs - Correspondence	<p>FROM.. Jennifer (& Kevin) Jeffries - Koropewa Road, Waipapa. .</p> <p>TO.. RDGC .</p> <p>SUBJECT.. Request response to their letter dated 29 Jan 17</p> <p>'Please refer to attached correspondence from January and February 2017. To date I have not yet received a reply regarding the roading issues for Koropewa Road...'</p> <p>Asoc RFS 3806097</p> <p>NOTE. FNDC did send a reply to 3806097, but to the wrong address. Kevin sent in the first letter. Unfortunately, an address update for Kevin was only made to the application address. Default address unchanged. Jennifer sends this letter. Default address is correct.</p> <p>23 Koropewa Road, RD 2 Kerikeri 0295</p> <p>CCS notified of incorrect default address. CCS ack ltr not sent.</p> <p>-----</p> <p>barry hicks mailroom</p>
05-Jan-2018 30-Jan-2018	3865053	Road Repairs - Potholes, Edge Breaks, Corrugations	25.01.2018, 11am Broadspectrum phoned Dan and left a voice message. Dan returned call at 1.00pm. Road is not Kapiro Road, correct road is Koropewa Road. Road is programmed to be graded. Close
08-Jan-2018 18-Jan-2018	3865170	Road Repairs - Potholes, Edge Breaks, Corrugations	<p>Duncan Christopher Harper 09 4077347</p> <p>Request for grader on Koropewa Road, Kerikeri as there are several deep potholes along this road.</p> <p>They are very hard on vehicles.</p> <p>Pls investigate and advise</p>
08-Jan-2018 08-Jan-2018	3865172	Road Repairs - Correspondence	<p>Duncan Harper 09 4077347</p> <p>Koropewa Road, Kerikeri</p> <p>Would like to know if there is any discussion within council regarding the sealing of the road</p> <p>The Icecream shop on this road brings about a lot of traffic - he feels in the summer it would bring up to 300 cars a day</p> <p>Pls advise</p>
11-Jan-2018 16-Jan-2018	3865733	Road Repairs - Potholes, Edge Breaks, Corrugations	Wendy Nagel of 124 Koropewa Road, Kerikeri 094079312 is asking when Koropewa Road is going to be sealed. She was told in 2011 the road was going to be sealed. She advises the potholes and corrugations are horrendous and are damaging their cars. There is also a major dust problem which is going into their water tanks. The worst potholes in question are by the small bridge at the bottom of the hill, and within the



Received Date	RFS No.	Request Type Description	Note Description
			first 500mtrs of the top of the road. She is asking for urgent attention to this problem.
11-Jan-2018 17-Jan-2018	3865816	CEO Correspondence	<p>Subject: Website RFS - issue type: Ann - from Ann Court</p> <p>A Request For Service (RFS) has been received from . The following request has been submitted: Request details</p> <ul style="list-style-type: none"> • Location of issue*: Koropewa Road Waipapa • Issue type*: Road maintenance • How can we help?*: I received a phone call this morning from a resident complaining about the condition of the road. He said that a crew had been onsite yesterday filling in potholes but had gone and there were still significant potholes and corrugations and the road needs attention. He has been unable to raise Council via the RFS (phone) system and has requested me to raise this on his behalf. • Attach a file or photo: No file uploaded • Attach a file or photo: No file uploaded • Attach a file or photo: No file uploaded <p>Your details</p> <ul style="list-style-type: none"> • First name*: Ann • Surname*: Court • Email address*: ann.court@fndc.govt.nz • Phone*: 0272955550 <p>Postal address:</p> <p>Further information</p> <ul style="list-style-type: none"> • Have you contacted us before about this issue?*: No • RFS number: • How would you like us to respond?*: Email
11-Jan-2018 17-Jan-2018		CEO Correspondence	<p>Good afternoon Stuart</p> <p>Below is a copy of my email of acknowledgement to Cr Court. Could you please consider the request and provide me with an initial or final response timeframe that I could forward to her.</p> <p>Regards Nicole</p> <p>Sent: Friday, 12 January 2018 6:10 p.m. To: Ann Court Subject: RE: RFS3865816 - Koropewa Road, Waipapa (road repair)</p> <p>Good evening Ann</p> <p>On behalf of the Chief Executive Office I acknowledge receipt of your roading repair request. This will be assigned to Stuart Beaven, Roothing Engineer for his investigation and action. I am currently pending a promise timeframe which I will forward once received. Note the request for service has been logged under RFS 3865816.</p> <p>Regards</p>



Received Date	RFS No.	Request Type Description	Note Description
			<p>Nicole</p> <p>Nicole Wooster Executive Assistant to the Chief Executive Officer Corporate Services, Far North District Council 24-hour Contact Centre 0800 920 029 ddi +6494015211 m 021458611 Nicole.Wooster@fndc.govt.nz</p>
11-Jan-2018 17-Jan-2018		CEO Correspondence	<p>From: Nicole Wooster Sent: Tuesday, 16 January 2018 11:57 a.m. To: Ann Court Subject: RE: RFS3865816 - Koropewa Road, Waipapa (road repair)</p> <p>Good morning Ann</p> <p>The contractor has advised that they completed the pothole repairs yesterday (Monday 15 Jan 18). Grading of the road is also programmed to be undertaken within the next 15 working days.</p> <p>I trust this satisfies your request and that I may update and close the RFS?</p> <p>Regards Nicole</p> <p>Nicole Wooster Executive Assistant to the Chief Executive Officer</p>
11-Jan-2018 17-Jan-2018		CEO Correspondence	<p>From: Ann Court Sent: Tuesday, January 16, 2018 7:49 PM To: Nicole Wooster Subject: Re: RFS3865816 - Koropewa Road, Waipapa (road repair)</p> <p>Thank You Nicole</p> <p>Sincerely appreciated. The RFS can be closed.</p> <p>Kindest regards Ann Court</p> <p>Councillor Bay of Islands Whangaroa Ward Far North District Council</p>
12-Jan-2018 16-Jan-2018	3866076	Road Repairs - Potholes, Edge Breaks, Corrugations	<p>Kevin Valtcheff from 16 Koropewa Road Waipapa has complained about the state of Koropewa Road, they potholes are very deep, boats are bouncing around on trailers. They did a grading not too long ago and didn't put enough metal in the holes and now they are deeper than ever. Lots of trucks are now also using this road.</p>
17-Aug-2018 27-Aug-	3906092	Road Repairs - Potholes, Edge Breaks,	<p>Peter Gill – 09 4078216 150B Koropewa Road, Waipapa Between 148 Koropewa and the corner where the intersection joins Ngapuhi Road, needs metal. Vehicles are driving on mud and the road is</p>



Received Date	RFS No.	Request Type Description	Note Description
2018		Corrugations	all slushy.
05-Mar-2019 14-Mar-2019	3939492	Road Repairs - Potholes, Edge Breaks, Corrugations	<p>Good morning Kevin and Jennifer,</p> <p>Thank you for contacting the Far North District Council.</p> <p>I have looked at the notes pertaining to the request for service and found the following information:</p> <p>21.02.2019 Broadspectrum Roothing phoned customers - no reply or answer service. The site is currently being inspected, further contact to follow regarding findings.</p> <p>20.02.2019 Broadspectrum Roothing phoned customer, no reply or answer service. The vegetation has been cut back the same day. Close</p> <p>In relation to the maintenance of the road I have put a request through to the Roothing Department. Your reference number is RFS:3939492.</p> <p>We thank you for taking the time to contact us. Please do not hesitate to visit our website for more information www.fndc.govt.nz, call our friendly customer service staff on 0800 920 029 or 09 4015 200 or email ask.us@fndc.govt.nz.</p> <p>Kind regards</p> <p>Janie Little</p> <p>-----Original Message----- From: Jenny Wilkinson [mailto:jennywilk@xtra.co.nz] Sent: Monday, 4 March 2019 11:36:38 a.m. To: Ask Us Team Subject: Corres ref 3931954- Overhanging trees on Koropewa Road, Waipapa</p> <p>We have not as yet received a reply to a letter received by you on 24 January 2019 and would appreciate an answer as soon as possible. Along with other residents of Koropewa Road ,rates are paid, yet we have no sealed road [extremely dusty this summer], no street lighting or footpaths, and we depend on tank water. As Koropewa Road continues to have increased building activity, we wonder if any changes will happen in the near future?.</p> <p>Meantime we are left with the issue of overhanging trees which continue to create safety issues.</p> <p>Your assistance with this would be appreciated.</p> <p>Kevin and Jennifer Jeffies 104A Koropewa Road, Waipapa Ph 09 4074078</p>



Received Date	RFS No.	Request Type Description	Note Description
05-Mar-2019 14-Mar-2019		Road Repairs - Potholes, Edge Breaks, Corrugations	<p>1. Name: - Kevin and Jennifer Jeffries</p> <p>2. Address: - 104A Koropewa Road, Waipapa</p> <p>3. Contact Details: - 09 4074078</p> <p>4. Fault Information: - Maintenance of road</p> <p>5. Fault location –(ie: nearest mailbox, rapid or culvert no): 104A</p> <p>6. Is it on a sealed or unsealed road? Unsealed</p> <p>7. How big is the pothole? numerous potholes needs grading aswell</p> <p>8. Is there a safety issue here?n/a</p> <p>9. Additional information: -</p>
05-Mar-2019 14-Mar-2019		Road Repairs - Potholes, Edge Breaks, Corrugations	<p>From: Ask Us Team Sent: Wednesday, 6 March 2019 10:43 a.m. To: Jenny Wilkinson Subject: REF RFS 3939492 RE: Corres ref 3931954- Overhanging trees on Koropewa Road, Waipapa</p> <p>Kia ora, Jenny and Kevin.</p> <p>I have added your message to RFS 3939492.</p> <p>We thank you for taking the time to contact us. Please do not hesitate to visit our website for more information www.fndc.govt.nz, call our friendly customer service staff on 0800 920 029 or 09 4015 200 or email ask.us@fndc.govt.nz.</p> <p>Kind regards Anja</p> <p>Ask Us Team</p> <p>-----Original Message----- From: Jenny Wilkinson [mailto:jennywilk@xtra.co.nz] Sent: Tuesday, 5 March 2019 2:40:37 p.m. To: Ask Us Team Cc: Janie Little Subject: Re: REF RFS 3939492 Corres ref 3931954- Overhanging trees on Koropewa Road, Waipapa</p> <p>Hi- we gave our phone number as 09 4074078 and we have an answerphone in place. As we are retired we are home most of the time. We notice that some minor work has been done at the beginning of Koropewa Rd in relation to vegetation, but not in respect of overhanging trees. We await a further reply.</p>



Received Date	RFS No.	Request Type Description	Note Description
			Jenny and Kevin Jeffries.
05-Mar-2019 14-Mar-2019		Road Repairs - Potholes, Edge Breaks, Corrugations	<p>From: Jobin Sebastian Sent: Wednesday, March 06, 2019 11:55 AM To: Elbie Serfontein Cc: Stuart Beaven Subject: RE: RFS3939492 - Koropewa Road</p> <p>Hi Elbie,</p> <p>Can you please refer this RFS back to BSL and please add my noted to the RFS</p> <p>Good morning, I have visited 104A Koropewa Road yesterday, met Kevin onsite and he showed me the locations where the issues of overhanging trees are. Kevin has requested whether it is possible to complete all the tree works by April, because they have planned for moving a large house into their property.</p> <p>The first one is a flame tree located at Rp: 0.150 at Right side and is within our required envelope dimensions and so we won't be doing any vegetation maintenance. There are also few other flame trees, which are located at RP: 1.000- 1.150 on Left side, which is less than 4.5m above the roadway and needs Routine vegetation Trimming. This is now passed to contractors to get programmed and done.</p> <p>If the customer want the first over hanging tree to be trimmed further to suit their house moving, Customer can do it at their own cost and can directly negotiate with the contractor (BSL).</p> <p>Photos attached.</p> <p>Regards,</p> <p>Jobin Sebastian Roading Inspector</p>
05-Mar-2019 14-Mar-2019		Road Repairs - Potholes, Edge Breaks, Corrugations	<p>From: Aaron Reilly Sent: 5 March, 2019 2:44 PM To: Elbie Serfontein Cc: Franz Wagner; Jaco Cronje; Stuart Beaven; Jobin Sebastian Subject: RE: RFS3939492 - Koropewa Road</p> <p>Hi Elbie,</p> <p>There is no clear need for streetlights on this road. Koropewa Road is a low volume, unsealed rural road. There is no night crash history that would suggest streetlights are required to mitigate a traffic safety issue. There are many roads around the district that would benefit from improved lighting, Koropewa Road is not one of them.</p>



Received Date	RFS No.	Request Type Description	Note Description
			Regards Aaron Reilly Lighting & Transport Operations Specialist
05-Mar-2019 14-Mar-2019		Road Repairs - Potholes, Edge Breaks, Corrugations	From: Jaco Cronje Sent: 6 March, 2019 10:01 AM To: Elbie Serfontein Subject: RE: RFS3939492 - Koropewa Road Hi Elbie No footpath are on the Future footpaths list and I would suggest the customer should raise the footpath request with the Community board. Regards, Jaco Cronje Project Manager - Footpaths & Cycleways
26-Jun-2019 01-Jul-2019	3959869	Road Repairs - Potholes, Edge Breaks, Corrugations	1. Name: - Chris 2. Address: - Koropewa Road, Waipapa 3. Contact Details: - 09 4078 288 4. Fault Information: - Scattered Potholes that are approx 4inchs deep 5. Fault location –(ie: nearest mailbox, rapid or culvert no): First kilometre of the road 6. Is it on a sealed or unsealed road?unsealed 7. How big is the pothole? 4inchs deep and lots scattered together 8. Is there a safety issue here? yes 9. Additional information: - Need to drive on both sides of the road to avoid potholes
26-Jun-2019 01-Jul-2019		Road Repairs - Potholes, Edge Breaks, Corrugations	01.07.2019 Customer call back not requested. Koropewa Road has been inspected, pothole repair and grading works programmed to commence the first two weeks of July. Close
01-Jul-2019 02-Jul-2019	3960707	Road Repairs - Potholes, Edge Breaks, Corrugations	1. Name: - Ken Clark 2. Address: - Koropewa Road, Waipapa 3. Contact Details: - 09 4078 564 4. Fault Information: - Grading alot of potholes



Received Date	RFS No.	Request Type Description	Note Description
			<p>5. Fault location –(ie: nearest mailbox, rapid or culvert no): The whole road upto Nagpuhi road</p> <p>6. Is it on a sealed or unsealed road? Unsealed</p> <p>7. How big is the pothole? 75mm deep and pot holes that go across the road</p> <p>8. Is there a safety issue here?</p> <p>9. Additional information: - It needs grading and metalling</p>
01-Jul-2019 02-Jul-2019		Road Repairs - Potholes, Edge Breaks, Corrugations	02.07.2019 Customer call back not requested. Koropewa Road has been inspected, the grader is currently working in the area, Koropewa Road is programmed to be graded as part of this round. Close
26-Sep-2019 03-Oct-2019	3975261	Roading Correspondence	<p>Christine Goldsmith foxychris.x@gmail.com 0273431304</p> <p>Wanting to attain the following Roding Matrix for roads that Council is going to seal</p> <ul style="list-style-type: none"> • Porotu Road • Puketi Road • Otangaroa Road • Koropewa Road
10-Oct-2019 04-Nov-2019	3977302	Roading Correspondence	<p>Rob Lavender – 0275-547777 Email: roblavender@icloud.com 122 Koropewa Road, Waipapa</p> <p>Customer has heard that Koropewa Road may be getting tarsealed in the near future and is wanting to know if you could email him any information about this please.</p>
10-Oct-2019 04-Nov-2019		Roading Correspondence	<p>From: Franz Wagner Sent: Friday, 1 November 2019 4:57 PM To: Elbie Serfontein; Roding Alliance Subject: RE: Allocated: RFS 3977302 Priority 3: Roads and Stormwater Correspondence</p> <p>Good afternoon Mr. Lavender,</p> <p>Koropewa Road is part of the set of three roads identified under NZTA's Circular 16/04 (https://www.nzta.govt.nz/assets/resources/general-circulars/docs/16-04.pdf), and is being presented to NZTA in a business case to obtain central government subsidised funding. Koropewa Road is the third road after Otangaroa Rd and Church Rd. The seal extension will only go ahead if this road gets approval from NZTA. This has not been decided yet and it's worth noting that the business case approval a discrete process without FNDC involvement. As such We cannot even make any predictions when a decision in this case will be reached.</p> <p>Yours sincerely,</p>



Received Date	RFS No.	Request Type Description	Note Description
			Franz Wagner
10-Oct-2019 04-Nov-2019		Road Repairs - Correspondence	<p>From: Franz Wagner Sent: Friday, 1 November 2019 4:57 PM To: Elbie Serfontein; Road Repairs Alliance Subject: RE: Allocated: RFS 3977302 Priority 3: Roads and Stormwater Corresponden</p> <p>Hi Jane Can you please inform the customer and close RFS? Thanks.</p> <p>Good afternoon Mr. Lavender,</p> <p>Koropewa Road is part of the set of three roads identified under NZTA's Circular 16/04 (https://www.nzta.govt.nz/assets/resources/general-circulars/docs/16-04.pdf), and is being presented to NZTA in a business case to obtain central government subsidised funding. Koropewa Road is the third road after Otangaroa Rd and Church Rd. The seal extension will only go ahead if this road gets approval from NZTA. This has not been decided yet and it's worth noting that the business case approval a discrete process without FNDC involvement. As such We cannot even make any predictions when a decision in this case will be reached.</p> <p>Yours sincerely, Franz Wagner</p>
06-Dec-2019 09-Dec-2019	3986137	Road Repairs - Potholes, Edge Breaks, Corrugations	<p>Geoff Tilley 88 Koropewa Road Kerikeri 09 4078288 3 test sections along Koropewa Road neatly missing their house out. Wanting to know what the logic in this was? There are certain straights where there are no dwellings and yet there are dust suppressant test strips there. Please contact him back to discuss how this was determined</p>
06-Dec-2019 09-Dec-2019		Road Repairs - Potholes, Edge Breaks, Corrugations	<ol style="list-style-type: none"> 1. Name: - Geoff Tilley 2. Address: - 88 Koropewa Road Kerikeri 3. Contact Details: - 09 4078288 4. Fault Information: - 3 test sections along Koropewa Road neatly missing their house out. Wanting to know what the logic in this was? There are certain straights where there are no dwellings and yet there are dust suppressant test strips there. Please contact him back to discuss how this was determined. 5. Fault location –(ie: nearest mailbox, rapid or culvert no): 88



Received Date	RFS No.	Request Type Description	Note Description
			<p>6. Is it on a sealed or unsealed road?Unsealed</p> <p>7. How big is the pothole?</p> <p>8. Is there a safety issue here?</p> <p>9. Additional information: -</p>
06-Dec-2019 09-Dec-2019		Road Repairs - Potholes, Edge Breaks, Corrugations	<p>From: Geoff Tilley Sent: Tuesday, 10 December 2019 4:10 PM To: Roading Alliance Subject: Re: RFS 3986137 - Koropewa Rd</p> <p>Hello Franz, Thank you for your full and comprehensive answer to our enquiry. There is however one small flaw. Part of 88 Koropewa Roads' living space is actually within the 25m zone of the dust road. Therefore we feel the section of road outside of this property should have also been treated. Can this now be arranged please? Looking forward to hearing from you. Yours sincerely Geoff Tilley</p>
22-Jan-2020 24-Jan-2020	3991616	Road Repairs - Potholes, Edge Breaks, Corrugations	<p>Ken Clark – 09 407 8564 148 Koropewa Road, Kerikeri Customer has called to request the rest of Koropewa Road please have dust suppressant laid as the dust affects all residents along this road not just those that houses are within 25m of the road.</p>



Received Date	RFS No.	Request Type Description	Note Description
22-Jan-2020 24-Jan-2020		Road Repairs - Potholes, Edge Breaks, Corrugations	<p>Letter sent to customer via post</p> <p>Good Morning Mr. Ken Clark,</p> <p>Thank you for contacting the Far North District Council regarding problems you are experiencing with road dust particularly at 148 Koropewa Road, Kerikeri.</p> <p>The Council shares your concerns about road dust, particularly the negative impacts that prolonged exposure can have on health and the impact it has on water supply. Road dust is a significant issue throughout Northland, but particularly on roads frequently used by heavy vehicles. Due to the limited available budget, FNDC will proceed to provide dust suppression treatment to house sites where:</p> <ul style="list-style-type: none"> • houses are within 25m from the road, • the average speed environment of LDV (light duty vehicle — vehicle with a gross vehicle mass of less than 3,500kg) is greater than 60km/hr • the traffic volume is greater than 130 vehicles / 24hr and • the Heavy Commercial Vehicle (HCV) component is at least 20 HCV/24hr. <p>Houses that fulfil all four above criteria will receive dust suppression as being the houses that are evidently hardest hit.</p> <p>Based on these parameters having been met, you are probably pleased that 148 Koropewa Road, Kerikeri has been included in FNDC 2019/20 dust suppression programme. Our records show that RDC suppressant was applied on 05/12/2019 at your property. There are however a number of properties on Koropewa Road that do not meet these thresholds. Please accept that the FNDC is not uncaring to their situation and the vastly increased dust management campaign being rolled out this year is testament to that. FNDC's primary obligation in the roads space is however to provide a minimum level of service to facilitate vehicular (and pedestrian) traffic to move throughout the district. Dust is a "serious side effect" of traffic that FNDC tries to manage with the money that has been attributed to this. The most cited trouble residents complaining about dust is the effects on their health. As such, other government institutions that have public health as their primary obligation are being incited to help with combating health impacting traffic generated road dust.</p> <p>Given that a number of other properties have not met the threshold that would trigger FNDC's dust mitigation campaign, FNDC will extend to you an informal arrangement to work collaboratively with any party (mainly forestry companies) who wish to apply dust suppression on FNDC roads. This means that the collaborating organisation provides the suppressant and FNDC will take care of the application and then halt on grading during the working life of the dust control product. This is not policy. It's an arrangement that works in most circumstances for the best outcome for residents, FNDC and commercial interests whilst respecting the various legalities and funding rules. You would therefore have the</p>



Received Date	RFS No.	Request Type Description	Note Description
			<p>opportunity to pay Rainstorm for the Magnesium Chloride. The recommended application rate is 2ltr/m2 and to be effective when taking dust drift into consideration, a 200m strip at 6m wide would be recommended. The cost of the product would be in the region of \$2,400.00 that you would pay Rainstorm. Once you have reached agreement and made payment, Rainstorm will contact FNDC, programme the work (application) and FNDC will pay for the application portion of the overall cost.</p> <p>Contact details: Mark McDonnell Mob: 0210788631 Email: mark.mcdonnell@m3civil.co.nz Rainstorm Investments Limited, 629 Paparimu Road RD3 Papakura 2583 Auckland</p> <p>Yours sincerely,</p> <p>Franz Wagner Capital Works Project Manager</p>
31-Jan-2020 03-Mar-2020	3993205	Roading Works - NOT TO BE USED BY CSO	<p>Christine Goldsmith 027 3431304 foxychris.x@gmail.com</p> <p>Can roading matrix be sent through for Koropewa Road, Kerikeri</p>



Far North
District Council

Appendix 3 – Map of the Route, Potential Mitigation Length and House Locations





**Far North
District Council**

**Appendix 4 - Dust Assessment using the NZTA General Circular
Investment: No 16/04**



Koropewa Road (RP 15-1,675) Dust Risk Assessment

Dust Risk Assessment (from NZTA *General Circular Investment: No 16/04*):

Traffic

- 5 Day AADT = 389 vpd (count date 28/01/2019)
- HCV% = 8%
- 5 Day HCV AADT = 31 HCV/day
- 5 Day LDV AADT = 358 LDV/day

Receptors

- Houses = 24 houses within 80m of road over 1.6km or 14 houses per km.
- There are 4 horticulture sensitive areas along the route, or 2 per km.

Site Characteristics

- Located in an open plains area.
- Rainfall >5mm occurs 0 to 1 events per week on average.
- Longevity – not a logging route so longer than 3 years.

Site Dust Risk Factors and Scores

Risk factor/score	0	1	2	3	4	5
Traffic						
5 day AADT of HCVs	0	1-5	6-10	11-25	26-50	More than 50
Speed limit of HCVs (km/h)	No HCVs	20 km/hr	50 km/h or greater			
5 day AADT of LDVs	Less than 100	101-300	More than 300			
Speed of LDVs (km/h)	Less than 50	50-70	Greater than 70			
Receptors (within 80m of roadway)						
Number of dwellings (houses/km)	0	1	2-4	5-7	8-10	More than 10
Other locations where people are likely to be exposed. (e.g. schools, marae, or hospitals) (sensitive locations/km)	None	1-2	3 or more			
Ecologically sensitive areas such as rare species habitats or wetlands (sensitive locations/km)	None	1-2	3 or more			
Horticultural sensitive areas such as fruit orchards (sensitive locations/km)	None	1-2	3 or more			
Site characteristics						
Location of roadway	Open plains or coastal area	Some land features likely to slow winds	Inland enclosed valley			
Frequency of rain days (>5mm)	More than 2 events per week	0-1 events per week	Less than one event every two weeks			
Longevity of logging route use	Not a logging route	1-2 years	Longer than 3 years			

Total Dust Risk Score = **19**

Dust Risk Category and Action to be Taken

Total dust risk score	Dust risk category	Potential benefit from dust mitigation	Action to be taken
0 to 9	Low	Little or no benefit from mitigation.	End of decision-making process.
10 to 19	Medium	There may some benefit from mitigation.	Return to and repeat the 'Site dust risk factors and scores' with refined site- specific information.
20 to 28	High	There is likely to be a benefit from mitigation.	Complete assessment of suitable mitigation options.

Based on a score of **19** the site has a Dust Risk Category of Medium.

This requires a return and repeat of the 'Site Dust Risk Factors and Scores' with refined site-specific information. However, NZTA Research Report 590 *Impacts of exposure to dust from unsealed roads* [April 2017] provides further guidance of this and recommends that an assessment can be undertaken to compare the site specific information

of the site under consideration to that of the site that was monitored in the research report, namely Mataraua Road in the Far North District:

Section 7.3 Medium dust risk:

'A more detailed site-specific assessment of the dust risk would consider how the site being assessed for dust risk differs from (or is similar to) Mataraua Road. Given this comparison the site dust risk score can be re-assessed and move into either the high- or low-risk category. If after the refined assessment, the site dust risk moves into the high-risk or remains in the medium-risk category it is recommended the high dust risk route in the assessment pathway be taken'

This is the approach we have adopted as we cannot further refine the factors in the Site Dust Risk Factors and Score Table.

A comparison has also been undertaken with Pipiwai Road which is the site assessed in the April 2019 report *Health Impacts of PM₁₀ from Unsealed Roads in Northland* (Emission Impossible Ltd) prepared for the Ministry of Health.

Site specific comparison to Mataraua Road and Pipiwai Road sites

Site	Houses per km	AADT – all vehicles	AADT - Trucks	No. Days > PM ₁₀ NES	Dust Risk Score	Notes
Pipiwai Road		117	32	27 (7%)	18	One exceedance of the 24-hour NES for PM ₁₀ is permitted within any 12-month period
Mataraua Road (NZTA Circular 590)	8-10	>300	>50		20	Dust Risk Score adjusted to exclude score of 2 for 'Nuisance effects for residents (complaints/year)'
Koropewa Road	14	389	31		19	Dust Risk Score adjusted to include score of 2 for 'Longevity'

Key conclusions of the *Health Impacts of PM₁₀ from Unsealed Roads in Northland* (Emission Impossible Ltd) report regarding PM₁₀ exposure are:

- The monitoring recorded 27 exceedances of the 24-hour NES for PM₁₀ (one exceedance is permitted within any 12-month period).
- Rainfall measured during the monitoring period suggests that the Pipiwai dataset may not represent worst-case conditions for dust generation.
- Overall, the monitoring at Pipiwai Road suggests that there is a significant risk of exceedance of PM₁₀ NES near unsealed roads with more than 40 trucks per day.
- It should be noted that this threshold is based on **PEAK** daily traffic, not annual average daily traffic. For example, over the monitoring period at Pipiwai Road, the annual average daily traffic for trucks was 32. However, over the same time period there were 101 days with more than 40 trucks per day and there were 27 exceedances of the PM₁₀ NES.
- The findings at Pipiwai are consistent with the results of previous monitoring of PM₁₀ near unsealed roads in New Zealand, which has also revealed multiple exceedances of health-based air quality criteria (Northland Regional Council, 2013, Watercare Laboratory Services, 2016, Bluett *et al.*, 2016).

The NZTA Research Report 590 *Impacts of exposure to dust from unsealed roads* [April 2017] states that:

'If after the refined assessment, the site dust risk moves into the high-risk or remains in the medium-risk category it is recommended the high dust risk route in the assessment pathway be taken'

Koropewa Road has an ADT of 31 trucks per day. This is very similar to the Pipiwai Road ADT of 32 trucks per day that resulted in 27 exceedances of the PM₁₀ NES. It is therefore highly likely that there would be a significant number of days on Koropewa Road with exceedances of the PM₁₀ NES. This strongly supports the recommendation that dust mitigation is required to protect the health of the adjacent residents.

High Dust Risk Score Process

Table 7.3 Assessment criteria for defining suitable dust mitigation options

Mitigation option	Permitted or discretionary activity under the relevant regional resource management plan	Suitable traffic volume	Longevity of the dust mitigation option	Rainfall frequency and intensity
Sealing the road	Yes ✓	High – unlimited ✓	10+ years ✓	✓
Magnesium chloride	To be confirmed ✓	Medium ~250 AADT ✓	Medium – three to four months ✓	Duration of effectiveness is reduced in high rainfall areas. Roadway can become slippery. ✓
Lignin sulphate	To be confirmed	Light <100 AADT ✗	Short – requires frequent refreshing	Duration of effectiveness is reduced in high rainfall areas.
Synthetic polymer emulsions	To be confirmed	Light <100 AADT ✗	Short – requires frequent refreshing	Duration of effectiveness is reduced in high rainfall areas.

On the basis of this assessment, only two options are considered feasible as follows:

- Sealing the road; and
- Dust suppression using Magnesium Chloride.

The Lignin Sulphate and Synthetic Polymer Emulsions dust suppression options have not been considered further due to being unsuitable given the traffic volumes on the site.