



Hearing 8 – Bellingham Quarries

Submissions covered: S7.001, S7.002 S7.003,
S7.004, S7.005, S7.006

Introduction – Experience and history

- Jarrod Bellingham – Manager, 9+ years experience.
- David Bellingham – Managing Director, 49+ years experience.
- Brian Bellingham - Managing Director, 49+ years experience.
(absent)
- Bellingham Quarries has been operating in the district since 1934
- 4 generations in Far North, 5 total in aggregate/extraction industry
- So, we have firsthand experience in FND resource deposits

Section 42a report

- Thanks to Lynette, for efforts in our industries' interests
- Support recommendations of Mineral Zone and Paragraph 99 (S7.002).

Response to recommendations of rejected submission:

- We realise that not enough information has been supplied in relation to matters of paragraph 103. and other related paragraphs.
- It is our aim today to justify under the criteria of para. 74. why our sites are significant and that the expansions should be recommended.

Presentation Outline

- Industry Background Information
 - Aggregate Demand
 - Deposit Scarcity
 - Benefit of Location
 - Expansion \neq More Extraction
 - FNDC Study aggregate resources
- Submissions
 - Small local sites (satellites)
 - Larmer road – Major site

Industry Background related to submissions

Demand

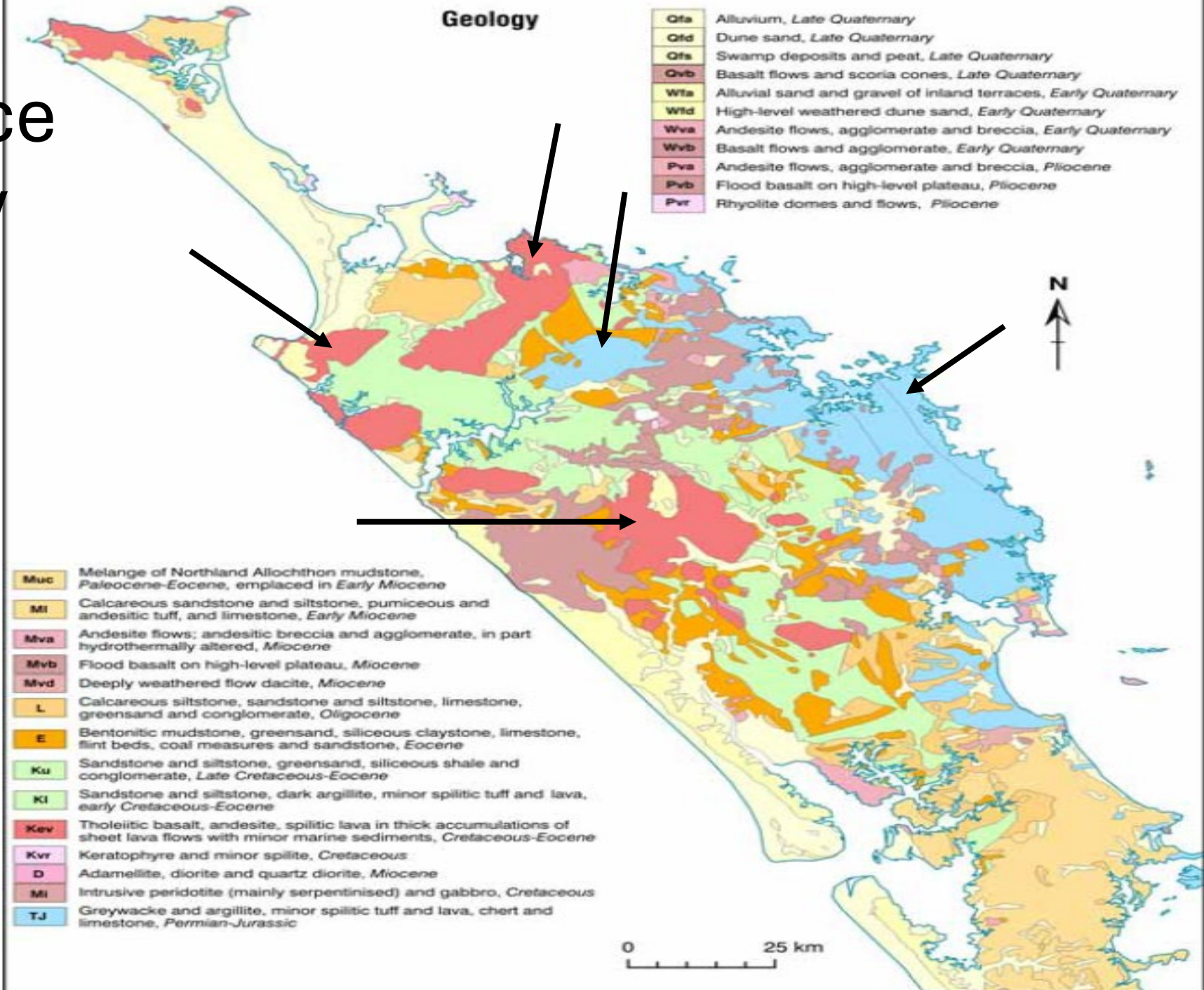
- FND/NZ uses aggregate for roading, building, fill, and protection (waterways)
- NZ quarry conference GNS science report – per capita consumption, 17.6 tonnes per person per year. NZ average = 8.4t
- Consumption directly, but mostly by proxy (roads, wood)
- Population is projected to grow.

Resource Scarcity

- GNS science report 2021 covers constraining factors applying to aggregate resource and remaining areas of opportunity.
 - Geological constraints (where it is)
 - Viability to the market (distance/demand)
 - Land use types restricting extraction (urban, conservation, water bodies..)
 - Cultural sensitivity (heritage sites, visual impact.
 - The list goes on....
- It does not allow for public apprehension to have quarries near them (consenting process).

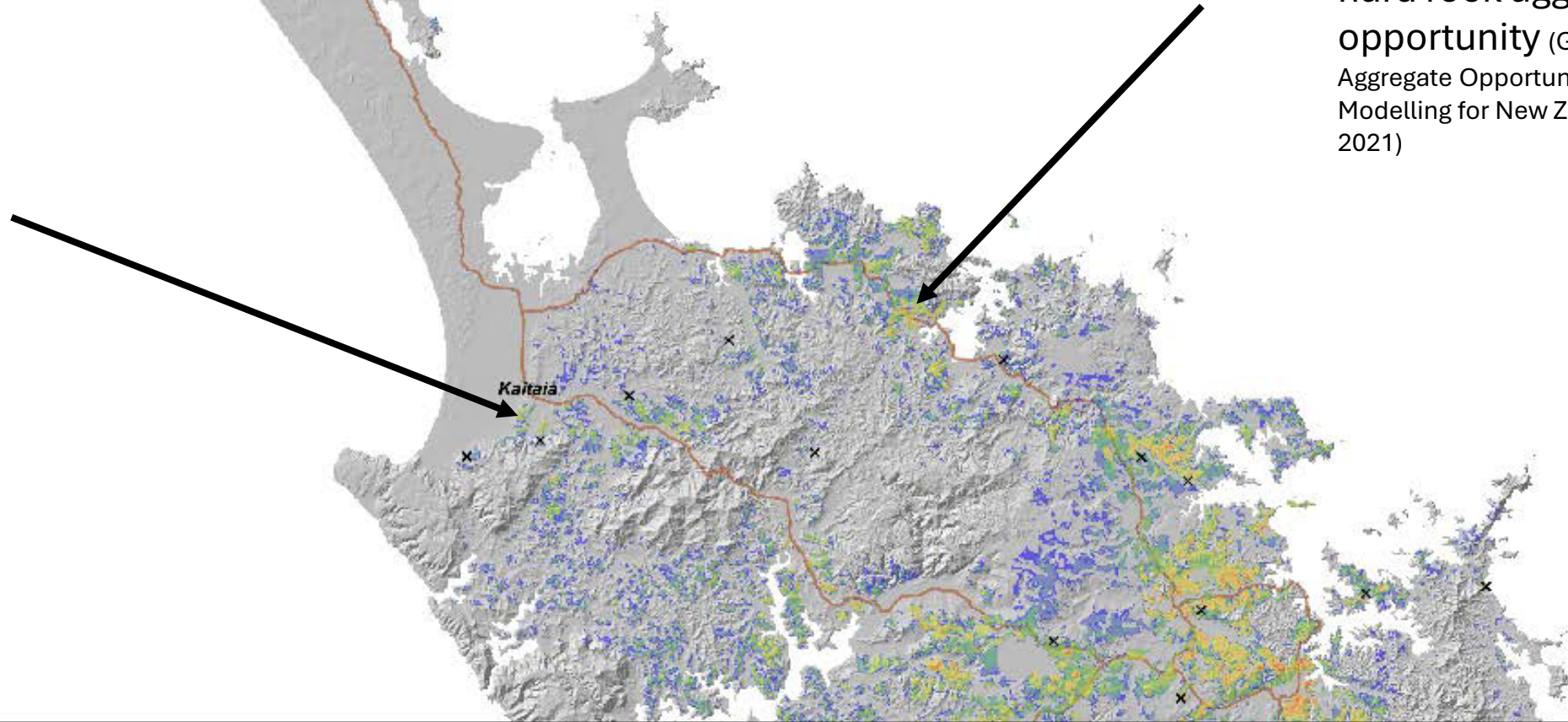
Resource Scarcity continued

Figure 1: Geological make up of Northland
(Aggregate Resources Study for FNDC, Stage 1 2015)



Resource Scarcity *continued*

Figure 2: GNS science, heat map of hard rock aggregate opportunity (GNS Aggregate Opportunity Modelling for New Zealand 2021)



SCALE BAR: 0 10 20 30 40 50 km

EXPLANATION: Results of aggregate opportunity modelling for hard rock includes
Biblicus, basins of magmatic, sandstone, basalt, and the concrete

DRW:
MPH



Aggregate Opportunity Modelling
- Hard rock model results -
Northland

APPENDIX 2

Map 1

Benefit of Location

- A constraint mentioned earlier is location in relation to market
- GNS report, and other industry professionals, (AQA).
- “ the cost of aggregate doubles every 30km of travel”
- This is important in relation to our submissions for satellite sites, due to the cost reduction for FNDC and NZTA road building and maintenance.

More Expansion Is NOT More Extraction

- An expanding extraction area does not necessarily correlate with an increase of volume extracted.
- Physical limits on extracting legally and safely drive the need to expand the extraction area, as well as maintained demand.
(MOQO 2016 regs, topography of site, general extraction process)
- Current PDP allows for NO continued extraction (expect 1-3 years all sites to exceed PDP boundaries)

FNDC Study suggests expanded MZ

- *Aggregate Resources Study for FNDC stage 1 2015 , Barry Larsen, Murray Stevens.*
- *“Mineral zones around quarries are not as large as they might be. In order to protect the long term (20-50 years or more) security of supply, quarries may need to consider this issue” – page 16 Aggregate Resources Study for FNDC stage 1 2015.*

Satellite Submissions S7.001, S7.003, S7.004, S7.005

- S7.003 – we are no longer pursuing; longevity of site is in question.
- S7.001, S7.004, S7.005 – we believe are significant extraction sites and the expansion of the extraction area need to be allowed.
- These meet multiple of the criteria outlined in S42a (para. 74) report namely:
 - a) relative scarcity ✓
 - b) current or potential contribution to the regional economy from the extraction ✓
 - c) current and potential demand, and location with respect to demand ✓
 - d) constraints on extraction including existing or planned settlement access to the site ✓
 - e) constraints on other development and land use as a result of extraction ✓
 - f) quality and size of deposit ✗
 - g) Average annual extraction rate of minerals (more than 50,000 tonnes per annum for aggregates) ✗
 - h) Importance of infrastructure development ✓

Satellite Submissions S7.001, S7.004, S7.005. *Continued*

- a) **relative scarcity** ✓ - *discussed earlier (GNS mapping, Public apprehension)*
- b) **current or potential contribution to the regional economy from the extraction** ✓ - *discussed earlier (distance travelled saves outright and future costs)*
- c) **current and potential demand, and location with respect to demand** ✓ *discussed earlier (distance travelled saves outright and future costs), also local operators/owners.*
- d) **constraints on extraction including existing or planned settlement access to the site** ✓ - *discussed earlier (outlined by GNS map constraints/listed constraints)*
- e) **constraints on other development and land use as a result of extraction** ✓ - *discussed earlier (outlined by GNS map constraints/listed constraints)*
- f) **quality and size of deposit** ✗
- g) **Average annual extraction rate of minerals (more than 50,000 tonnes per annum for aggregates)** ✗
- h) **Importance of infrastructure development** ✓ - *discussed earlier (distance travelled saves outright and future costs to infrastructure).*

Larmer road Submission S7.006

- a) **relative scarcity** ✓ - *discussed earlier (GNS mapping, Public apprehension)*
- b) **current or potential contribution to the regional economy from the extraction** ✓ - *discussed earlier (distance travelled saves outright and future costs)*
- c) **current and potential demand, and location with respect to demand** ✓ *discussed earlier (distance travelled saves outright and future costs), also local operators/owners.*
- d) **constraints on extraction including existing or planned settlement access to the site** ✓ - *discussed earlier (outlined by GNS map constraints/listed constraints)*
- e) **constraints on other development and land use as a result of extraction** ✓ - *discussed earlier (outlined by GNS map constraints/listed constraints)*
- f) **quality and size of deposit** ✓ - *Larmer road is an expansive deposit meeting the most stringent of aggregate specifications.*
- g) **Average annual extraction rate of minerals (more than 50,000 tonnes per annum for aggregates)** ✓ - *average annual extraction meets this quantity thrice over.*
- h) **Importance of infrastructure development** ✓ - *discussed earlier (distance travelled saves outright and future costs to infrastructure).*

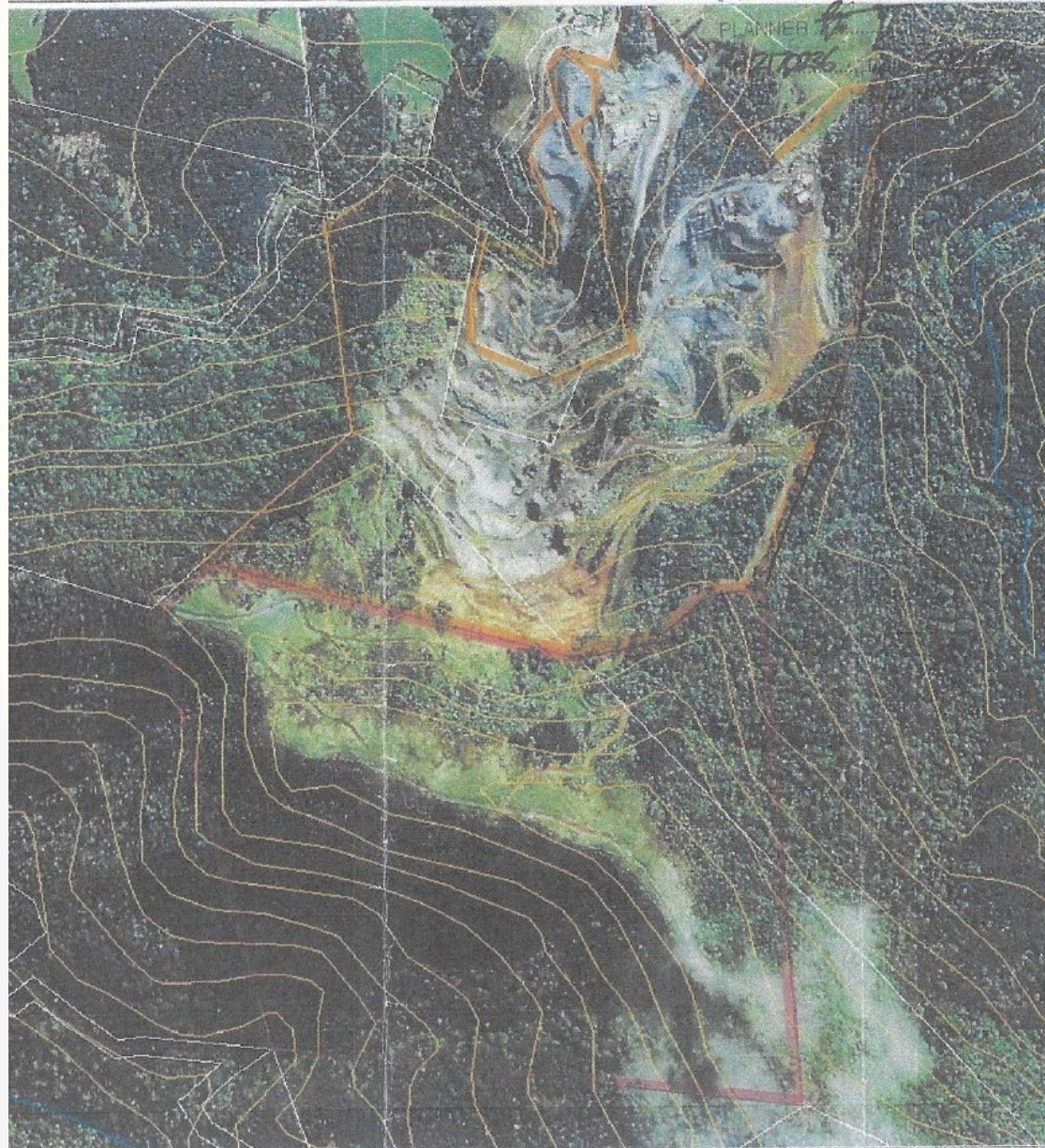
Larmer road Submission S7.006 *continued*

- Larmer road meets all the prescribed criteria.
- 377 Larmer road, is a significant extraction resource. Recognised as being 'large' by FNDC independent consultant study, Barry Larsen and murray stevens 2015.


Area missed in PDP

- FNDC consent number: 2170236-RMALUC has not been encompassed by the overlay/zone. A total of 32.197 hectares has been neglected and should be protected further with zoning.

APPROVED PLAN



PLANNER
10/1/2016

urrent
n.  Extended mining permit area (Crown Minerals) and
area Bellingham Quarries Ltd wish to develop.

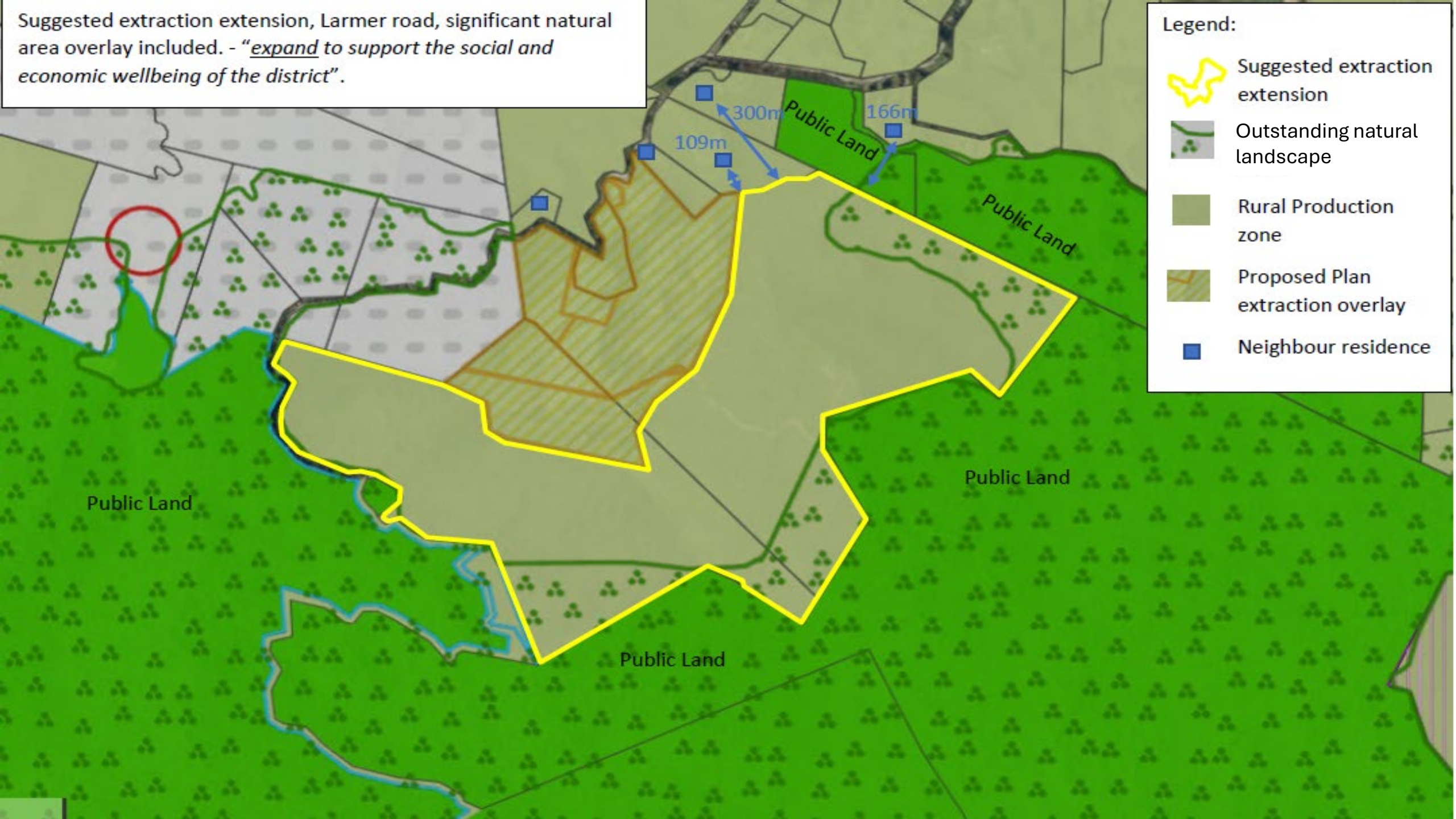
Proposed district plan – Larmer road extraction overlay, missing area



Request for expanded area

- Primary future resource
- Further application processes/litigation creates unnecessary inefficiency/costs to aggregate user (primarily FNDC and NZTA)
- Greater expansion area does not mean greater volumes extracted, no greater risk for adverse effects.
- Identified by FNDC study and recommended to expand mineral zone protection to secure resource for the future.

Suggested extraction extension, Larmer road, significant natural area overlay included. - *“expand to support the social and economic wellbeing of the district”*.



Legend:

-  Suggested extraction extension
-  Outstanding natural landscape
-  Rural Production zone
-  Proposed Plan extraction overlay
-  Neighbour residence

Summary

- Mineral Zones and Hollands recommendation is supported
- GNS mapped data shows a stark view for the future of the resource, this means all sites are significant
- Future population growth, even more scarce
- Economic benefit to all especially FNDC
- FNDC study has states that quarry/mineral areas need to be expanded to secure the resource for the future.
- Larmer road is significant over very long term

- FNDC Mineral Zones are key for resource security & District social and economic well-being

References

- Download location for GNS Science report:
<https://www.gns.cri.nz/data-and-resources/aggregate-opportunity-modelling-for-new-zealand/>
- AQA Submission Far North District Council's Long-term Strategy – April 2021
- Aggregate resources study for Far North District Council, Stage 1, Barry Larsen, Murray Stevens. 2015.
- Mineral Resource Assessment of the Northland Region of New Zealand, GNS Science report, May 2007.