Technical Memorandum

To:	James Witham	**From:**	Nigel Mather
Company:	Far North District Council	**SLR Consulting New Zealand**	
cc:		**Date:**	13 August 2025
		Project No.	810.031795

RE: Kiwi Fresh Orange Company Submission 554
Contaminated Land Technical Peer Review

1.0 Introduction

SLR Consulting New Zealand Limited (SLR) was engaged by Far North District Council (FNDC) to conduct a technical review of a Preliminary Site Investigation (PSI) included in the Kiwi Fresh Orange Company (Kiwi Fresh) submission on the Proposed Far North District Plan (FDP Submission 554).

SLR was provided with a copy of Submission 554. This technical review is limited to the following document:

- NZ Environmental, 2022. Preliminary Site Investigation, issued 21 April 2022.

The PSI has been reviewed with reference to the requirements of the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations (NESCS) (Ministry for the Environment (MfE), 2011) and the Contaminated Land Management Guideline (CLMG) No. 1 (MfE, updated 2021).

2.0 Summary of Proposed Activity

The stated purpose of the PSI is to inform a zone change application, and has specifically considered future residential land use. The PSI includes six land parcels (collectively referred to as the 'site'), identified as:

- 26 Golf Road, Kerikeri (two parcels)
- 1826 State Highway 10, Kerikeri (two land parcels)
- 1878 State Highway 10, Kerikeri (one land parcel)
- Corner of Waitotara Drive and Waipapa Road, Waipapa (one land parcel).

3.0 Review of Preliminary Site Investigation

The PSI included a review of the following information in addition to the completion of a site walkover:

- Review of selected publicly available records (property titles, FNDC and Northland Regional Council (NRC) online maps, geological information, property files).
- Review of historical aerial photographs.

The PSI identified the following key information:

- The site was originally part of a Manako sheep and beef station (prior to 1930), after which it was subdivided for horticultural use, and then later modified into dairy blocks (reported to be from 1955).
- The land currently used for the golf course was subdivided in 1977, with improvements added over time.
- None of the land parcels which make up the site are listed on the NRC Selected Land Use Register (SLUR).
- A range of historic and current Hazardous Activities and Industry List (HAIL) activities have been identified across the site, with a total of nine 'pieces of land' (as defined under the NESCS) identified. The HAIL activities identified include:
    - *Category A10 – persistent pesticide bulk storage or use including sports turfs, market gardens, orchards, glass houses, or spray sheds*.

      The PSI links this HAIL activity to the entire land parcel associated with the golf course, along with various implement and chemical sheds across other areas of the site where chemicals are currently stored, or were considered likely to have been stored historically. Also included in this category is an orchard, and fertiliser use on pastural land.
    - *Category I – any land that has been subject to the intentional or accidental release of a hazardous substance in sufficient quantity that it could present a risk to human health or the environment.*

      The PSI links this HAIL activity to various implement, storage, and dairy sheds where chemicals may have been stored and used. This HAIL category is also used to represent a number of piles of treated timber, use of treated timber in a stock yard, wood ash at a fire/burn pit, and rubbish pile.
    - *Category E1 – asbestos product manufacture or disposal including sites with buildings containing asbestos products known to be in a deteriorated condition.*

      The PSI links this HAIL activity to various current and former structures where potential asbestos containing material (ACM) was, or was suspected to be, used.

The PSI concludes that there is the potential contaminants may be present in soil across the nine pieces of land at concentrations above residential land use guideline values. The PSI also states that, pursuant to Regulation 8(4) of the NESCS, the investigation does not indicate that it is highly unlikely there will be a risk to human health if there is a change of land use to residential. The PSI therefore concludes that a Detailed Site Investigation (DSI) is warranted at the pieces of land.

4.0 Technical Review & Recommendations

The PSI has been completed in general accordance with the requirements of CLMG No.1. The PSI identified a range of current and historic activities that require further investigation to determine whether contaminants are present in soil at concentrations which present a risk to human health.

We agree in general with these conclusions. However, based on the information provided as part of the PSI, we note the following:

- The PSI includes land parcels (specifically the golf course) which are not part of the land subject to the submission on the FDP, and excludes another which is included in the submission (Part Section 13 Block X Kerikeri Survey and Lot 6 DP 6704 and Part Lot 6 DP 6704). This should be clarified by the applicant.

- There are a number of information gaps relating to potential HAIL activities conducted at the site:
    - On the basis that the site was historically part of a sheep and beef station, commentary on the potential for presence of former sheep dip activities should be incorporated.
    - The site was reported to have been subdivided for horticultural use from the sheep and beef station (presumed around 1930), prior to the site being used for general pastural and dairy activity (reported to be from 1955). It is unclear if horticultural operations were undertaken on the site, or for what period. The potential for contaminants (persistent pesticides) to be present as a result of historic horticultural use, if this was undertaken, is not discussed.
    - The potential for accumulation of cadmium in soil following repeated application of fertiliser (superphosphate) across pastural areas of the site has not been considered.
    - A former piggery is referenced in observations from the site visit, listed in one location within the report as a HAIL activity, but omitted as a 'target area' (piece of land) in the report.
- The application of HAIL categories does not seem consistent, with storage of chemicals listed as activities under both A10 and I categories.
- The assessment only addresses residential land use. There is no discussion of the intensity of residential land use, consideration of broader land use included within the submission (open space, mixed use, commercial), or general suitability of rezoning the site.

Although not specifically stated in the PSI, in our opinion the presence of HAIL activities at selected locations across the site is unlikely to have resulted in wide scale contamination in soil which would restrict rezoning of the site.

SLR recommends the applicant is requested to provide their own assessment and conclusion relating to suitability of the site for future rezoning. This should include commentary on whether any land use or activities have changed in the period since the initial preparation of the report.

The report concludes that a DSI is warranted on the pieces of land. SLR agrees with this conclusion, however we consider that further investigation is not necessary to support the currently proposed rezoning (subject to the applicants confirmation of this). Further investigation will be required to support any future activity regulated under the NESCS (subdivision, change of land use, or soil disturbance).

5.0 Limitations

This report has been prepared by SLR Consulting New Zealand Ltd (SLR) with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with Far North District Council (the Client). Information reported herein is based on the interpretation of data collected, which has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of the Client. No warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from SLR.

SLR disclaims any responsibility to the Client and others in respect of any matters outside the agreed scope of the work.

6.0 Closure

Please do not hesitate to contact the undersigned should you require any clarification.

Regards,

SLR Consulting New Zealand

Nigel Mather
Technical Discipline Manager | Environmental Services

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6 June 2025

Sarah Trinder

Senior Planner

Far North District Council

Tēnā koe Sarah,

Re: Review of 'State Highway 10, Waipapa, Kerikeri – Proposed Urban Development: Preliminary Archaeological Appraisal'

This document provides a review of the document titled *State Highway 10, Waipapa, Kerikeri – Proposed Urban Development: Preliminary Archaeological Appraisal* prepared by Charlotte Judge, Origin Archaeology. This document is presented in support of Kiwi Fresh Orange Company Limited's proposed plan change on land west of Kerikeri (Part Lot 2 DP 41113, Lot 2 DP 76850, Part Lot 2 DP 89875, Lot 1 DP 63499 and Lot 1 DP 76850). The purpose of the review is to provide advice to Far North District Council (FNDC) staff on the following matters:

- Does the supplied information reflect archaeological best practice?
- Does the reviewer support the summary of results and the recommendations?
- Is further archaeological study appropriate and what form would that take?
- Are there archaeological matters that mean that re-zoning is inappropriate?

1. Reviewer Qualifications and Experience

I hold advanced degrees in archaeology from University College London, UK (PhD) and the University of Otago (MA). I have over fifteen years archaeological experience in New Zealand and have also worked in both commercial and research archaeology in Australia and the United Kingdom. This includes experience working in Northland and the Bay of

Islands and technical expertise in remote sensing, spatial analysis, and the analysis of Māori material culture.

2. Review of State Highway 10, Waipapa, Kerikeri – Proposed Urban Development: Preliminary Archaeological Appraisal

The archaeological evidence provided in support of the proposed plan change provides an accurate summary of the archaeological and historical environment around Kerikeri.

I have conducted a review of the sources cited in the report, including historical survey plans, aerial photographs and New Zealand Archaeological Association data found that the evidence presented by Judge is accurate and correct. There are no recorded pre-1900 archaeological sites on the property and no evidence of unrecorded sites present in documentary sources.

A post-1900 historic tramway associated with the Kauri Timber Company runs through the property. The age of this feature means it is not classified as an archaeological site under the Heritage New Zealand Pouhere Taonga Act (2014). Nevertheless, I agree with Judge that the tramway has significant heritage values. Analysis of LiDAR data suggests the alignment of the tramway west of the Kiwi Fresh Orange Company Limited property was used in the formation of Puketotara Road resulting in the destruction of large sections of the site. East of the subject property, the tramway has been mostly destroyed by urban and horticultural development. On the Kiwi Fresh Orange Company Limited property, the tramway has been reused as a cattle race, but there appear to be several sections where features are at least partially intact. I agree with Judge that the most intact section of the tramway (located in the east of the property near the river) should be protected and integrated into any future development. This action would serve to mitigate the pattern of gradual loss of the site.

I agree that further archaeological sites may be identified during further archaeological assessment based on detailed design of the development.

3. Summary

The archaeological evidence presented in support of the rezoning reflects archaeological best practice. The information presented is drawn from reliable sources and appears to accurately reflect the archaeological landscape on the property.

I support the conclusions drawn in the report and do not believe there are any archaeological matters that prohibit rezoning.

It is appropriate that detailed plans are reviewed by an archaeologist during the consenting phase and any effects to pre-1900 archaeological sites identified at this time are managed through the Heritage New Zealand authority process. As a post-1900 heritage site, the tramway is not protected by the above act. Given the historical significance of the site and the cumulative destruction caused by development in the wider area around the Kiwi Fresh Orange Company Limited property it would be appropriate that the Far North District Council consider protections for the well-preserved section of the site in future consents.

Please contact me if you have any questions about the advice provided.

Noho ora mai,

Dr Andrew Brown

Director | Principal Archaeologist

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TECHNICAL MEMORANDUM

15 August 2025

HIGH LEVEL GEOTECHNICAL REVIEW TO SUPPORT S42A REPORT, PROPOSED REZONING OF 1828 AND 1878 STATE HIGHWAY 10, WAIPAPA

Far North District Council

Geologix Ref. C0627N-03-TM01

By email: jerome.wyeth@slrconsulting.com, sarah.trinder@fndc.govt.nz

INTRODUCTION

Geologix Consulting Engineers Limited (Geologix) have been engaged by Far North District Council (FNDC) as our Client in accordance with the standard short form agreement model for Consultant Engagement to provide geotechnical support to the Proposed District Plan team in regard to technical submissions on the proposed plan change.

The purpose of this technical memorandum is to provide a high level geotechnical review of the related technical submission provided to us that covers the piece of land defined as 1828 and 1878 State Highway 10, Waipapa in the FNDC Proposed District Plan (PDP). The applicable supporting documents we have been asked to provide a high level review of are detailed below.

- SUBMISSION ON NOTIFIED PROPOSAL FOR POLICY STATEMENT OR PLAN, CHANGE OR VARIATION (Submission), Clause 6 of Schedule 1, Resource Management Act 1991 (with reference to Geotechnical context only) on behalf of Kiwi Fresh Orange Company Limited.
- Land Development & Engineering (LDE), Kiwi Fresh Orange Company Limited, Geotechnical Suitability Report for District Plan Review, Kerikeri Land Development Plan Review, Ref. 21568, dated 17 June 2022.

The site is currently zoned as Rural Production. The Submission includes proposal for areas to be designated for General Residential, Mixed Use, and Natural Open Space.

In brief, it is understood from the evidence provided that the Submission is generally supported by the LDE report author from a geotechnical perspective. As a result, this memorandum has been requested to provide high-level geotechnical review to determine if the proposed plan detailed in the Submission is geotechnically feasibly by the means indicated in the supporting documentation and whether the proposal supports the policies and rules proposed for the requested altered zoning under the PDP.

LIMITATIONS

This technical memorandum has been prepared to specifically review the available information provided to us, as listed above to determine the geotechnical suitability of the proposal and any mitigation measures proposed by the supporting documentation.

The Submission provided to us details a masterplan including multiple options for proposal for the area considered by this review. Our review pertains to the geotechnical assessment with reference to the proposed district plan change, and not a multidisciplinary review of the Submission as a whole.

This technical memorandum focuses specifically upon the information provided at the time of writing. It does not detail alternative mitigation measures or alternative geotechnical recommendations which may be available to develop the site. This high level review summarises the applicability of geotechnical recommendations provided in relation to proposed buildings, infrastructure and access/ roading and the PDP.

SUMMARY AND APPLICABILITY OF AVAILABLE INFORMATION

Comment:

The scope of work undertaken by LDE included a non-intrusive walkover inspection of the site, an intrusive investigation including field tests, an engineering review of the proposed scheme plan and desktop review to prepare a geotechnical suitability assessment report to include with the Submission.

The report was prepared by an Engineering Geologist and authorised by a Chartered Professional Engineer.

The scope of the geotechnical submission in general satisfies the level of investigation required for a geotechnical review of constraints and recommendations and it is appreciated that the report is not able to provide detailed recommendations for bespoke structural proposals and complex structures. Based on the information provided, further detailed geotechnical assessment will be required to be able to provide geotechnical development recommendations for the full range of proposed development zones.

The geotechnical assessment provides statement of appraisal and/or preliminary recommendations in relation to the following areas of development:

- Residential development
- Provision for access to developments
- High level recommendations for a Spillway Design. The area proposed for the location of the spillway is generally described in the report.

The LDE report refers in Section 4: “The proposed works for the District Plan review subject area will form numerous residential lots, commercial and medical facilities, and a large hotel. Included in the proposed works is the construction of a spillway, shortcutting the Kerikeri River and Rainbow Falls to provide flood mitigation.”

The following recommendations are provided by Geologix for items mentioned in the Submission.

Recommendations:

- Residential development for structures assessed with maximum foundation loading 10kPa. It is not clear if this is limited to single storey structures or extended to larger structures with raft foundations, this may be clarified in relation to the compressible ground hazards discussed.

- The LDE report and overall Submission refers to a range of development structures beyond residential dwellings, the foundation recommendations are interpreted to be provided specifically for residential dwellings. This may be clarified and updated to provide recommendations/comment for all proposed structures.

- The LDE report and overall Submission infer that multistorey structures are proposed as part of the submission, the LDE report does not provide limitations on their foundation recommendations nor commentary/recommendations for larger structures. This may be clarified and updated to include the full intent of the Submission.

GEOLOGICAL CONTEXT

Comment:

The LDE report identifies from a review of geological mapping that the site is underlain by two lithologies including Kerikeri Volcanics described as Basalt lava, volcanic plugs and minor tuff and Alluvium described as Partly consolidated mud, sand, gravel and peat or lignite of alluvial, colluvial, lacustrine, swamp and estuarine origins. The LDE report desktop mapping indicates that the bulk of the development will be formed over the Kerikeri Volcanics Group and a small portion on the western border of the area will be situated over Alluvium. The report continues to develop an updated and more evenly distribution of Kerikeri Volcanics to Alluvium based on the investigations carried out on site, a plan drawing the interpretated geological map is provided in Appendix C of the LDE report.

The report identifies instability features and in turn, typical stable angles which is a typical process of desktop review when considering development feasibility. The Plan is separated into Region A and Region B in terms of stability and a development set back is recommended from slopes equal to or greater than 1 vertical : 2 horizontal, i.e. Region B and the Kerikeri River riverbanks. Region A and Region B are provided in Appendix C.

Recommendations:

There is limited geotechnical investigation to provide recommendations and parameters for deep foundation design. The report does not currently include deep foundations as a recommendation based on the development recommendation's focus on residential dwelling structures. Detailed design and further investigation for deep foundations can be undertaken as a normal consenting process in the future. However, it is recommended that the report for rezoning presents suitable geotechnical recommendations to cover all stratum and associated natural hazard potential..

NATURAL HAZARDS

The LDE report provides an assessment of natural hazard commensurate with a desktop appraisal, walkover survey and intrusive geotechnical field tests. The assessment identifies the potential for seismic loading, seismic induced liquefaction, compressibility of soft & organic soils, slope instability, shrink and swell of soils. Our comment and recommendations follow.

- **Seismic hazard**

  Comment:

  The geotechnical design seismic parameters and subsoil category are provided for an IL2 structure in Sections 8.2 and 8.3.

Recommendations:

No comments

- **Liquefaction assessment**

Comment:

An assessment of liquefaction induced settlements is provided in Section 8.5. No assessment for lateral displacements is carried out.

Recommendations:

Noting that a significant "free face" formed by the river is observed along the alluvium geology and north western border of the development and the remaining "free face along the north, north east and central east areas, the report should include an assessment for liquefaction induced lateral displacements. This is to determine suitability of development and rezoning of these areas and if applicable, to determine suitable offsets from the free face for future development potential of the masterplan. While this will be advanced as part of future Consent application Council's decision for the rezoning request will need to consider suitable and potentially unsuitable areas of the site and/ or areas requiring specific improvement. It is recommended that the updated results of the liquefaction assessment are interpreted into foundation recommendations according to the Ministry of Business, Innovation & Employment; "Repairing and rebuilding houses affected by the Canterbury Earthquakes".

- **Slope instability**

Comment:

The proposed Submission area is separated into Region A and Region B in terms of potential instability. Zone A represents: "characterised by flat or gently inclined land without significant relief variation (Figure 7). This region has been assessed as stable based on the flat topography and lack of evidence for slope failures." Zone B represents: "both the steep margins of the Kerikeri River as well as the steep area in the east of the subject area. Large deep-seated slope instability is not expected to occur within this region, however surficial movement of soil may occur. Steep cliffs are present within this region, forming on the interface between Regions A and B where overland flow paths intersect the boundary". The assessment is generally qualitative based on geomorphological features. The assessment also includes a development setback of 15m from any slope of 1V:2H.

Recommendations:

Update the plan in Appendix C to show the full extent of Region B as stated; "both the steep margins of the Kerikeri River as well as the steep area in the east of the subject area". Update Region B to include the 15m proposed set back or indicate it on a plan drawing. Clarify if the proposed 15m set back is proposed for any slope of 1V:2H 'and steeper'. We also recommend it is confirmed if development is proposed in these zones and to include recommendations in Section 9 of the report for development in these areas.

- **Compressibility of soft & organic soils**

Comment:

A settlement assessment has been carried out for the conditions encountered during the geotechnical field tests. The assessment includes short term and long term (50 year) settlement calculations for a footing pressure of 10kPa over a square foundation width and length of 12m representative of a typical load exerted by a residential dwelling.

Recommendations:

Provide additional analysis outside of single storey residential development to incorporate the multi storey and commercial development. The purpose being to determine if any areas of the site are unsuitable for the larger scale development proposals or require specific recommendations.

- **Shrink and swell of soils**
  Comment:

  The LDE report states that without further site-specific laboratory testing to classify the soils, it is recommended that Class H (highly reactive) is assumed.

  Recommendations:

  No comments

BUILDING DEVELOPMENT
Comment:

The LDE report assessments focus upon future residential building and a spillway. The LDE report and Submission however refer to mixed use developments and make further reference to low rise apartments, residential lots, commercial and medical facilities, new bridge crossings, and a large hotel.

Recommendations:

It is therefore expected that the Submission options would be feasible with further geotechnical assessment and recommendations. However it is expected the report should provide concept recommendations and/ or any limitations the site has for the varying scales of development.

INFRASTRUCTURE
Comment:

The LDE report is generally silent upon infrastructure requirements to enable the Submission. It is expected that based upon the rural nature of the proposal that the development will be serviced by on-site wastewater treatment and on site stormwater management such as ponds and large scale discharge devices including the Spillway discussed. The Spillway is described to be purposed to drain the steep eastern portion of the site and mitigate flooding by shortcutting the Kerikeri River and Rainbow Falls, however, no comment is made on the infrastructure adjoining the spillway.

Neither of these are detailed in the suitability assessment and it is expected that infrastructure will be subject to some geotechnical influences such as suitable areas for wastewater disposal, varying soil loading categories based upon the differing geology types (we note a single soil type has been applied in Section 9) and any zones not suitable for wastewater disposal, such as the areas subject to natural hazards.

Recommendations:

It is recommended that as a minimum that the submission provides an assessment of areas which are conceptually feasible for infrastructure siting and if necessary, any mitigation measures expected. This would meet objectives of the PDP to appropriately manage the development of infrastructure in natural hazard areas.

ACCESS/ ROADING

Comment:

Similarly, a new network of access roads is proposed through the site. The Structure Plan included in the Submission describes four transport options each with multiple new and upgrade bridge options. The LDE report does not provide an assessment of the suitability of the proposed options or general recommendations for road construction. It is noted from the LDE report that there are significant settlements associated with 10kPa loading at specific locations across the site. Where roads are required to be raised above flood water levels or across rapid changes in ground levels, fills may represent significant loading on the ground and therefore also induce significant settlements.

Recommendations:

Provide an assessment for the feasibility requirements for roads and bridge structures with recommendations for further geotechnical investigations and assessment.

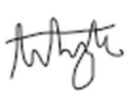
CONCLUSIONS

Based on a high level review of the LDE report referenced above and enclosed evidence a summary of recommendations/comments are as follows:

- The site is currently zoned as Rural Production. The Submission includes areas for General Residential, Mixed Use, and Natural Open Space.
- The LDE report has a specific focus on residential development and the proposed Spillway. Provide comment/limitations for structures with foundation loading exceeding or differing in complexity to those assessed in the report should be provided to address the full range of foundation loads associated with the proposed development potential contained in the Submission.
- Infrastructure has not been comprehensively considered from a geotechnical perspective and should be further assessed.
- Access roading is expected to be extensive over the site, trending multiple different geological conditions, terrain and geomorphological features. It is recommended that this including bridge locations should be further analysed to ensure that the concepts are feasible.
- A preliminary liquefaction induced lateral spread assessment should be carried out across the existing site investigations to inform concept and feasible development recommendations.

Outside of the above recommended feasibility items the proposal can be suitably advanced at the consenting stage by normal geotechnical investigation, analysis and reporting processes.

Prepared by



Andre Whyte,
Principal Geotechnical Engineer
CPEng, CMEngNZ,
GEOLOGIX CONSULTING ENGINEERS LTD

Reviewed/Approved by

Edward Collings,
Director
CPEng, CMEngNZ, CEnvP, MPhys (Hons)

Memorandum

To Sarah Trinder
Senior Policy Planner - District Plan, FNDC

From Melean Absolum
Landscape Architect, MALtd

Date 1 July 2025

Dear Sarah,

SUBMISSION 554 - KIWI FRESH ORANGE COMPANY LTD

INTRODUCTION

This memorandum records my advice prepared on behalf of Far North District Council (FNDC) in response to Submission 554 from Kiwi Fresh Orange Company Ltd (KFO) on the Proposed District Plan (PDP) requesting a zone change for approximately 197 ha of land land between Kerikeri and Waipapa townships, to create a precinct and enable urban development..

The Submission provided a Structure Plan supported by a series of technical assessments, along with proposed provisions and a s32A analysis. Evidence has also been more recently provided to support the request.

I am familiar with the surrounds of the property, and undertook a site visit on the 12 June 2025. In preparing this memo I have reviewed the following documents:

- Submission 554, including:
  - Appendix A – Submission Area;
  - Appendix C – Submission on the Provisions of the PDP;
  - Appendix D – Proposed Brownlie Land Precinct provisions;
  - Structure Plan;
  - Landscape, Rural Amenity and Natural Character Assessment (Littoralis);
  - High Level Ecological Constraints Analysis (Bioresearches);
- Evidence of Messrs S Brownlie, D Corbett, G Neill and Ms T Barnett.
- Proposed District Plan, as notified.

I note that the majority of the technical assessments provided with the submission, were prepared in 2022. In some cases, such as the ecological assessment, these have been updated in evidence provided earlier this year.

There is inevitably a degree of overlap between this landscape review and the urban design review being undertaken by Ms J Rennie on behalf of FNDC.

LANDSCAPE, RURAL AMENITY AND NATURAL CHARACTER ASSESSMENT

This technical assessment, prepared by Littoralis, is well illustrated and adopts an appropriate assessment process. It provides a description of the precinct area, including its biophysical attributes; the character of the surrounding areas, including the open space network. It goes on to summarise the landscape opportunities and constraints within the precinct and how these have fed into the preparation of the Structure Plan.

The report states that:[1]

> *"... the key landscape, urban amenity and habitat-driven imperatives that underpin the arrangement of the Structure Plan are as follows:*
> - *A distinctive character and identity that infuses the wider context of the Site as a result of its soils, topography, catchment pattern and climate. This combination of geophysical qualities imbues Kerikeri with a rich history of growing food and, in the past century, a reputation for supporting subtropical plants for both fruit crop and amenity purposes.* ***That established character can be distilled and expanded through future urban areas to give it further strength.***
> - *Much of the Site is relatively featureless and virtually flat, so that large portion of the land is unconstrained within the scope of this assessment.*
> - *Those parts which are not almost flat occupy steep flanks dropping to riparian areas, where care for habitat values, associated visual amenity and providing for off-road access can offer heightened value to development on the "easy" part of the land and surrounding areas beyond the Site.*
> - *Watercourses lining two edges of the Site as part of a clearly expressed catchment system that converges on the margin of the land. The combination of the Kerikeri River corridor and the Puketotara Stream, along with their indigenous riparian vegetation associations, create a frame to approximately 2/3 of the perimeter of the Site.*
> - *A related network of existing Open Space that incorporates "destination" reserves as well as narrower access and waterside management strips.*
> - *Frontage to SH10 and very close proximity to Kerikeri offers scope for unification of these currently separated urban hubs and residential areas.*
> - *A significant flooding limitation across a large section of the land leads to a solution that opens considerable potential amenity and character opportunity through the development of a corridor to channel those floodwaters, as will be described more fully in Item 5.1.* My emphasis

The report goes on to describe how the character findings of the assessment report have fed into the zoning pattern being put forward in the Structure Plan. The report provides[2] seven Landscape and Urban Design Principles for the Structure Plan. They are:

> 1. *Development is to provide a high level of living amenity that reflects and is respectful to the form and character of Kerikeri.*

[1] *Section D Landscape Opportunities and Constraints, Landscape, Rural Amenity and Natural Character Assessment report by Littoralis, dated October 2022, page 19*

[2] *Section E Spatial Plan Approach, ibid, page 20*

2. *Achieve a compact and efficient urban form that responds to the physical characteristic and constraints of the site.*
3. *Provide a mix of residential living opportunities supported by an appropriate extent and mix of non-residential activity such as commercial and retail activities.*
4. *Use the open space zones as a framework that ties the development together. The use of the open space and natural open space zone is to be multifaceted (i.e., stormwater, wildlife, transport connections, amenity).*
5. *Promote non-vehicular modes of transport.*
6. *Minimise barriers between public and private spaces.*
7. *Support higher density development in close proximity to amenity, transport connections and access to open space.*

Finally, the report includes an assessment of effects on both visual amenity and the landscape that would arise from development of the precinct in line with the landscape and urban design principles identified in the Structure Plan. Importantly, it does not assess potential adverse effects from development enabled by the provisions, which I assume were prepared later.

In my opinion, the report provides a good description of the landscape attributes and values of the precinct area and provides guidance in how these can be protected and incorporated into the future development of the precinct. However, the report includes two matters worthy of further examination. Firstly, it states:[3]

> *"Whilst the overall impression of the Sports Hub will probably remain as being predominantly open and grassed, it will take on a far more urban character that will relate as much to the built fabric of Waipapa commercial area as to nearby farmland. In effect, the development of the Sports Hub will shift the perceived urban margin of Waipapa into close physical proximity with the Site.*
> ...
> *Commercial activities within the Mixed Use zone would stand in contrast with adjacent farmland would, effectively, be perceived as sliding the gateway to Waipapa's existing commercial signature to the south by almost 1km."*

The first phase of development of the Sports Hub is now complete, with a handful of sports fields and a small toilet block having been constructed alongside a large parking area, next to SH10. In my view the facility has not taken on a "far more urban character" as anticipated by Mr Farrow. The combination of the well planted carpark and turfed playing fields, all surrounded by large established trees creates and a pocket of green which contrasts strongly with the busy highway and industrial land-uses on the other side of the road.

As a result, I do not agree that the "urban margin of Waipapa" has moved as a result of the Sports Hub development. Indeed, the edge of Waipapa, as experienced when approaching from the south, remains at the bridge over the Waipekakoura/Kerikeri River. In my view, the construction of the Sports Hub cannot be seen as justification for extending the urban

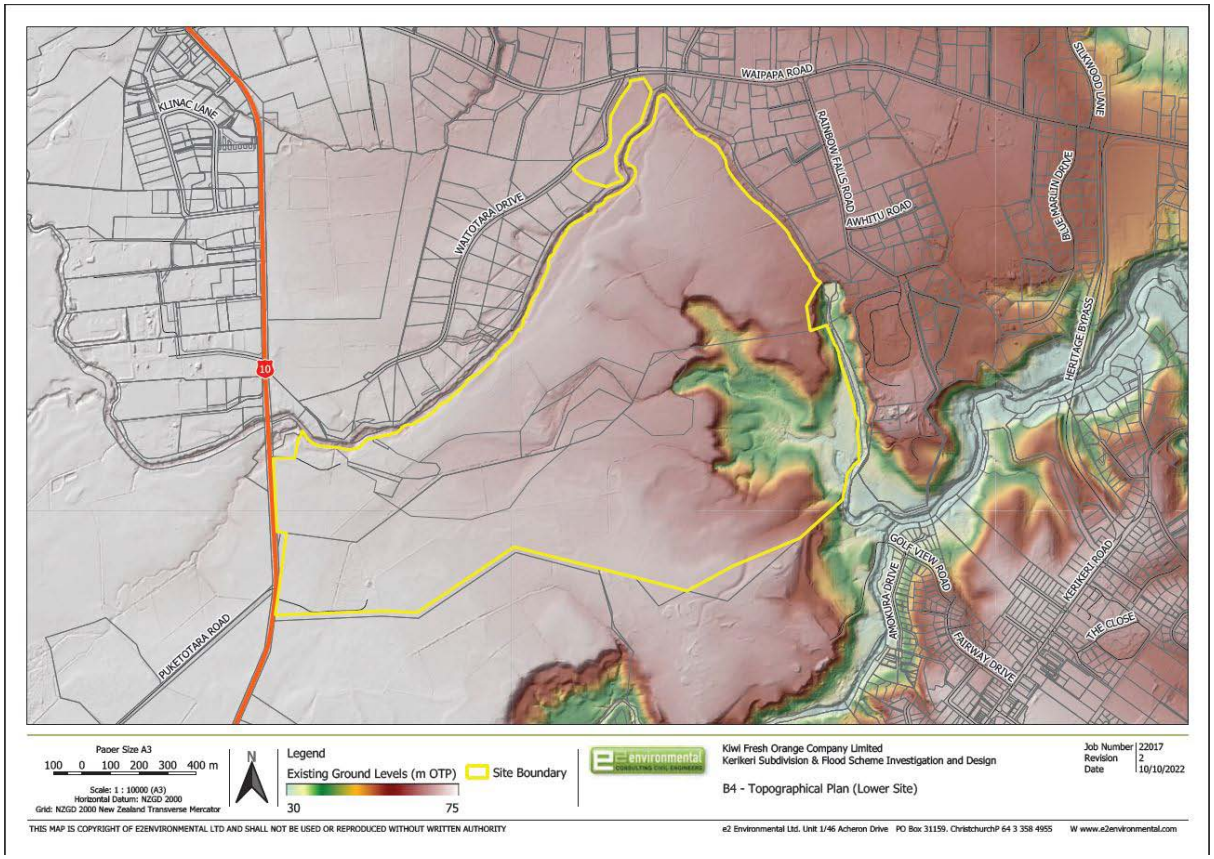
[3] *Section F Effects Assessment, Landscape, Rural Amenity and Natural Character Assessment report by Littoralis, dated October 2022, page 24*

boundary to included the Mixed Use Zoning of land adjoining SH10 in the precinct. Additionally, the identification of the farm to the south of the precinct as having future urban potential, means that urban development could continue to spread south down SH10, with no strong landscape boundary until the bridge over the Puketotara Stream close to Waimate North Road. In my view the bridge over the Waipekakoura/ Kerikeri River should remain the urban boundary of Wapapa,.

Secondly the report's conclusions go on to state:[4]

> *"The Site's spatial relationship with Kerikeri to one side and Waipapa to the other, combined with virtually flat topography, suggests that it is optimally positioned to accommodate future growth."*

While I agree that much of the precinct is virtually flat, it is critical to remember that not all of it is and neither is the immediately adjacent land between the precinct and the centre of Kerikeri. There is a 30m plus drop[5] from the flat area of the precinct to the bridge over the Puketotara Stream on Golf View Road and a 30m climb from the bridge up to the town centre. This important characteristic is well illustrated in the Topographical Plan in Appendix B of the Flood Scheme Investigation and Proof-of-Concept Design report[6] shown below.



[4] *Section G Conclusions, Landscape, Rural Amenity and Natural Character Assessment report by Littoralis, dated October 2022, page 28*

[5] *Calculated from contour information on NRC Natural Hazards on-line maps data.*

[6] *Flood Scheme Investigation and Proof-of-Concept Design report by E2 Environmental, dated October 22.*

In my opinion, the potential impediment that this sizeable landscape feature poses for creating a well connected residential development has not been fully explored in the landscape assessment report.

I also note that the report does not provide any assessment of whether the proposed precinct provisions provided will achieve the sort of development that is both recommended and assessed in the report. Before considering that question, I shall briefly point out how the landscape assessment work has been incorporated into the Structure Plan.

THE STRUCTURE PLAN

The Structure Plan provided with the submission includes a series of aspirations for the precinct area under the heading Vision and Objectives. This includes the seven Landscape and Urban Design Principles[7] cited above.

The Structure Plan goes on to describe the spatial context of the precinct area under a series of headings, including Landscape.[8] Here the Opportunities and Constraints cited above are reiterated, along with some of the conclusions already referred to.

Despite these and a number of other positive components to the Structure Plan, I think that, like the landscape assessment report, it underplays the significance of the Puketotara Stream valley and the impediment that this is to creating a truly connected residential area.

I note that the Structure Plan states:[9]

> *"As shown on the constraint's maps, the areas of land that are over 12% and 20% gradient have been mapped to assist with the proposed zoning of the land.*
>
> *The land subject to the steep land has been included within the live zoning and the development constraint will be assessed at the time of subdivision."*

The identification of the steep land within the site has been recognised in the Structure Plan, and zoned accordingly, with either Natural Open Space or Large Lot Residential zones proposed. The potential effect of the topography beyond the site on how the precinct will function appears to have been either overlooked or its consideration has been postponed until the live zoning is in place.

Similarly, the Structure Plan goes on to state:[10]

> *"The Site is centrally located between Kerikeri and Waipapa providing the opportunity to connect these two areas. 800m radius pedestrian shed circles can be overlaid to demonstrate that a viable walking and cycle network can be*

[7] *s3 Vision and Objectives, Landscape and Urban Design, - Brownlie Land Structure Plan, by Pacific Environments and The Planning Collective, dated October 2022, page 15*
[8] *s4 Spatial Context, Landscape Context, - ibid, page 24*
[9] *s4 Spatial Context, Topographical Characteristics, - Brownlie Land Structure Plan, by Pacific Environments and The Planning Collective, dated October 2022, page 28*
[10] *s6 Constraints and Opportunities, Location, ibid, page 48*

> *incorporated, to achieve non-vehicular access to both townships from the area, and from Kerikeri to Waipapa.*
>
> *This provides opportunities for a residential population to be within a walkable distance of the larger employment catchments of Waipapa and Kerikeri and the proposed and consented FNDC Sports Hub."*

Unfortunately, the 800m radius pedestrian shed circles are drawn horizontally and take no account of the topography, particularly to the south-east of the precinct where the 30m deep valley must be negotiated to reach the centre of Kerikeri. It seems possible that the precinct could become another car reliant suburb, with pedestrian and cycle connectivity, to Kerikeri at least, severely hampered by the Puketotara Stream valley.

THE PROPOSED PRECINCT PROVISIONS

The precinct provisions provide an overview of the purpose of the area, including emphasising the importance of staging development to suit the infrastructure available at that time. Parts 2 and 3 of the PDP will apply to the precinct, along with specific provisions that require the preparation of a Comprehensive Development Plan.

Importantly, in my opinion, there is no mention of the Structure Plan in the provisions. This means that if all the positive aspirations put forward in the Structure Plan are to come to fruition, the proposed precinct provisions themselves must ensure they are achieved.

Precinct Plans

It is not clear from the submission what plans are proposed to be attached/included in the precinct provisions. It seems likely that they will either include Figures 1, and 3 in the s32A report in the submission, which show the zoning framework and flood hazard management overlay, although they omit a number of the details found in the Structure Plan Figure 10, or perhaps this latter plan is intended to be part of the provisions.

Policy BL-P5

Of relevance to landscape matters is Policy BL-P5 which reads:

> *"Provide open spaces to protect natural site features in the amphitheatre which includes native vegetation, stream, wetland, and waterfall areas."*

This policy is much too narrow in its focus. As has been pointed out in the Littoralis and Bioresearches assessment reports, there are important areas of vegetation, streams and wetlands that lie beyond the amphitheatre area of the precinct. This includes the whole of the northern boundary of the precinct where existing riparian vegetation provides the opportunity for public access to attractive open spaces, as illustrated in the Structure Plan. I also note that "the amphitheatre" is not defined, which could lead to confusion in the future.

Rule BL-R3

BL-R3 concerns the Comprehensive Development Plan. It is proposed to be dealt with as a Restricted Discretionary Activity where:

"As part of the first resource consent application for any subdivision, use or development within the Precinct, a Comprehensive Development Plan shall be submitted for approval containing the following information:

1. *The layout, location and type of proposed lots,.*
2. *Road access points.*
3. *Internal roads, private access ways, pedestrian and cycle connections.*
4. *Detail of infrastructure servicing requirements, including staging triggers for delivery of development.*
5. *A comprehensive stormwater management plan.*
6. *Detail of proposed reserves including reserves to vest.*
7. *Detail of natural hazard mitigation measures including provision for legally securing the land required for flood hazard mitigation and detail and plans for the physical construction of the floodway.*

Note this detail may be supplied and approved as a separate component to the CDP ahead of all other development activity.

8. *Detail of the location of a Neighbourhood Centre to provide retail premises to support the residential neighbourhood.*

The Comprehensive Development Plan may be implemented in stages."

In my view the rule should make it clear that the CDP is required for the whole precinct, even though it may be implemented in stages.

I also note that there is no mention of the two proposed MHU zones in this standard, although the Neighbourhood Centre is mentioned. This appears to be an oversight.

Rule BL-R3 Matters of Discretion

The nine matters of discretion included in this rule generally provide a comprehensive suite of matters to be considered. However, I think that item d, shown below, could be improved with the specific mention of Kerikeri township. This is because of the potential connectivity problems already discussed.

"d. The extent to which pedestrian and cycle connections utilise and enhance access to Rainbow Falls – Waianiwaniwa, the Kerikeri river, Kerikeri town centre, the Sports Hub and the wider area."

I also note that matter i reads as follows:

"i. The appropriateness of activities and buildings proposed in the Mixed Use zone, and the layout of sites to provide a dual frontage to State Highway 10 and the internal road network."

There is no mention of the second MHU area on the Structure Plan which does not front SH10. This, too appears to be an oversight.

In his conclusions Mr Farrow noted:[11]

> *"Conserving riparian corridors and related vegetation patterns has been an anchoring requirement of the Structure Plan from its outset and informs a series of identified cross-connections to draw those natural themes into the body of the Site."*

To ensure that the vision of the Structure Plan is supported by the provisions there should be a matter of discretion dealing with the integration of the riparian corridors into the development, in my opinion.

As highlighted in the excerpt from the Littoralis report on page 2 of this memo, an opportunity exists to build on the subtropical character of much of Kerikeri's urban area through the development area. This is another important aspect of the Structure Plan work that has failed to find its way into the precinct provisions.

CONCLUSIONS

The Structure Plan and the supporting technical reports that I have reviewed, generally provide a comprehensive and positive foundation for the development of the precinct. There seems, however, to be a disconnect between the aspirations and objectives of the Structure Plan and the proposed precinct provisions. This is not helped by the uncertainty around what Precinct Plans are proposed to used. The difficulty created by the topography of the Puketotara Stream valley also remains to be resolved, to achieve the level of connectivity sought.

Melean Absolum
Dip LA FNZILA
1 July 2025

[11] *Section G Conclusions, Landscape, Rural Amenity and Natural Character Assessment report by Littoralis, dated October 2022, page 28*

Memorandum

To Jerome Wyeth
Technical Director - Planning, SLR

From Melean Absolum
Landscape Architect, MALtd

Date 6 September 2025

Dear Jerome,

SUBMISSION 554 - KIWI FRESH ORANGE COMPANY LTD

INTRODUCTION

This memorandum records my response to the evidence and revised provisions provided by Ms Burnette O'Connor on behalf of the above submitter, dated 30 June 2025. This material was provided after I had prepared my earlier memo (dated 1 July 2025) in response to the submission, attachments and evidence of Messrs S Brownlie, D Corbett, G Neill and Ms T Barnett..

In my earlier memo I highlighted two concerns arising from the Landscape, Rural Amenity and Natural Character Assessment report. Firstly, I do not believe the construction of the Sports Hub can be seen as justification for extending the urban boundary of Waipapa to include the Mixed Use Zoning of land adjoining SH10 in the precinct. In my view the bridge over the Waipekakoura/ Kerikeri River should remain the urban boundary of Waipapa. This concern remains.

Secondly, I disagreed with one of the conclusions of the landscape assessment report which states:

> *"The Site's spatial relationship with Kerikeri to one side and Waipapa to the other, combined with virtually flat topography, suggests that it is optimally positioned to accommodate future growth."*

I pointed out that the steep and difficult topography between the flat part of the precinct and Kerikeri town centre creates significant challenges in terms of creating optimal connectivity between the two areas. This concern also remains.

Additionally, I made five comments on the draft provisions provided with the submission. As these have now been updated, I shall firstly comment on any response to the points I raised and secondly provide other relevant commentary within my area of expertise.

PRECINCT PROVISIONS AND MY EARLIER MEMO

In my earlier memo I highlighted the following five points:

- Policy BL-P5 was too narrow in its focus, referring only to the amphitheatre;
- Rule BL-R3 contained no reference to the MUZ along the SH10 frontage of the precinct in the list of matters to be included in the Comprehensive Development Plan (CDP) for an restricted discretionary application (RDA);
- Rule BL-R3 Matters of Discretion d - I suggested adding reference to Kerikeri town centre, because of my concerns around potential connectivity difficulties;
- I suggested the addition of a matter of discretion dealing with the integration of the riparian corridors into the development, in response to the landscape assessment findings; and
- I pointed out the absence of reference to the opportunity to build on the subtropical character of much of Kerikeri's urban area through the development area, again in response to the findings of the landscape assessment report.

Firstly, I note that the precinct has now been named Te Pāe Waiōra Precinct and so the proposed provision's abbreviation has also changed to TPW[1].

Policy BL-P5

The number of proposed policies has now increased from 5 to 11. The corresponding policy is TPW-P8 which states:

> *"Provide public open spaces in the vicinity of natural site features as shown on the Precinct Plan to ensure the ongoing protection of native vegetation, stream, wetland, and waterfall areas."*

This satisfies my earlier concern.

Rule BL-R3

To be considered as an RDA, a CDP must now include the following:

> *10. Indicative layout for development within the Mixed Use zone."*

This satisfies my earlier concern.

Rule BL-R3 Matters of Discretion

This matter of discretion has not been changed and I remain concerned that the way in which development of the precinct, through the CDP, provides the levels of connectivity to Kerikeri town centre that the submission and Structure Plan have foretold. I remain of the opinion that this matter should read:

> *"d. The extent to which pedestrian and cycle connections utilise and enhance access to Rainbow Falls – Waianiwaniwa, the Kerikeri river, <u>Kerikeri town centre</u>, the Sports Hub and the wider area."*

[1] *This is not the case with BL-R4 which has retained its earlier initials*.

Integration of the Riparian Corridors

This matter of discretion has not been added to the proposed provisions. I recommend the following:

> *"j. The extent to which existing riparian corridors and associated vegetation are integrated into the development."*

Subtropical Character of Kerikeri's Urban Area

My earlier observation that the landscape assessment report's comment that Kerikeri's subtropical character could be expanded through the precinct has not been picked up in the provisions. This is not of great concern to me.

Melean Absolum
Dip LA FNZILA
6 September 2025

Far North District Council

1828 & 1878 SH10, Kerikeri-Waipapa

Plan Change Three Waters Infrastructure Peer Review

05 September 2025

1-14713.00

1828 & 1878 SH10, Kerikeri-Waipapa Plan Change Three Waters Infrastructure Peer Review

Far North District Council (FNDC)

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REV	DATE	DETAILS
A	01 September 2025	Issued for Review
0	05 September 2025	Final Report Issued

	NAME	DATE	SIGNATURE
Prepared by:	Kamanth Ramlal	05 September 2025	
Reviewed by:	Jean Botes	05 September 2025	
Approved by:	Richard Pearson	05 September 2025	

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INTRODUCTION

This peer review has been prepared at the request of Far North District Council (FNDC) to provide an independent assessment of infrastructure servicing feasibility for a rezoning submission at 1828 & 1878 SH10, Kerikeri-Waipapa (the “site”).

The submission, supported by evidence from Johannes Petrus Ehlers (16 June 2025) on behalf of Kiwi Fresh Orange Company Limited, seeks to rezone its land between Kerikeri and Waipapa (currently zoned as Rural Production) to a mix of general residential, mixed urban, and natural open space zones in the Proposed District Plan. The indicative development yield is approximately 1500 to 2000 dwellings (~30% retirement housing and ~70% households), 1 hectare retail, 1 hectare office/commercial and 3 hectares of other business, representing a significant intensification compared to the current zoning.

This review is framed against the requirements of the Independent Hearings Panel Final Minute 14 (2 December 2024), which sets the rezoning criteria for infrastructure (three waters) servicing.

Supporting documents reviewed include:

- FNDC, District Plan Changes – Infrastructure High Level Review (February 2024)
- FNDC, Engineering Standards for Land Development (May 2023)
- Beca, Keri-Waipapa Spatial Plan and Hybrid D-E 3 Waters Technical Memorandum (February 2025)
- Beca, Keri-Waipapa 3 Waters Capacity & Modelling Assessment (October 2024)
- Applicant evidence (Ehlers, June 2025)
- Infir, 1828 & 1878 SH10, Waipapa Servicing Report (Ehlers, October 2022)

The scope covers:

- **Water supply** feasibility and connection options.
- **Wastewater** servicing capacity and alignment with FNDC infrastructure plans.
- **Stormwater** management approach, neutrality, and downstream effects.
- **General servicing risks** including staging, affected party approvals, and integration with roading or landform constraints.

Out of Scope:

This peer review does not involve independent network modelling or hydraulic capacity testing, consistent with the engagement assumptions. Transport, geotechnical, detailed design, or property/legal matters are excluded unless they materially influence the three waters feasibility.

1 GENERAL

1.1 SITE AND PROPOSAL

The subject site is located at 1828 & 1878 SH10, Kerikeri-Waipapa and is approximately 200 hectares in size. The existing uses for the site are not provided in the documentation; however, it is noted that large open spaces exist as per aerial views (FNDC GIS) and are assumed to be as per the current District Plan zoned for Rural Production. There are two main access points identified for the site, with two alternative accesses as well and they are as follows:-

- Access A: Western access at State Highway 10 / Puketotara Road
- Access B: Eastern access at Aranga Road (alternative to Access C)
- Access C: Eastern access at Golf View Road (alternative to Access B)
- Access D: Northern access at Waitotara Drive

The rezoning request seeks to change the zoning from Rural Production to a live urban zoning of its land comprising a mix of general residential, mixed urban and natural open spaces.

The projected development capacity ranges from roughly 1,500 to 2,000 homes, with about 30% designated for retirement living and the remaining 70% for general households. In addition, the plan includes 1 hectare for retail use, 1 hectare for office or commercial activities, and 3 hectares allocated to other types of businesses. This represents a substantial increase in density compared to the current zoning.

1.2 APPLICANT'S SERVICING STATEMENTS

Key claims from the planning evidence

- The 3-waters assessment prepared by Beca demonstrates that the public water supply and wastewater systems can be upgraded to support residential and commercial development on the Site.
- Timing issues for the wastewater upgrades can be overcome by providing an interim on-site wastewater treatment and land-disposal system.
- The upgrades to the water supply system will be required regardless of the location of development in Kerikeri.
- Stormwater management on the subject Site will consist of the standard measures to control stormwater quality and peak discharge rates, once the floodway consisting of a 100m wide channel and minor reshaping of the existing landscape is in place.

Observation:

The Infīr Servicing Report presents a structured approach to infrastructure servicing and demonstrates a clear understanding of both current network limitations and the upgrades planned by Council and other stakeholders. It recognises the importance of staging development, particularly for wastewater, where interim on-site treatment and disposal are proposed until public network upgrades are available. The report highlights the need for ongoing technical assessment, such as detailed modelling and capacity confirmation, at later stages, which is appropriate for this phase of planning. There is also an emphasis on collaboration with the Council to ensure that future infrastructure improvements are coordinated with the development's rollout.

2 THREE WATERS SERVICING

Assessment Framework – Minute 14

Minute 14 of the Independent Hearings Panel (Final, 2 December 2024) sets the framework for assessing rezoning requests in the Proposed FNDC District Plan. It requires applicants to demonstrate that the subdivision and development potential enabled by rezoning can be supported by **adequate three waters servicing**.

Specifically, evidence should address:

1. **Proposed connections**
   Where and how the site would connect to existing water, wastewater, and stormwater infrastructure, demonstrating viability.
2. **Engagement and assumptions**
   Outcomes of discussions with FNDC infrastructure staff, and any assumptions about servicing, sequencing, or capacity, including the impact of other plan-enabled development.
3. **On-site Provision**
   Any infrastructure required on-site to make development feasible, such as storage, pumping, or attenuation devices.
4. **Substantive Demand**
   Where rezoning creates material demand on bulk infrastructure, applicants are expected to engage proactively with FNDC's infrastructure team prior to hearings.

Minute 14 is explicit that detailed design is not expected at the rezoning stage. Instead, the requirement is for a credible, concept-level servicing assessment that gives Council and the Panel confidence that development enabled by rezoning can be adequately serviced.

In practice, this means applicants must "tell the servicing story": identify the connections, acknowledge the demand that rezoning will generate, summarise what has been discussed with infrastructure staff, and show how any constraints or on-site provisions could be managed.

2.1 WATER SUPPLY

The applicant's Infīr Servicing Report provides an overview of the proposed development's water servicing strategy. It identifies that the existing public water supply is sourced 70% from the Kerikeri Irrigation Company (KIC) and 30% from the fully allocated Puketotara Stream. The report acknowledges that the current system is operating under capacity constraints and will require upgrades irrespective of future growth locations. It identified that while additional supply may be available from KIC-owned dams, and also noted that groundwater resources are limited. The proposed development is shown to have the ability to connect to the trunk main at the northern entrance on Waipapa Road, which is consistent with the broader network upgrades outlined in the Beca Capacity & Modelling Assessment.

Due to the constraints highlighted above, the Infīr Servicing Report outlines an option involving the construction of a raw water truck main from KIC to an on-site water treatment plant, with provision for future integration into the municipal network, offering a strategic approach of staged development. It recommends allocating a nominal 1-hectare area for water treatment and storage, with treatment systems capable of managing algal blooms from KIC's dams to comply with potable water quality requirements. The submission appropriately emphasises the need for resilience and flexibility in the water supply approach, including the ability to switch between sources and also address water quality issues.

The Kerikeri-Waipapa 3 Waters Capacity & Modelling report and the evidence provided are aligned that water supply for the proposed development is feasible, but will require significant upgrades to the existing network to support full growth. It should be noted that further testing is needed to confirm both the quality and reliability of the water supply, ensuring that the development will be properly serviced. The site's proximity to key assets is an advantage, yet capacity constraints mean that detailed modelling and coordinated staging with Council are essential at subdivision to ensure reliable and resilient water servicing.

Finding

Water servicing for the proposed development is feasible in principle, but subject to key risks, given the site's proximity to major supply assets and the Council's ongoing investment in new water sources and infrastructure upgrades. However, the existing public water supply network is operating near capacity, and significant upgrades to treatment, conveyance, and storage will be necessary to support the full development yield. Relying solely on the northern dam is risky due to algal bloom issues and other engineering solutions, such as storage or alternate supplies, could be considered as mitigation measures.

These network constraints do not prevent rezoning at this stage, but must be addressed at the subdivision phase through detailed hydraulic modelling and the implementation of staging conditions in collaboration with FNDC. This approach will ensure that water supply remains reliable and resilient as growth proceeds, and that infrastructure delivery is aligned with development timing and the Council's upgrade programme

2.2 WASTEWATER

The applicant's servicing strategy outlines two primary wastewater management options for the proposed development. The first involves integration with the public Kerikeri/Waipapa wastewater system, which will require extensions to the existing municipal infrastructure. However, the report acknowledges that planning and implementation of this option will take time. As an interim solution, the applicant proposes a standalone on-site treatment and land disposal system capable of servicing up to 840 dwellings and 5 hectares of commercial development. This system includes a reserve area for future expansion and relies on land-based disposal. The report identifies a trigger point ("Time 4" or Phase 4 development) beyond which connection to the public system becomes necessary, ensuring a staged approach to servicing.

The submission demonstrates a flexible and scalable approach to wastewater servicing. The proposed land disposal field requires 22 hectares, with an additional 11 hectares reserved, based on hydraulic loading. While the site's predominantly clay soils present constraints on application methods and rates, the report indicates that a discharge consent for land disposal is achievable due to the availability of suitable land. Importantly, the strategy allows for a future transition from on-site to public system integration, supporting long-term resilience. The report concludes that there are no fatal flaws in servicing the site, provided the staged implementation and eventual public system connection are followed.

The Kerikeri-Waipapa 3 Waters Capacity & Modelling report and the evidence provided are aligned in terms of a staged approach to wastewater servicing. Beginning with interim on-site treatment and land disposal for early phases, and transitioning to public network connection as Council upgrades are delivered. This alignment reflects a shared understanding that while initial development can proceed with on-site solutions, long-term servicing viability depends on careful planning, monitoring, and coordination with FNDC to ensure capacity and compliance as the area grows.

Finding

Wastewater servicing for the proposed development is feasible, utilising a staged approach that begins with interim on-site treatment and land disposal, and transitions to public network connection as Council upgrades are delivered. To enable a successful transition, the developer must provide clear and enforceable commitments for the decommissioning, remediation, and rehabilitation of the on-site system. These obligations should be secured through legal or financial instruments (e.g., consent conditions, agreements, or bonds), to ensure that Council is not left with unfunded liabilities. A transition management plan, including costed remediation works and funding mechanisms, should be required at the subdivision stage to provide certainty over time.

While the staged approach offers flexibility for early development, it may result in higher overall costs and could require Council to prioritise infrastructure upgrades for this development ahead of broader network or community needs. To mitigate this, developer contributions should be proportional to both interim and long-term infrastructure, consistent with FNDC's "growth pays for growth" policy and national best practice. Council investment should be aligned with the wider network upgrade programme, and developer contributions must be secured for both interim and permanent solutions.

Consentability of land or water discharge will depend on compliance with evolving national standards. The proposed national wastewater environmental performance standard (expected October 2025) sets clear contaminant limits, including $cBOD_5$, TSS, total nitrogen, total phosphorus, ammonia, E. coli, and enterococci, and monitoring requirements tailored to the sensitivity of the receiving environment (such as lakes, rivers, estuaries, etc.). Any future discharge to water must meet these limits, and robust evidence will be needed to demonstrate compliance. For land-based disposal, regional rules and the Resource Management Act 1991 still apply, but the national standard provides a benchmark for best practice and what may be expected in future consents. There remains some uncertainty until the final standards are issued, so adaptive management and ongoing engagement with FNDC and the regulator are recommended.

The suitability of land disposal is influenced by clay soil conditions, which may limit application rates and require robust design and monitoring. All future consents and statutory requirements, including the Resource Management Act, National Policy Statement for Freshwater Management, Te Mana o te Wai, and the Northland Regional Plan, must be addressed at subdivision and consenting stages, alongside development contributions and iwi engagement as required

In summary, wastewater servicing for the proposed development is feasible in principle, subject to robust transition planning, proportional developer funding, and compliance with evolving national and regional standards. The approach allows for flexibility and early growth, but requires clear commitments from the developer and adaptive management to ensure long-term viability and environmental protection.

2.3 STORMWATER

The applicant's Infīr Servicing Report submission outlines a stormwater management strategy for the proposed development, with a formalised 100m-wide floodway identified by E2 Environmental as the preferred solution for managing catchment-wide flood risk. The report did not form part of the evidence submitted but was referenced in the Infīr Servicing Report, acknowledging that any earthworks or structures within flow paths must be carefully designed to prevent adverse effects on neighbouring properties, and may require adjustments to other design elements. Stormwater discharge from the site is proposed into the floodway at rates equivalent to existing runoff, with no increase in peak discharge, but allowance for extended duration. Mitigation measures are proposed to address increased runoff and potential contamination from impervious surfaces, including attenuation storage, extended discharge duration, and treatment via swales, rain gardens, filter strips, and separators.

The submission demonstrates alignment with good engineering practice and regional compliance requirements. The proposed mitigation measures aim to reduce peak runoff to predevelopment levels, maintain flood levels, and ensure compliance with Regional Council rules. Approximately 15% of the developed land area is allocated for stormwater attenuation and treatment devices, which is considered reasonable. The report expresses high confidence that adverse effects from stormwater runoff will be less than minor, provided good practice and engineering standards are followed.

The Kerikeri-Waipapa 3 Waters Capacity & Modelling and the evidence provided are aligned in their approach to stormwater management for the proposed development. Stormwater servicing is feasible if best-practice design is followed, including attenuation and treatment measures to ensure post-development discharge rates do not exceed pre-development levels. The importance of integrated planning, the use of floodways and overland flow paths, and compliance with FNDC standards is required to ensure that it is addressed appropriately.

Finding

Stormwater servicing for the proposed development is considered feasible, supported by a comprehensive hydrological assessment and the adoption of a formalised floodway for managing flood risk. The design approach ensures that stormwater discharge rates from the site will not exceed pre-development levels, with mitigation measures such as attenuation storage, extended discharge duration, and water quality treatment through swales, rain gardens, and other industry-standard devices. These measures are expected to occupy approximately 15% of the developed land area, and can be sufficiently accommodated on the site layout.

Careful design and ongoing assessment are important to avoid adverse impacts on neighbouring properties, particularly where earthworks or structures intersect natural flow paths. Compliance with FNDC Engineering Standards and Regional Council rules is required, and integrated catchment management planning is recommended to address both quantity and quality controls.

Overall, provided that best practice engineering standards are followed and appropriate mitigation is implemented, the risk of adverse stormwater effects is expected to be minor, and the site can be serviced effectively for stormwater as development progresses.

3 OVERALL CONCLUSIONS

The 1828 & 1878 SH10, Kerikeri-Waipapa site is located within an area where FNDC is planning significant investment in three waters infrastructure. The applicant has acknowledged existing network constraints and proposed a staged approach to development, including interim on-site solutions and flexibility to align with the Council's upgrade programme. This reflects an understanding of current system limitations and the importance of ongoing coordination with FNDC to confirm servicing feasibility.

Water Supply

Water servicing is feasible in principle, supported by the site's proximity to major supply assets and FNDC's ongoing investment in new sources and upgrades. However, the existing public water supply network is operating near capacity, and substantial upgrades to treatment, conveyance, and storage will be required to support the full development yield. These constraints do not preclude rezoning but must be addressed at subdivision through detailed modelling and staging conditions agreed with FNDC to ensure a reliable and resilient supply. At subdivision, compliance with NZ Building Code Clause G12 (Water Supplies) will need to be demonstrated.

Wastewater

Wastewater servicing for the proposed development is feasible, provided a staged approach is adopted. This involves interim on-site treatment and land disposal for early phases, with a planned transition to public network connection as Council upgrades are delivered. To ensure a successful transition, the developer must provide clear and enforceable commitments for decommissioning, remediation, and rehabilitation of the on-site system, secured through consent conditions or financial bonds. Developer contributions should be proportional to both interim and long-term infrastructure, consistent with FNDC's "growth pays for growth" policy, to avoid shifting costs or priorities away from broader community needs.

Consentability of land or water discharge will depend on compliance with evolving national standards. The proposed national wastewater environmental performance standard sets clear contaminant limits, including $cBOD_5$, TSS, total nitrogen, total phosphorus, ammonia, E. coli, and enterococci, as well as monitoring requirements tailored to the sensitivity of the receiving environment. Any future discharge to water must meet these limits, and robust evidence will be needed to demonstrate compliance. For land-based disposal, regional rules and the Resource Management Act 1991 still apply, but the national standard provides a benchmark for best practice. Overall, wastewater servicing is feasible in principle, subject to robust transition planning, proportional developer funding, and compliance with national and regional standards.

Stormwater

Stormwater servicing is considered feasible if best-practice design and FNDC standards are followed, including attenuation and treatment measures to ensure post-development discharge rates do not exceed pre-development levels. The proposal includes a formalised floodway and mitigation measures consistent with FNDC requirements, but the applicant's evidence lacks a complete servicing narrative and does not fully address how stormwater requirements will be met, particularly in relation to site topography and regulatory compliance. Notwithstanding the above, this does not preclude rezoning at this stage and can be addressed at the subdivision stage.

Overall Finding

The site is likely to be serviceable for three waters in the medium term, subject to completion of FNDC's planned upgrades and alignment of development staging with available capacity. The applicant's servicing strategy, incorporating staging, interim solutions, and further modelling, demonstrates an understanding of infrastructure requirements and commitment to collaborating with the Council. Rezoning is considered feasible in principle, subject to continued coordination and clear subdivision conditions for capacity confirmation, detailed modelling, and integration with FNDC's upgrade programme.

Far North District Council

Smartlife Trust

23 Aranga Road, Kerikeri

Plan Change Three Waters Infrastructure Peer Review

29 August 2025

1-14713.00

Smartlife Trust, 23 Aranga Road, Kerikeri Plan Change Three Waters Infrastructure Peer Review

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REV	DATE	DETAILS
A	29 August 2025	Issue

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INTRODUCTION

This peer review has been prepared at the request of Far North District Council (FNDC) to provide an independent assessment of infrastructure servicing feasibility for a rezoning submission at 23 Aranga Road, Kerikeri and 23A Aranga Road, Kerikeri (the "site").

The submission, supported by planning evidence from Steven Remana Sanson (16 June 2025), seeks to rezone 5.1671 ha of land from Rural Residential to General Residential in the Proposed District Plan.

This review is framed against the requirements of the Independent Hearings Panel Final Minute 14 (2 December 2024), which sets the rezoning criteria for infrastructure (three waters) servicing.

Supporting documents reviewed include:

- FNDC, District Plan Changes – Infrastructure High Level Review (February 2024)
- FNDC, Engineering Standards for Land Development (May 2023)
- Applicant evidence (Sanson, 2025)
- Applicant evidence (Bay of Island Planning Limited Response Memo, July 2025)
- Trine Kel Limited (TKL) high-level assessment of FNDC's urban reticulation systems (April 2025)

The scope covers:

- **Water supply** feasibility and connection options
- **Wastewater** servicing capacity and alignment with FNDC infrastructure plans
- **Stormwater** management approach, neutrality, and downstream effects
- **General servicing risks** including staging, affected party approvals, and integration with roading or landform constraints

Out of Scope:

This peer review does not involve independent network modelling or hydraulic capacity testing, consistent with the engagement assumptions. Transport, geotechnical, detailed design, or property/legal matters are excluded unless they materially influence three waters feasibility.

1 GENERAL

1.1 SITE AND PROPOSAL

The subject site is located at 23 Aranga Road, Kerikeri and 23A Aranga Road, Kerikeri and is approximately 5.1671 ha in size (5.073 ha and 941 m² in size, respectively). The existing uses for the site include a dwelling and an accommodation facility known as Kerikeri Holiday Park and Motels, both accessed from Aranga Road.

The rezoning request seeks to change the zoning from Rural Residential to General Residential, thereby enabling a higher development yield. The applicant's July 2025 memo records potential yields of 58 realistic Lots, or 86–172 theoretical Lots, depending on whether subdivision is undertaken as a controlled or discretionary activity.

1.2 APPLICANT'S SERVICING STATEMENTS

Key claims from the planning evidence

The original planning evidence stated that the site is already connected to urban services and that detailed servicing would be confirmed at the subdivision stage rather than at rezoning. It also claimed there is no public information to suggest that connections would be constrained.

In summary:

- The site is already connected to urban services.
- Recent subdivision consents have allowed connections for Lot 1 (23A Aranga Road, 941 m^2) and Lot 2 (approved 4,161 m^2 subdivision of 23 Aranga Road) to the Council water, wastewater and stormwater infrastructure.
- Recent subdivision consents have allowed connection for Lot 3 (remainder of 23 Aranga Road, 4.656 ha) to the Council water infrastructure. Lot 3 is to maintain the existing connection to Council wastewater infrastructure, where wastewater is serviced by internal gravity infrastructure directed towards the wastewater treatment plant located in the north-west corner of the site, before being pumped via a pressure sewer line to the Council's urban reticulated system. This includes onsite wastewater storage tanks and off-peak pumping into the Council system.
- The recent subdivision consent granted indicates subdivision in two stages. Stage 1 includes the subdivision of Lot 1 (already completed) to form 23A Aranga Road, with the remainder to be subdivided into Lots 2 and 3 in stage 2.
- Detailed servicing will be confirmed at the time of subdivision or development.
- No public information suggests constraints on connection to Kerikeri's three waters infrastructure.

Further information from the Bay of Island Planning Limited Response Memo (July 2025)

The subsequent Bay of Island Planning Limited Response Memo response (July 2025) improves on this position by providing yield ranges for each of the three Lots. However, the memo stops short of providing any demand calculations, connection design details, or servicing concept plans.

- Lot 1 is unlikely to be further subdivided, noting recent approvals have allowed for the residential section to be connected to all Council services.
- Lot 2 proposed development scheme promotes 6 residential Lots and 1 access Lot, noting recent approvals have allowed for the residential section to be connected to all Council services.

- Lot 3 proposed development scheme promotes 23 residential Lots and 2 access Lots, with the remainder unlikely to be subdivided. It is noted that although unlikely to be subdivided, due to its size, it is possible for a similar number of Lots to be developed. This gives a potential total of 52 residential Lots and 4 access Lots.
- Yield estimates are provided (These figures assist FNDC in checking capacity but are not translated into flows (L/s or L/p/d) or capacity headroom analysis.):
  - Realistic subdivision: 58 Lots (future subdivision of proposed Lot 2 and proposed Lot 3)
  - Theoretical subdivision: 86 Lots (controlled subdivision) and 172 Lots (discretionary subdivision)

Observation:

The memo outlines potential yields but remains focused on planning, lacking technical confirmation of connection points, firefighting provision, or downstream capacity. It does not include a three waters servicing plan or constraints analysis. However, for a development of this scale, the provided information and existing approvals are sufficient to confirm serviceability is viable, with further details to be addressed at the subdivision consent stage.

2 THREE WATERS SERVICING

Assessment Framework – Minute 14

Minute 14 of the Independent Hearings Panel (Final, 2 December 2024) sets the framework for assessing rezoning requests in the Proposed FNDC District Plan. It requires applicants to demonstrate that the subdivision and development potential enabled by rezoning can be supported by **adequate three waters servicing**.

Specifically, evidence should address:

1. **Proposed connections**
   Where and how the site would connect to existing water, wastewater, and stormwater infrastructure, demonstrating viability.
2. **Engagement and assumptions**
   Outcomes of discussions with FNDC infrastructure staff, and any assumptions about servicing, sequencing, or capacity, including the impact of other plan-enabled development.
3. **On-site Provision**
   Any infrastructure required on-site to make development feasible, such as storage, pumping, or attenuation devices.
4. **Substantive Demand**
   Where rezoning creates material demand on bulk infrastructure, applicants are expected to engage proactively with FNDC's infrastructure team prior to hearings.

Minute 14 is explicit that detailed design is not expected at the rezoning stage. Instead, the requirement is for a credible, concept-level servicing assessment that gives Council and the Panel confidence that development enabled by rezoning can be adequately serviced.

In practice, this means applicants must "tell the servicing story": identify the connections, acknowledge the demand that rezoning will generate, summarise what has been discussed with infrastructure staff, and show how any constraints or on-site provisions could be managed.

2.1 TRINE KEL LIMITED'S HIGH-LEVEL NETWORK CAPACITY ASSESSMENT (FNDC, 2025)

The FNDC network capacity assessment applies conservative thresholds. Networks are flagged as failing if wastewater pipes surcharge or flood, or if water pressures drop below 250 kPa (peak day) or 100 kPa (firefighting).

The modelling snapshot reflects the state of FNDC's networks as represented in DIA-funded hydraulic models that were procured in 2020 and completed in 2022, applied by TKL in their April 2025 review to assess current condition only. Future growth assessments (5-, 10-, and 25-year horizons) are intended to be addressed separately as Stage 2 of FNDC's programme.

This provides a baseline position:

- If the network passes, there is capacity (especially considering the relatively small maximum yield of this subdivision.
- If it fails, there may still be some practical headroom, but this cannot be confirmed without more detailed analysis.

It is therefore reasonable to rely on the FNDC results at rezoning stage, while noting that further modelling and refined calculations can be undertaken at the subdivision stage, when there is more certainty around actual yields, development staging, and greater clarity on FNDC's long-term plans and near-term capital works programmes

2.2 WATER SUPPLY

There is an existing 100mm diameter water main in Aranga Road, confirming that reticulated water is physically available at the site.

The applicant's July 2025 memo declared that recent approvals have allowed for the residential sections (Lot 1 and Lot 2) to be connected to all Council services as outlined in Section 1.2, with a water supply connection proposed off the Aranga Road water main. It is understood from the applicant's evidence that the remainder of the site (Lot 3) has also gained approval for connection to the Council water supply network in Aranga Road. No information has been provided at this stage on the proposed metered connection and lateral connection sizing for each Lot.

The applicant's July 2025 memo declared that in addition to the 6 residential Lots with approved subdivision consent, there is an additional potential yield of 52 realistic Lots (86-172 theoretical), but these figures were not translated into water demand estimates. No Average Day, Peak Day, or Peak Hour flows were presented, and no firefighting water (PAS 4509) assessment was provided. Without this information, FNDC cannot confirm whether the existing 100 mm diameter pipe main and hydrant coverage are adequate for the rezoning-enabled yield.

The site falls within the Kerikeri Boosted Zone, and a high-level assessment of Kerikeri's water supply network undertaken in March 2025 indicates that there is currently capacity in the network at the site; however, the capacity available has not been quantified. Given the size of the site and the existing approvals in place, it is likely that the capacity available would be sufficient to service the site; however, this should be confirmed.

Finding

The existence of a reticulated network within Aranga Road, existing approvals gained for connection to the Council infrastructure and FNDC's high-level assessment of Kerikeri's water supply network suggest that water supply to the site is feasible. A detailed check on the demand flows and capacity of the Council network has not been addressed or compared to the site's actual yield at this stage. However, this could be determined at the subdivision stage, where alternative methods such as rainwater harvesting could be utilised if capacity is insufficient. Therefore, the servicing solution for the supply of water to the site is viable.

2.3 WASTEWATER

The site is currently serviced by an existing internal wastewater network, which collects and discharges onsite wastewater into the wastewater treatment plant located in the north-west corner of the site. This plant includes onsite wastewater storage tanks and off-peak pumping into the Council reticulated wastewater system in Aranga Road. There is an existing 150mm diameter gravity main in Aranga Road, adjacent to the site, which is the assumed discharge location for the site.

Appendix A of the applicant's evidence shows that the existing pressure sewer main downstream of the storage tanks is positioned adjacent to the western and southern boundaries of the site, before discharging into Aranga Road. No detail has been provided regarding the tie-in location, invert levels, pressure main sizing or the method by which the site would be connected for future development. The applicant's submission has stated that "*the creation of residential sites would result in less wastewater being disposed into the reticulated system compared to the current volumes discharged from the Park operations."* However, no supporting

information has been provided to support this statement and it would therefore need to be confirmed at the subdivision consent stage.

The existing agreement in place for the site to discharge wastewater to the Council connection point at 23 Aranga Road allows for 20 m^3 per day of wastewater to be conveyed from the site to the council reticulated network. The breakdown for each Lot includes:

- Lot 1: 0.5 m^3
- Lot 2: 2 m^3
- Lot 3: 17.5 m^3

The applicant's planning evidence confirms that residential subdivision approvals have already been granted to allow direct connections into the Council wastewater system for Lot 1 and Lot 2, with Lot 3 able to maintain a connection to the Council wastewater system via the existing internal infrastructure and pressure sewer network.

The Bay of Island Planning Limited Response Memo records yield ranges but does not convert these into wastewater flows (ADWF, PDWF, PWWF). Without flows, downstream capacity and treatment plant headroom cannot be confirmed.

A high-level assessment of Kerikeri's wastewater supply network undertaken in March 2025 indicates that, following repairs made to the wastewater network between 2019-2025, there is currently capacity in the network downstream of the site; however the capacity available has not been quantified. Given the size of the site and the existing approvals in place, it is likely that the capacity available would be sufficient to service the site; however this should be confirmed.

Finding

Given that the existing network present within Aranga Road has capacity, and the site has an existing agreement to discharge 20 m^3 of wastewater per day to the Council network, this suggests that wastewater servicing is feasible. A detailed check on the flows and downstream capacity has not been addressed or compared to the site's actual yield at this stage. However, this could be determined at the subdivision stage, where alternative methods such as additional on-site storage could be utilised if capacity is insufficient. Therefore, the servicing solution for wastewater is viable.

2.4 STORMWATER

The applicant's planning evidence confirms that previous subdivision consents have already been granted to allow direct connections into the Council stormwater system for Lot 1 and Lot 2. Stage 1 of the subdivision includes dividing the site into two Lots (23 Aranga Road, 5.07 ha and 23A Aranga Road, 941 m^2), and a proposed subdivision plan for stage 1 shows a reticulated stormwater network and three stormwater attenuation tanks within the site, which appear to drain via overland flow towards the Puketotara Stream on the site's northern boundary. Impermeable surfaces for 23 and 23A Aranga Road (stage 1) have been provided and are included in Table 2-1.

Table 2-1: Areas of impermeable surfaces

Address	**23 Aranga Road**	**23A Aranga Road**
Total Area	5.072 ha	941 m^2
Area of impermeable surfaces	1.1924 ha	564 m^2

No further information has been provided to confirm the sizing of the internal network and attenuation, address the stormwater mitigation requirements and management of stormwater on the site. The consent provided as

evidence by the applicant confirms that the stormwater attenuation tanks have been approved via detailed design by FNDC.

The existing consent granted has consent conditions included relating to stormwater servicing and management, which will need to be addressed prior to further site development.

The applicant's planning evidence and memo provide no additional information on stormwater servicing relating to proposed future development and subdivision of the site (Lot 2 and Lot 3). There is no acknowledgement that rezoning will further increase impervious surfaces and generate additional runoff. FNDC's *Engineering Standards for Land Development* (2023) require developments to achieve stormwater neutrality, provide secondary flow paths, and demonstrate safe discharge without adverse effects.

The applicant has not explained how the requirements will be met if the site is further subdivided. There is no mention of attenuation, discharge feasibility, or network connection, or evidence of secondary flow path consideration if the site was to be subdivided further. The site slopes away from the nearest stormwater pipe on Aranga Road toward Puketotara Stream.

Finding

Subdivision consent for Lot 1 and Lot 2 has already been granted, and requirements for further information on the stormwater servicing and management of stormwater at the site should be managed under this consent.

There is currently no servicing story provided for stormwater on Lot 3, which does not satisfy the requirements of Minute 14. The previous subdivision consent granted for this site indicates that stormwater servicing has typically been addressed during the subdivision rather than the rezoning stage. Attenuation has also been proposed in the past subdivision proposal, and it is anticipated that a similar approach would be used for future subdivisions of the site, noting that there most likely will be an increase in stormwater runoff generated from the site. Overall, considering the site's current use and existing approvals, stormwater servicing appears feasible but should undergo further assessment at the subdivision stage in collaboration with FNDC.

3 OVERALL CONCLUSIONS

The applicant has determined that reticulated water, stormwater and wastewater services are present in the area and that additional connections to the networks are possible. The applicant has also outlined that several approvals have already been obtained for connections to the council three waters network, and the site had an existing connection to the wastewater network and an agreement to discharge 20 m^3 of wastewater per day. FNDC's high-level assessment of Kerikeri's wastewater and water supply networks undertaken in March 2025 indicate there is capacity in the existing water and wastewater networks at the site. However, the evidence stops short of telling a complete servicing story.

The presence of a reticulated water network and existing approvals indicates that water supply to the site is feasible. Final checks on network capacity and site demand should be undertaken at the subdivision stage. Overall, water servicing for the site appears viable.

Wastewater servicing appears feasible for the site, given the existing network capacity on Aranga Road and the existing agreement to discharge 20 m^3 of wastewater per day. Detailed assessment of flows and downstream capacity should be undertaken at the subdivision stage in coordination with FNDC to confirm viability.

Subdivision consent for Lot 1 and Lot 2 has already been granted, and requirements for further information on the stormwater servicing and management of stormwater for these Lots should be managed under this consent. The application lacks sufficient information on stormwater servicing for Lot 3, with key details deferred to the subdivision stage. While previous subdivision approvals granted have used attenuation and the site appears feasible for stormwater management, details should be addressed in coordination with FNDC before further subdivision.