RANGITIKEI DISTRICT COUNCIL



August 2021

MARTON RAIL HUB

Comprehensive Development Plan - Draft





MARTON RAIL HUB -

COMPREHENSIVE DEVELOPMENT PLAN

This report ('**Report**') has been prepared by WSP exclusively for Rangitikei District Council ('**Client**') in relation to the Comprehensive Development Plan ('**Purpose**') and in accordance with the Conditions of Contract for Consultancy Services Contract with the Client dated 29th January 2021. The findings in this Report are based on and are subject to the assumptions specified in the Report. WSP accepts no liability whatsoever for any reliance on or use of this Report, in whole or in part, for any use or purpose other than the Purpose or any use or reliance on the Report by any third party.

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VERSION	DATE	DETAILS
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INTRODUCTION

The purpose of this Comprehensive Development Plan (**CDP**) Framework report is to facilitate establishment of the Marton Rail Hub.

This report is currently split into:

• Part A: Plan Change Appeal Supporting Information

This section will inform parties about the options considered prior to arriving at the preferred CDP site and rail siding layout. It includes assessment against regional and district plan objectives and policies. It records site analysis and preliminary information related to the design of infrastructure services for the CDP site.

It is not intended that this section form part of the final CDP Framework report following appeal resolution. Part A is provided as a stand-alone document and includes information to resolve key gaps in the technical information about the land missing in the Plan Change hearing.

• Part B: The CDP Framework is intended to assist resource consent applications.

The section sets out the background to the thresholds for potential effects to maintain a baseline of character and amenity values for the surrounding environment. It provides a technical assessment of potential effects for a modelled development scenario.

The Framework Report is intended to provide clarity for applicants seeking to establish industrial activities at the CDP site. Such applications will need to maintain this baseline environment or demonstrate that potential effects are well researched and potential adverse effects will be mitigated or avoided as far as practicable.

Currently, the Plan Change is subject to an appeal and this report will inform proposed mediation of the issues raised. Following resolution of the appeal by the Environment Court, this CDP Framework report (**the Framework report**) will be updated as required to reflect the Court's decision.

RANGITIKEI DISTRICT COUNCIL



MARTON RAIL HUB

Part A - Plan Change Supporting Information

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1 RE-EVALUATION OF PLAN CHANGE

The section 32 report for the original Plan Change and the s32AA evaluation assisted the Independent Commissioner to recommend decisions on submissions to the proposed Plan Change to rezone 217 hectares (**ha**) of Rural zoned land to Industrial. The Council adopted the Commissioner recommendations and approved the Plan Change subject to amendments, in response to submissions in the hearing process.

This decision re-zones 40 ha of land adjacent to the North Island Main Trunk Line (**NIMT**) to Industrial as identified below.



Figure 1 - Aerial Map showing the land zoned to industrial and proposed CDP area

Part A comprises key additional information that will inform the appeal mediation and resolution process. It needs to be re-evaluated in accordance with s32 of the Resource Management Act 1991, to enable proper consideration of the preferred CDP and re-oriented area within the original Plan Change as proposed to be zoned Industrial through the Plan Change appeal process. That re-evaluation will be informed by this report.

1.1 BACKGROUND

Rangitīkei District Plan Change 1165, 1151 and 1091 State Highway I, Marton (**the Plan Change**) was publicly notified on 29 June 2019. The Plan Change relates to the proposed rezoning of 1165, 1151 and 1091 State Highway I (**SHI**), Marton from Rural to Industrial. The Plan Change decision released in August 2020, rezoned approximately 40 ha of land adjoining the NIMT, with access off Makirikiri Road, from Rural to Industrial, overlain with an 'Industrial Development Area' (**IDA**) notation.

In addition to the current Rangitīkei District Plan (**RDP**) provisions that apply to the Industrial Zone, the Plan Change introduced a set of provisions that specifically apply to subdivision, development and apply an IDA overlay.

The Plan Change amended sections A5 and B5 and the definitions section of the RDP and amended the District Plan maps to show the CDP as Industrial Zone with an IDA overlay. It introduced provisions into Rule B5 of the RDP, classifying any industrial activities located within the area as a Discretionary Activity and to require certain information as part of any resource consent applied for under this rule.

Rangitikei District Council (**RDC**) has received COVID 19 Response and Recovery funding to establish a private rail siding and industrial hub at the Marton IDA. A CDP has been prepared which addresses all matters specified in the Plan Change decision (August 2020). The CDP and this report record the baseline of character and amenity values within the site and for the surrounding environment.

To inform the development of the CDP, including an assessment of potential effects of a modelled scenario of industrial activities, the following technical assessments have been completed: an Assessment of Ecological Effects (**Ecological Report**), Landscape and Visual Assessment (**LVA**), Traffic Impact Assessment (**TIA**), Air Quality Impact Assessment, Preliminary Geotechnical Assessment, Preliminary Site Investigation, Acoustic Assessment, a Soil Survey, Lighting Impact Statement and Preliminary Design Report - Engineering for three waters and roading infrastructure services.

2 SITE CONDITIONS

2.1 NATURAL HAZARD AVOIDANCE

GROUND CONDITIONS AND FAULTLINE

Babbage prepared a Geotechnical Assessment Report¹ for KiwiRail to inform the design of the new rail siding in the IDA approved by the Council in August 2020. Geotechnical investigations were undertaken along the proposed alignment and comprised test pitting and Dynamic Cone Penetrometer (**DCP**) testing. Ground conditions were found to be favourable, comprising very stiff to hard clays overlying medium dense to dense gravels. Groundwater was not encountered and was anticipated to be suppressed at depths greater than 5.0 m below ground level (**m/bgl**).

This information is relevant to the CDP site, as it provides guidance on the general ground conditions for the wider area.

The report contained the following advice and recommendations:

- If cut to fill earthworks are required, site won material is considered suitable for re-use with only minor wetting or drying anticipated to be required to achieve adequate compaction (to be confirmed by subsequent laboratory testing if cut to fill operations are required).
- For permanent batter heights up to 2.0 m for cut or fill, maximum batter angles of up to 1V:2.5H are considered acceptable. However, 1V:3H are preferred and will perform better in terms of long-term maintenance. Steeper batters should be subject to further assessment.
- Further geotechnical input will be required during detailed design. This work will involve laboratory testing, input into construction staging and methodologies, and the review of civil plans prior to submission of consent applications.

WSP Geotechnical Engineers peer reviewed the Geotechnical Assessment Report and confirmed the conclusions and recommendations were appropriate.

WSP Geotechnical Engineers also undertook a site visit and concluded that physical ground investigations could be deferred to inform detailed design of infrastructure services and civil works for the rail siding. This conclusion built on the Preliminary Geotechnical Appraisal² completed by WSP-Opus for the Plan Change Hearing.

The active Leedstown-Putorino Faultline intersects the northern part of the original 217 ha Plan Change site in a north-east to south-west orientation. It is a reverse fault and is recorded to have a recurrence interval of approximately 5,000 to 10,000 years. Regarding the presence of the Faultline on site, the geotechnical engineer recommended no development should occur within the fault avoidance zone which is;

"an area created by establishing a buffer zone either side of the known fault trace (or the identified likely fault rupture zone). These Guidelines recommend a minimum buffer zone of 20 metres either side of the known fault trace or likely fault rupture zone".

¹ Marton Rail Siding Geotechnical Assessment Report for: KiwiRail, Babbage, March 2021

² Proposed Plan Change – Rezoning Rural to Industrial Marton, Preliminary Geotechnical Appraisal, WSP-Opus, Sept 2019

The CDP site avoids the Fault and is well beyond the recommended fault buffer zone.

FLOODING

The site is not identified as being within any flood risk areas on the RDC or Horizons Regional Council (**HRC**) maps.

Based on HRC's indicative ponding information there may be areas on the CDP site that are prone to surface ponding during high rainfall events and wet periods of the year. The CDP site has been designed such that overland flow paths for the northern catchment are enabled to flow as naturally as possible around the CDP site to existing waterbodies. Stormwater runoff within the CDP site itself will be captured onsite and directed to a detention basin, which once treated to a standard prescribed by HRC, discharges to the unnamed stream onsite. This basin will be sized to attenuate stormwater discharge so it remains neutral for a 50 year 2 hour storm event as required by RDC and HRC.

2.2 LOCATION OF HIGHLY PRODUCTIVE AND VERSATILE SOILS

A Soil Survey was completed to inform the CDP and is attached as Appendix A. The survey concluded that the site is 'Marton silt loam' across the entire subject site. The Land Use Classification was deemed to be Class III based on:

- The high proportion of clay within the profile, where a clay textured soil is an unfavourable soil characteristic for Class I and II versatile soils land but can appear in Class III land;
- Wetness of the soil, where even with drainage, significant waterlogging would remain; and
- Limitations on the versatility of the land due to waterlogging. There is a moderate limitation to arable land uses that would restrict the choice of crops and the intensity of cultivations.

3 ALTERNATIVES CONSIDERED

The Resource Management Act 1991 (**the Act**) requires that when a Council undertakes a plan change it must produce a report evaluating the proposed provisions. This is known as a Section 32 Report. This report will assist the Council to make a further re-evaluation under s32AA, of the proposed Plan Change prepared in accordance with section 32 of the Act (as amended 2013).

The evaluation of why the Council confirmed this 217 ha location in the District and within Marton have been evaluated in the previous s32 evaluation reports and are not reviewed here.

3.1 RAIL SIDING LOCATION OPTIONS

Several options were considered to reach the preferred solution for the CDP site layout and where the access points will be located on the NIMT³.

The main design constraints were:

- Dual access points from the NIMT required.
- The longitudinal access grade into the siding, maximum allowable grade 1:80 (1.25%).
- Stabling length within the yard min. 530 m, at a maximum grade of 1:200 (0.5%).
- Access point on the southern end needed to be 50 m or more away from the level crossing with Makirikiri Rd.
- Limit costs.
- Balance cut/fill volumes.
- Limit the impact to adjacent land.
- Avoid impact to the gas main that runs under the NIMT (km 179+500).

3.1.1 OPTION 1:

Option 1, refer to Figure 4-1 below, looks at providing access to the siding from two ends located on the NIMT. The alignment starts on the Northern end, closer to the Marton Train Station and comes off the mainline through a 1 in 9 turnout. The turnout is placed after the existing turnouts that link to the terminus line south of the mainline.

Past the turnout, the line follows a grade of 1.48% (or 1 in 68), in order to reach the stabling area where the grade is 0.5%. The length of the stabling area is 530 m (imposed by the length of a 30 x wagon train).

Past the stabling area, the line descends at a grade of 1.38% (or 1 in 72), to tie back into the existing mainline through another 1 in 9 turnout, which is placed close to Makirikiri Road.

³ KiwiRail Marton Rail Hub - Track Concept Design Report, WSP, 29 June 2021





3.1.2 OPTION 2B

With this option, refer to Figure 4-2 below, the design uses the runaway turnout that follows the loop track in the Marton Train Yard. The track that comes off this runaway turnout is not in use at the moment and provides a great opportunity for the access to the siding.

Starting very close to the runaway turnout, the access to the siding is through a 1 in 9 turnout. After this the rail line follows a 1.25% (or 1 in 80) grade down to the stabling area. The length of the stabling area is 530 m (imposed by the length of a 30 x wagon train).

Past the stabling area the design ties back into the mainline following a descent through a 1.25% (or 1 in 80) grade to the mainline. The turnout on the mainline is a 1 in 9 turnout, which is placed 50 m away from the level crossing with Makirikiri Road.



Figure 3-2 - Marton - Option 2B schematic



Figure 3-3 - Marton - Option 2B

The key benefits of Options 2B are:

- Two entrances that are not on the same line, and the site can potentially be operated only through the secondary entrance, keeping the mainline freed up for any other operations.
- Line runs parallel to the existing mainline.
- Cut/fill balance can be optimised in order to make use of the material on site, if suitable.
- Minimal impact to the adjacent land.
- Making use of the existing runaway turnout.
- Turnout on mainline placed further from the level crossing with Makirikiri Road.
- Grades are within the recommended maximum tolerances of 1 in 80 (1.25%).
- This option, we assume, would not require a longer length of line than that mentioned in option 1.
- Opportunity to stage the build of the rail siding.

The key constraints are:

- Slightly increased length of line.
- Upgrade of the existing line(s) to cater traffic to the rail siding.
- A link to the mainline that runs towards New Plymouth can be done but would require additional changes inside the Marton Yard which can have a significant impact on utilities, Overhead Line Electrifications and other assets within the yard.

3.1.3 OPTION 3

This option, refer to Figure 4-4 below, looks at providing access to the siding, from the runaway track close to Malteurop's legacy rail track and from the mainline on the southern end.

Starting on the northern end of the site, the track comes off the runaway track line closest to the track that provides access to the Malteurop Factory to the east of the site. This access to the siding doesn't necessarily require a 1 in 9 turnout in the beginning but would need upgrades to the existing tracks in the yard for any operational disturbances.

Past the turnout the line follows a 1.00% (or 1 in 100) grade into the stabling area.

The approach is similar to all the previous options, trying to optimise the cut/fill balance through the sump and running the track parallel to the mainline.

Splitting the access points to the siding, and not having them on the mainline, gives the possibility to use longer flatter grades to stay within the recommended maximum tolerances. The starting point level is also below the levels of the NIMT mainline, which opens the opportunity to shorten the siding length and have the tie-in turnout on the mainline further away (260 m) from Makirikiri Road. The stabling area is 530 m long (imposed by the length of a 30 x wagon train).

The track links back into the existing mainline through a 1 in 9 turnout, placed about 260 m away from the intersection with Makirikiri Road.





3.1.4 OPTION 6 - PREFERRED

The design in this option, refer to Figure 4-5, takes a different approach to the original IDA layout, by positioning it perpendicular to the NIMT mainline. The access to the yard is made through 2 turnouts 1:9 coming off the NIMT line, which link back together, before splitting into the CDP site.

The grades achieved when coming off the mainline are within standard 1:200 (or 0.5%) and they are maintained through the CDP site as well.

The CDP site consists of 3 lines, 1 being the central siding inside the hub, with 2 designated for the loading/unloading of logs/containers. The length of the 2 loop lines are 535 m (imposed by the length of a 30 x wagon train).

At the end of the CDP site, there is a small length of line (around 60 m) for loco shunting. With this option the gas main west of the Malteurop facility is not affected.



3.2 INDUSTRIAL ZONE OPTIONS

In relation to how to provide for existing and future demand for large industrial development within the originally notified Plan Change area at Marton, three options have been considered as follows:

- Option 1- Do nothing;
- Option 2 Re-orient and expand the IDA to enable a perpendicular rail siding to be established; and provide additional land for which demand has recently been identified; or
- Option 3 Retain the IDA approved by Council and subject to appeal.

To inform the resolution the outstanding Plan Change appeal consideration of the effectiveness, efficiency and appropriateness of each option to achieve the objectives of the District Plan are discussed below.

OPTION 1: - DO NOTHING

ABANDON PLAN CHANGE AND RETAIN THE RURAL ZONE. RESOURCE CONSENTS COULD BE SOUGHT TO ESTABLISH A RAIL SIDING AND INDUSTRIAL ACTIVITIES.

Costs

- Incremental and potentially ad hoc loss of rural land resource as no strategy for industrial growth is articulated in the District Plan.
- Rural Zone resource consent process would be uncertain and expensive for applicants for rail siding and industrial activities. More costly consent processes.
- Ad hoc consideration of effects for each proposal e.g. noise and emission of dust in relation to sensitive activities.

- Consent processes could become complex and costly, as interests compete to address amenity and reverse sensitivity issues identified during notification of the Plan Change.
- Discharges, earthworks, and other environmental effects will be addressed on an ad hoc site specific basis only.

Economic

- Does not address issues raised by industrial stakeholders including the need to:
 - o Ensure sufficient land is available for future industrial growth;
 - Address the protection of the amenity values enjoyed by sensitive activities established on adjacent land zoned Rural; and
 - Integrate development through adherence to a Comprehensive Development Plan developed for the Marton Rail Hub.
- Does not plan for or respond to identified large scale industrial demand in the Marton area.
- Opportunity for rail siding construction and economic benefits of that facility is likely lost.
- Economic and social opportunity costs due to loss of potential employment directly and indirectly as industrial activity and associated service businesses may not proceed.
- Additional costs to developers and community associated with absence of integrated services planning and design.
- Potential for land fragmentation to limit location options for the large-scale industrial activities.
- Greater level of uncertainty for Council's asset management planning and potential delays to funding of required infrastructure if the activity is not anticipated as infrastructure, particularly transport, water and wastewater upgrades, may need to be incorporated into long term planning.
- Power supply would be problematic, cost prohibitive without an integrated proposal of a significant scale.
- Infrastructure upgrade costs over time paid by community and/or developer, as Post Covid Recovery funding would be withdrawn. Negative economic impact on the community's ability to enable industrial growth and employment.

Benefits

- Initially there would be a small reduction in costs to Council relating to Plan change process and future infrastructure provision as rural land use likely to remain.
- Clarity for industrial developers that community does not support this area being used for large industrial activities and to establish elsewhere.
- Potential amenity/reverse sensitivity effects of industrial activities on neighbouring properties will be avoided if no development occurs.
- No loss of rural resource to industrial activities in this area and rural land use retained.
- Avoids costs associated with adhering to landscaping and CDP requirements proposed with options two and three.
- Potentially retains some greater flexibility in location and site layout options for developers.

Efficiency & Effectiveness

- Not responsive to stakeholder feedback about issues with the current provisions, therefore
 unlikely to be effective in achieving sustainable management, as it does not meet the needs of
 the community particularly in respect of provision of sufficient land to meet anticipated future
 industrial growth.
- Absence of use of a comprehensive development plan as a tool for integrating efficient provision of infrastructure and managing amenity would reduce the effectiveness and efficiency of the District Plan to achieve sustainable management.
- Option 1 does not achieve any of the Council's objectives to encourage industrial development to capitalise on the proximity of SH1 to the NIMT at Marton.

On balance, the costs outweigh the benefits. Option 1 – Do nothing does not provide appropriate or sufficient Industrial zoned land to enable proposed growth, does not appropriately give effect to the One Plan (especially in regard to objectives 3-3 and policies 3-2 and 3-4), does not align with Council's strategic approach and would be ineffective in avoiding, remedying or mitigating adverse effects on the environment.

Opportunities for Economic Growth and Employment

The existing consenting approach and provision of Industrial zoned land especially for high impact industries seeking to expand or establish in the District does not appear to encourage development. This may only be a perception but may limit potential industrial activity in the short to medium term.

Risk of Acting or not Acting if there is Uncertain or Insufficient Information

There is sufficient information to evaluate options. Not acting means the existing Rural Zone provisions would continue to apply to the subject land. Given the evaluation of effects for the modelled scenario of industrial activities at the CDP site, it is clear that this is an appropriate location to capitalise on the economic opportunities facilitated by Post Covid Recovery funding without compromising the surrounding environment, specifically minimising or avoiding adverse effects on sensitive activities in the vicinity.

Appropriateness

This option does not address the issues relevant to sustainable management for the future of the District, and therefore is unlikely to be capable of avoiding, remedying or mitigating environmental effects generated by potential future industrial activities planned or proposed in the Marton Rail Hub area. It does not take account of the most appropriate methods to enable industrial activities, it does not address the issues raised in community consultation, does not give effect to the One Plan and does not address the potential for reverse sensitivity effects.

OPTION 2: - RE-ORIENT AND EXPAND THE IDA (COMPREHENSIVE DEVELOPMENT PLAN - 62HA APPROX.) ZONED INDUSTRIAL AND RAIL SIDING PERPENDICULAR TO NIMT, S95 NOTIFICATION ASSESSMENT WITH PERMITTED OR RESTRICTED DISCRETIONARY STATUS FOR SOME ACTIVITIES

This is the preferred option:

- Encourages industrial activities to locate in the Zone by simplifying the regulatory approach, providing clear performance standards and minimising the potential for effects on sensitive activities in the surrounding area.
- Establishes an Industrial Zone centred on a location that best enables development of a rail siding from the NIMT and recognises the opportunities to integrate this with access to the SH1 network.
- Focuses future large scale industrial activities and development around the NIMT and SH1 recognising existing land use patterns.
- Rezones significant new land to Industrial in the Makirikiri Road area, to better reflect anticipated future land uses consistent with recently completed infrastructure planning research.
- Better integrates existing and new infrastructure and development within the Industrial Zone with requirements to adhere to the CDP where relevant.
- Strengthens landscaping and screening provision to maintain the amenity values of the surrounding rural environment.
- Has researched and confirmed a scenario of activities and their effects to establish that industrial activities including a rail siding can establish in this location without significant adverse effects on existing sensitive activities or compromising amenity values of the surrounding area.
- Rationalises and simplifies the Plan Change regulatory framework to facilitate industrial activity.

Costs

- Loss of rural land resource.
- Costs to industrial activities to achieve mitigation or avoidance of potential noise, dust, lighting, and traffic effects.
- Additional costs for industrial operators in relation to restricted use of buffer yards and requirements to landscape sites and screen activities in addition to wider Stage One planting.
- Some loss of flexibility for developers in relation to the location and layout of activities on-site.
- Costs to achieve mitigation or avoidance of ecological effects on stream and due to removal of vegetation.
- Expense to Council associated with provision of significant infrastructure upgrades.
- Additional costs for Council of preparing and maintaining the CDP and for developers in complying with the CDP.

BENEFITS

- A more streamlined approach to landscaping and screen planting, across the CDP site will improve legibility and understanding for Plan users.
- Encourages industrial development and expansion by providing greater certainty of process and requirements and a clear commitment to the Marton Rail Hub.
- More efficient provision of infrastructure will be achieved, as all development will be required to adhere to the CDP and ensure adverse effects are the same or less than the modelled scenario establishes.
- Opportunity for rail siding construction and economic benefits of that facility is enabled. The rail siding location and concept design has been approved by KiwiRail from their operational perspective.
- Reverse sensitivity effects associated with Fraser Auret property and other potentially affected parties are more efficiently avoided or mitigated compared with Option 3 location.
- Greater certainty for applicants and surrounding properties regarding associated effects.
- Responds to industrial land use demand in the district.
- Economic value and employment associated with industrial land use and associated service activities realised for the district.
- Community economic benefit from Post-Covid Recovery funding for primary infrastructure costs obtained.
- Avoids duplication of notification processes where adverse effects are similar or less than the effects assessed and deemed reasonable for noise, and less than minor for the modelled scenario subject to implementation of avoidance and mitigation measures.

Efficiency

- More efficient provision of infrastructure will be achieved, as most will be installed in Stage One in a coordinated fashion by the developer.
- The rail siding location and concept design has been approved by KiwiRail from an operational perspective.
- All development will be required to adhere consistently to the CDP or demonstrate that adverse
 effects are similar or less than the effects assessed and deemed reasonable for noise and less
 than minor for the modelled scenario subject to implementation of avoidance and mitigation
 measures.
- The District Plan clearly identifies where industrial activities are anticipated.
- District Plan requirements are easily understood and clear at the outset of any development.
- On balance, the benefits outweigh the costs. The Plan change efficiently provides for future demand for industrial activities in a location that maximises the opportunities of proximity to the NIMT and SH1 while avoiding, remedying or mitigating adverse effects on the environment.

EFFECTIVENESS

 Encourages availability of suitable land for industry in sufficient quantity to enable choice of location and site size for the longer term, facilitating the potential for new industrial development to capitalise on the proximity of the NIMT and SH1 at Marton for the benefit of the district and region.

Opportunities for Economic Growth and Employment

Council seeks to attract new industries and encourage retention and expansion of existing industry. Option 2 broadly simplifies the process for industrial activities wishing to expand or establish in the district, by identifying a new area suitable for large scale industrial development located adjacent to the NIMT and SH1. This is expected to encourage expansion of industrial activity in the medium term.

Provision of additional land previously zoned rural, and investigation of a credible scenario of potential activities at Marton Rail Hub, should reduce the potential for reverse sensitivity issues in the vicinity over time. It will also ensure an appropriate volume of suitable land is available to satisfy future demand out to 2031, based on the activities already known to be actively pursuing their options for development, as recorded in the modelled scenario.

These actions together will enable Marton and the wider region to capitalise on potential employment and other economic benefits that may result from expansion of industrial activity in the Rangitīkei District.

Risk of Acting or not Acting if there is Uncertain or Insufficient Information

There is sufficient information to act as proposed. It would be inappropriate not to act on the information Council has collated and as documented in sections 3 – 5 of this report. Not acting would likely result in fewer growth and employment opportunities as development would be a more complex and ad hoc process than proposed by this CDP option. Reverse sensitivity issues may not be comprehensively addressed or would be more costly for developers further constraining and discouraging future investment in the district. Amenity values along key transport routes and within the Rural Zone adjacent would likely deteriorate over time, without the directive provided through the CDP to at least maintain such values.

Appropriateness

This option strikes an appropriate balance between enabling industrial activities to establish in the District with some degree of certainty, whilst also ensuring that actual and potential adverse effects will be avoided, remedied or mitigated, or a consent process required to enable consideration of the effects on the environment.

OPTION 3: - RETAIN THE IDA - 40HA (APPROX.) ZONED INDUSTRIAL ADJACENT TO THE NIMT WITH RAIL SIDING PARALLEL TO NIMT, MANDATORY NOTIFICATION AND ASSESSMENT REQUIREMENTS

This option was approved by Council but is subject to appeal:

- Encourages industrial activities to locate in the Zone by identifying land for future development, providing clear performance standards and minimising the potential for effects on sensitive activities in the surrounding area.
- Design investigations for the rail siding completed since the Plan Change was approved, concluded that a rail siding within this Industrial Development Area was cost prohibitive to establish, being in the order of \$40M.
- The rail siding is a critical component of the rational to establish a new large-scale industrial zone. This option would not achieve the objectives of the Plan Change.
- The parallel rail siding location and concept design is not supported by KiwiRail from an operational perspective.

Costs

- Opportunity for rail siding construction and economic benefits of that facility is lost as topography in this location, prevents a cost-effective rail siding design and function.
- Loss of rural land resource.
- Increased potential for reverse sensitivity and amenity effects for surrounding properties as compared with CDP site as proposed in Option 2 given proximity to sensitive receptors.
- Responds to industrial land use demand in the district but does not recognise land area needs of tenants identified.
- Change in landscape and visual character will result.
- Expense to Council associated with supply of infrastructure.
- Additional time and costs for Council and developers.

Benefits

- Responds to industrial land demand more than Option 1- Do nothing.
- Greater certainty for applicants and surrounding land uses than Option 1- Do nothing.
- Economic value and employment associated with industrial land use and activities realised for the district albeit at reduced value as compared with CDP area as proposed (Option 2).
- Would strengthen landscaping and screening provision to maintain the amenity values of the surrounding rural environment.
- Would integrate existing and new infrastructure and development within the Industrial Zone with requirements to adhere to a CDP where relevant.

EFFICIENCY & EFFECTIVENESS

- Not responsive to stakeholder demand for a rail siding and constraints for location of siding and additional industrial land for expansion, therefore unlikely to be effective in achieving sustainable management, as it does not meet the needs of the community particularly in respect of provision of rail infrastructure and avoiding or mitigating adverse effects on the surrounding environment.
- Does not create efficient use of resources as does not capitalise on the opportunity to integrate development with existing key transportation networks being proximity to both SH1 and the NIMT.
- This option would be more efficient than Option 1, as like Option 2, a Comprehensive Development Plan would be established. This would facilitate integrated and efficient provision of infrastructure and management of amenity, improving the effectiveness and efficiency of the District Plan to achieve sustainable management.
- On balance, the costs outweigh the benefits. Option 3 does not efficiently provide for use and development of the land for industrial purposes, does not appropriately give effect to the One Plan (especially in regard to objectives 3-3 and policies 3-2 and 3-4), does not align with Council's strategic approach as a rail siding could not be established to facilitate development and would be less ineffective in avoiding, remedying or mitigating adverse effects on the environment compared to Option 2.

Opportunities for Economic Growth and Employment

The existing District Plan approach especially for large scale industries seeking to expand or establish in the district does not appear to encourage such development. The establishment of a rail siding is considered to be the critical infrastructure component to facilitate economic growth and employment. Investigations of rail design have concluded that a cost-effective siding cannot be established in this IDA location. If this option is adopted it is unlikely that any of the proposed developments will proceed in Marton.

Risk of Acting or not Acting if there is Uncertain or Insufficient Information

There is sufficient information to evaluate options. Not acting means the existing Rural Zone provisions would continue to apply. These are restrictive and limit opportunities for industrial development and retains exposure for sensitivity activities to the effects of industrial activities.

Appropriateness

This option does not address the issues relevant to sustainable management for the future of the district, and therefore is unlikely to be capable of avoiding, remedying or mitigating environmental effects generated by potential future industrial activities planned or proposed in the Marton Rail Hub area. It does not acknowledge that a rail siding will not be established if this land is zoned Industrial. It does not take account of the most appropriate methods to enable industrial activities, it does not address the issues raised in design investigations and community engagement and does not give effect to the One Plan.

Based on the costs and benefits associated with each alternative, Option 2 (the CDP site as detailed in this Framework Report) is the preferred option as it strikes an appropriate balance between responding to industrial land use demand and physical constraints for the rail siding design whilst responding to concerns raised by surrounding property owners and avoiding or mitigating environmental effects. Option 3 is rejected as a rail siding in that location was not deemed feasible after considerable design investigation was undertaken. A \$40M rough estimate of costs proved excessive.

4 CONSISTENCY WITH OBJECTIVES AND POLICIES

4.1 HORIZONS ONE PLAN

The assessment of the proposed Plan Change against the One Plan objectives and policies completed at notification and reviewed in the s42A officer report for the Hearing is still appropriate except where the following additional comments are made below.

4.1.1 TE AO MĀORI

Objective 2-1: Resource management

- a. To have regard to the mauri of natural and physical resources to enable hapū and iwi to provide for their social, economic and cultural wellbeing.
- b. Kaitiakitanga must be given particular regard and the relationship of hapū and iwi with their ancestral lands, water, sites, wāhi tapu and other taonga (including wāhi tūpuna) must be recognised and provided for through resource management processes.

Retain the existing assessment.

4.1.2 INFRASTRUCTURE, ENERGY, WASTE, HAZARDOUS SUBSTANCES, AND CONTAMINATED LAND

Objective 3-2: Energy.

An improvement in the efficiency of the end use of energy and an increase in the use of renewable energy resources within the Region.

Objective 3-3: The strategic integration of infrastructure with land use

Urban development occurs in a strategically planned manner which allows for the adequate and timely supply of land and associated infrastructure.

Objective 3-4: Urban growth and rural residential subdivision on versatile soils

To ensure that territorial authorities consider the benefits of retaining Class I and II versatile soils for use as production land when providing for urban growth and rural residential subdivision.

Objective 3-5: Waste, hazardous substances and contaminated land

The Regional Council and Territorial Authorities must work together in a regionally consistent way to:

- *i.* minimise the quantity of waste generated in the Region and ensure it is disposed of appropriately,
- *ii.* manage adverse effects from the use, storage, disposal and transportation of hazardous substances,
- iii. and manage adverse effects from contaminated land.

The previous assessment against objectives 3-3, and 3-4 are relied on except that the technical reports have now been completed to confirm the asset management requirements which will likely be added to the Council's Long Term Plan in due course. The significant urban expansion and integrated development planned for this area, and recorded in the CDP and Framework Report, is broadly aligned and consistent with the spatial plan that the Council is currently preparing for its urban settlements. The CDP modelled scenario includes recognition of short-term energy supply issues with various sustainable options including a proposed biomass energy plant and potential for solar power to supplement energy provision. The Food Producer activity has signalled an intention to achieve security of power supply through provision of independent biomass or similar energy plants on site.

Policy 3-2: Adverse effects of other activities on infrastructure and other physical resources of regional or national importance

The Regional Council and Territorial Authorities must ensure that adverse effects on infrastructure and other physical resources of regional or national importance from other activities are avoided as far as reasonably practicable.

The proposal has achieved this through liaison with KiwiRail to develop a design and concept for operation of the perpendicular siding that meets the community needs and KiwiRail health and safety and network efficiency requirements. In the design phase liaison will occur weekly with KiwiRail to ensure efficient design and interface issues are addressed appropriately.

Liaison with Waka Kōtahi NZ Transport Agency (**Waka Kōtahi**) is ongoing, and review of the TIA by Waka Kōtahi along with discussions about timing and design for upgrades to the SH1 intersection are at an early stage.

Liaison with Powerco as the primary power supply company in the Rangitīkei District is well underway. Individual developers have been providing information directly to Powerco as required, and this has been facilitated as required by Council.

Chorus has confirmed that supply of fibre ducting and cabling can be provisioned to share either of the water supply trenching options initially explored.

Liaison with all infrastructure service providers will continue as detailed design of infrastructure services progresses following resolution of the Plan Change appeal.

Policy 3-4 The strategic integration of infrastructure with land use

Territorial Authorities must proactively develop and implement appropriate land use strategies to manage urban growth, and they should align their infrastructure asset management planning with those strategies, to ensure the efficient and effective provision of associated infrastructure.

The design investigations to establish an appropriate CDP for infrastructure services has established a significant list of upgrades to the Council's existing three water and roading assets as well as upgrades to the state highway network.

Such works within the development site will be funded by the developer, all other works are now being prioritised and will be included in future Council Long Term Plans and Waka Kōtahi asset management plans as required.

This is a key benefit of the CDP process, being the identification of essential works across a strategic growth area rather than default to ad hoc just-in-time development led upgrades. This enables efficiencies to be achieved for the community through the spreading of upgrade costs across time and multiple developments.

Policy 3-5: Urban growth and rural residential subdivision on versatile soils

In providing for urban growth (including implementing Policy 3-4), and controlling rural residential subdivision ("lifestyle blocks"), Territorial Authorities must pay particular attention to the benefits of the retention of Class I and II versatile soils for use as production land in their assessment of how best to achieve sustainable management.

The Soil Survey in Appendix A identifies the land proposed to be rezoned from Rural to Industrial is Class III being less versatile for use as production land, though still serviceable for general rural productive purposes. The proposed rezoning for industrial growth and the consequent loss of this land for rural production is consistent with the intent of Policy 3-5 to focus urban growth on land that is Class III or higher in order to avoid loss of Class I and II versatile soils.

4.1.3 NATURAL HAZARDS

Objective 9-1: Effects of natural hazard events

The adverse effects of natural hazard events on people, property, infrastructure and the wellbeing of communities are avoided or mitigated.

The proposed design of stormwater management will ensure overland flood flows beyond the CDP site are enabled to follow as natural a path as possible, whilst ensuring that flows within the CDP site are directed to an appropriately sized stormwater retention pond. Hydrologic neutrality will be achieved throughout the design of a comprehensive and integrated stormwater system for the CDP site.

4.2 HORIZON ONE PLAN CONSENT REQUIREMENTS

Resource consents will be sought to address the regional plan considerations for each activity and for the works associated with the detailed design of infrastructure services construction.

4.3 RELEVANT IWI PLANNING DOCUMENTS

No iwi planning documents that should be taken into account have been identified. Te Rūnanga o Ngā Wairiki Ngāti Apa has been an active partner in the project to establish the Marton Rail Hub. Direct engagement is ongoing in relation to the design of infrastructure services, cultural representation, landscape and amenity considerations.

4.4 RANGITĪKEI DISTRICT PLAN

Rule B5 requires information to be submitted with the CDP to demonstrate consistency with the objectives and policies of the District Plan. The relevant objectives and policies are within sections A1 Built Environment, A2 Natural Environment, A4 Hazards, and A5 Infrastructure. Identified below are the relevant objectives and policies along with a discussion that demonstrates the proposal's consistency with them.

A1 BUILT ENVIRONMENT

Objective 1:

Promote urban areas with highly regarded amenity values that reflect the character of each township and provide nice places to live.

The mitigation measures recommended by the LVA, Lighting Impact Statement, Construction Management Plan, TIA and Ecological Report (attached to Part B of this Framework Report) all

provide ways in which amenity values of the surrounding area will be maintained as the CDP area is developed.

Relevant policies under section A1 are A1-1.1, A1-1.3, A1-1.4, A1-1.5, A1-1.6, A1-1.7 and A1-1.10. The policies and CDP's consistency with them is discussed below:

• **Policy A1-1.1:** Enable a wide range of activities, appropriate to the character and amenity of each settlement and neighbourhood.

The CDP process provides for a range of appropriate industrial activities to occur within an identified development area which fits with the character and amenity of the surrounding environment. The CDP prevents ad hoc industrial developments at various locations around the district and encourages the consolidation of development within an identified appropriate zone.

• **Policy A1-1.3**: Require provision of on-site car parking and loading spaces to meet the predicted demand for each activity.

The modelled scenario for the CDP site and associated technical reports, including the TIA, identifies the likely demand and traffic associated with each activity. Implementation of preferred Option Two and the CDP therefore ensures car-parking and loading spaces are provided.

• Policy A1-1.4: Set acceptable noise limits for each zone.

The Acoustic Assessment attached as Part B - Appendix D has concluded that the noise and vibration levels likely to be generated by the modelled activities will be reasonable, given the noise profile and character of the existing environment which comprises the NIMT and SH1.

• **Policy A1-1.5:** Avoid, remedy or mitigate any adverse effects on residential properties and road safety caused by inappropriate night lighting or light glare.

The Lighting Impact Statement attached as Part B - Appendix E concluded that light spill and glare would be mitigated to be less than minor. It states that the distance of residential dwellings from the CDP site means adverse effects are unlikely, and the implementation of screening, professional lighting design, and other mitigation measures will ensure adverse effects on the national and local road networks are less than minor

• **Policy A1-1.6**: Ensure that any storage of goods, material or waste products is contained within individual sites without detracting from the visual amenity of the environment.

Identification of the storage requirements for goods, materials and waste has been included within the modelled scenario for each activity within the CDP site. Additionally, the LVA attached as Part B - Appendix F states that through mitigation screen planting and vegetation site enhancement, visual landscapes effects will be not more minor.

• **Policy A1-1.7:** Within the Commercial and Industrial zones, enable the display of advertising signs that do not detract from the amenities within that zone.

The CDP site allows for the consolidation of complementary activities within a centralised area, which in turn will likely provide for the display of advertising signs which are complementary to, and do not detract from, the industrial character of that area or any other amenities within that zone.

• **Policy A1-1.10**: Avoid development of sensitive land that compromises the safety and efficiency of the District's Strategic and Arterial land transport networks, including the rail network.

The overall objective of the development of the CDP site is to improve the strategic efficiency of the rail network, and the proposal has been developed in liaison with KiwiRail to meet its health and safety and network efficiency requirements Additionally, the TIA (refer Part B - Appendix G) identifies key mitigation measures to support the safe and efficient operation of the transport network, and will be implemented via Stage One of the CDP site development process.

Objective 5 and 5A in Section A1 relate to industrial activities. Objective 5 states that "Industrial activities are sited in appropriate locations and their effects managed where these are significant". Objective 5A is to:

Enable large-scale industrial activities to take advantage of the strategic location of the roading and rail networks at Marton, adequately serviced by infrastructure, with adverse effects avoided, remedied or mitigated to protect the amenity values and quality of the environment.

Comment

The Marton Rail Hub is predicated on the opportunity to capitalise on the proximity of SH1 to the NIMT at Marton. The reoriented Industrial Zone (CDP site) is located adjacent to the existing Marton industrial area where infrastructure services can be readily extended to efficiently provide for future growth and development at the CDP site. The design and investigation to inform the CDP layout will ensure integrated and efficient service provision. The technical assessments have established the level of adverse effects likely to be generated in the surrounding area, and recommended actions to avoid or mitigate such effects to maintain amenity values and quality of the environment. Relevant policies are A1-5.1 and A1-5.3. These policies are outlined and discussed below:

- **Policy A1-5.1**: Contain industrial activities principally within the Industrial Zone to manage environmental effects, permit industrial activities in other zones where effects are minor, and enable industrial activities associated with primary production in the Rural Zone;
- **Policy A1-5.3**: Maintain connection between industrial activities and key road and rail corridors in the District.

Policies A1-5.4 and A1-5.5 were inserted as part of the Plan Change decision on submission and are of particular relevance, given they relate directly to the CDP site.

- **Policy A1-5.4:** Control the development and use of the Industrial Development Area* to ensure:
 - i. The structured and well-integrated development and use of the site;
 - ii. Any actual or potential adverse effects of the use and or development are controlled to maintain the amenity values and quality of the local environment; and
- iii. Adverse effects from uncoordinated development are avoided.

Comment

Matters i, and iii are addressed by implementation of the CDP and are no longer necessary. A1-5.4 matter ii is a restatement of Objective 5A. Policy A1-5.5 as proposed to be amended can be relied on instead. Implementation of the CDP will be the primary method to achieve this policy.

- Policy A1-5.5: In the Industrial Development Area*:
 - i. Adverse effects (including but not limited to emissions, particulate matter, noise and vibration, odour, lighting and glare, building bulk dominance and shading) generated from activities shall be avoided, remedied and or mitigated to maintain the amenity values of the Rural Zone.
 - ii. In considering applications for industrial activities, a precautionary approach must be taken to minimise the potential adverse effects of noise, vibration, and dust and other particulates in the air on sensitive land uses in the Rural Zone.
 - iii. Adverse effects on the amenity values of the Rural Zone shall be managed by:
 (a) Avoiding significant adverse effects beyond the boundary of the Industrial Development Area; and
 - (b) Otherwise, minimise other adverse effects to protect the amenity of the Rural Zone.

Comment

Matter i; will be addressed by implementation of the CDP, any future development within the Industrial Development Area would require a resource consent and would need to be in accordance with the CDP. This will ensure a precautionary approach is applied and potential effects avoided or mitigated.

A4 HAZARDS

Section A4 relates to hazards including natural hazards, hazardous substances and contaminated land. Objectives 17 and 18 are of particular relevance.

Objective 17:

The adverse effects of natural hazards on people, property, infrastructure and the wellbeing of communities are avoided or mitigated.

Objective 18:

Storage, use, containment, and transportation of hazardous substances is carried out in a manner that protects the environment from adverse effects, such as contamination, toxic discharge and pollution.

Comment

The site is not identified in the RDC or HRC maps as subject to any natural hazard risk. The CDP site is positioned in excess of the Faultline setback standard discussed previously. A Preliminary Site Investigation has been completed which confirmed that the site has not been used for any HAIL activities. There is no information to suggest this is a contaminated site. Refer to Appendix D.

A5 INFRASTRUCTURE

Section A5 sets out objectives and policies relating to infrastructure including network utilities and transport.

Objective 21:

Protect the safety and operation of network utilities from the adverse effects of other land use activities.

Relevant policies are A5-1.6, A5-1.7, A5-1.11, and A5-1.12, which are discussed below:

- **Policy A5-1.6**: Ensure the safe operation of critical infrastructure and network utilities by ensuring that appropriate separation distances are maintained.
- **Policy A5-1.7:** Ensure that subdivision, use and development does not compromise the ability of network utilities to function.

Policy A5-1.11 is of particular relevance given it relates to the establishment and operation of the Industrial Development Area.

• Policy A5-1.11: In the establishment and operation of the Industrial Development Area*, adverse effects on the safe and efficient operation of critical infrastructure are avoided by ensuring that any required upgrades to infrastructure are functional prior to the increased demand on infrastructure being realised. Policy A5-1.12: The development of the Industrial Development Area* must be planned in a comprehensive and structured manner, ensuring an integrated approach to the provision of infrastructure, and enabling on-site sustainable servicing solutions.

Comment

Adverse effects on the safe and efficient operation of critical infrastructure and provision of infrastructure and servicing have been addressed by the CDP.

Any future development within the Industrial Development Area would require resource consent and would need to demonstrate that it is in accordance with the CDP.

Network utilities and provision of onsite servicing has been described in section 3.1 of the CDP Framework Report along with the rationale for the layout and provision of services as proposed. Retaining these policies in the Plan would, potentially lead to multiple re-litigation of provision of services which is not reasonable, necessary or practical especially once the infrastructure services are established as proposed in Stage one of CDP development.

It is anticipated that the CDP will be finalised and then incorporated into the District Plan as part of the resolution of the outstanding appeal.

Regarding Transport objectives and policies in section A5, **Objective 23** states:

Ensure that the safety and efficiency of the existing transportation network is maintained, and that additions to the network complement the existing network.

In terms of relevant policy these are listed below along with a discussion of the CDP's consistency with them:

- **Policy A5-3.2**: Recognise the importance of maintaining the safety and efficiency of the District's Strategic and Arterial land transport networks, including the rail network.
- **Policy A5-3.4**: Require satisfactory sight lines for vehicles at railway crossings, at intersections and at property entrances and exits.
- **Policy A5-3.5**: Require the provisions of the Council's Subdivision and Development Code of Practice to be met when designing new roads^.
- **Policy A5-3.6**: Avoid development of sensitive land that compromises the safety and efficiency of the District's Strategic and Arterial land transport networks, including the rail network.
- Policy A5-3.7: Vehicle access into and out of the Industrial Development Area* maintains the safety and efficiency of the local roading network, with heavy vehicle access restricted to Makirikiri Road only.

Comment

Vehicle access into and out of the area has been investigated and identified in the CDP. The roading layout is based on parameters including maintaining the safety and efficiency of the local roading network.

All heavy vehicles will access the CDP site at the main entrance. Some heavy vehicles may also leave the CDP site via a secondary road located at a safe distance from SH1.

All vehicle access to the CDP site will be restricted to Makirikiri Road only. No access directly to SH1 will be provided.

As the roading network within the CDP site and intersections with Makirikiri Road will be constructed as Stage one of the CDP development, this provides certainty that Policy A5-3.7 will be implemented and once built the policy is redundant.

4.4.1 CONSISTENCY WITH OBJECTIVES AND POLICIES – SUMMARY

Relevant objectives and policies are contained within sections A1, A2, A4, and A5 of the RDP. These have been identified and discussed above. Based on these discussions, the CDP is considered to be consistent with the relevant objectives and policies.

4.5 CONSULTATION AND AFFECTED PARTIES

The Plan Change process has identified parties affected by the rezoning of the land for industrial purposes. The process to resolve the appeal, particularly the evaluation of potential effects of the modelled scenario, provides clarity around the potential effects and enable mitigation measures to be applied to the CDP infrastructure planning in the first instance.

Each proposal for an industrial activity will likely be assessed via the resource consenting process, against the CDP framework and this includes an assessment of those who may be potentially affected in accordance with section 95 of the Act.

APPENDIX A - SOIL SURVEY



Memorandum

То	Brenda O'Shaughnessy
Сору	
From	Tabitha Manderson
Office	Palmerston North
Date	2 July 2021
File/Ref	5-WT696.00
Subject	Marton Rail Hub - Soil Description

Introduction

The purpose of the memorandum is to present the results of a soil survey undertaken on the Marton Rail Hub site. A project is currently underway looking at development of the site as a Rail Hub. A soil survey was requested to confirm the soil type on the subject site.

Methodology

A site visit was undertaken on 24th March 2021. Site conditions were dry, and no significant rainfall in the area recorded in preceding weeks.

Initially several profiles were exposed, with spade and auger, and the profile was logged. Soil to approximately 1.2m depth was excavated with an auger. Observations were made to the west and north-west of the subject site.

Description was recorded, in general accordance with Milne et al (1995) and photographs were taken.

An area was exposed from geotechnical investigations on the site, this was examined to compare to the representative profile.

Aerial assessment of the wider set was undertaken, with a number of historical aerial images examined.

General Description

The subject site was generally flat, with gently rolling terrace. A number of overland flow paths are noted in the wider site (as identified from aerial photography).

Topsoil was a generally friable silt loam, moderately developed, exposed subsoils strongly gleyed, multiple distinct mottles. Parent material weathered loess.

Perch-gley pallic soil observed.



Soil Profile Description

0-20cm	Silt loam Dark greyish brown Friable, medium and nut structure Distinct boundary	
20-45cm	Clay loam Light greyish brown Strong brown mottles Quite sticky and plastic Blocky structure Wavy boundary	



Discussion

Based on the observations the soil type is considered to be Marton silt loam across the entire subject site. A discrete area was observed where a small layer of sand was exposed at approximately 25cm, this was adjacent to the small stream and only two observations were encountered. It was not of sufficient size to be considered a separate soil type (see photo in

Appendix). Discrete areas with higher stone content would be encountered across the wider site, but were not exposed during the onsite observations. This is in-keeping with existing soil survey information available for the site (NZLRI soils data).

A description of the characteristics of Marton silt loam from J.D Cowie 1974.

The compact and heavy textured subsoil o Marton silt loam slows downward movement of water through the soil. As a result, this soil lies very wet in winter, subsoils become very sticky and water lies on the surface for short periods. In summer it dries out and cracks and the subsoil becomes very hard.

The topsoil of Marton silt loam is very low in plant-available phosphorus, low in potassium, and medium in calcium. The reserves of potassium are very low. The percentage base saturation is medium in the topsoil and drops slightly in the subsurface horizon but increases again in the lower part of the subsoil.

Pasture responses to phosphates, potash and lime have been recorded on this soil in field trials laid down by the Ministry of Agriculture and Fisheries. Present land use is mainly fat-lamb farming with some dairying. Apart from the need for fertilisers the main limitation in this soil is its poor drainage but this can be overcome to a large extent by artificial drainage using tiles or moles.

Because of its wide moisture variations, poor subsoil structure, and difficulty of cultivation for a large part of the year, Marton silt loam is not considered suitable for intensive cropping, market gardening, nurseries or orchards. However, it would be suitable for annual cropping of cereals.

The NZ LUC handbook was updated in 2009 and included national LUC mapping standards and LUC class, LUC subclass and LUC criteria.

Based off the site observations and the soil assessment a LUC classification of the proposed site has been deemed to be a class 3. Key reasonings behind this classification assessment are listed below.

- The high proportion of clay within the profile. A clay textured soil is unfavourable soil characteristic for class 1 and 2 land but can appear in class 3 land.
- Wetness of the soil and the fact that even with drainage significant waterlogging would still remain.
- The fact that the soil remains waterlogged, limits the versatility of the land. Moderate limitation to arable land uses that would restricting the choice of crops and the intensity of cultivations.

A number of soils previously classified as Class 2 soils are now reclassified as Class 3 soils. Marton silt loam is included in this reclassification due to limitations of poor drainage and compact subsoils with poor physical structure (Harmsworth, 2009).

From Wilde (2003) in reports commissioned by Palmerston North City Council: The land on which Milson and Marton soils occur is not considered by Landcare Research land resource scientists as 'high class' land because the soils do not meet the required cireteria, despite the land earlier being classified as LUC unit 11c2 during land-use capability work in the Manawatu Region. Land-use capability work in the Wellington Region classifies similar land as LUC Class III. There are several good technical reasons to reclassify land occupied by Milson and Marton soils as Class III land.

For Marton silt loam previously classified under the Old NZLRI LUC as 2s2 under the new LUC handbook now classified as 3s04.

References

J.D Cowie 1974 Soils of Palmerston North City and Environs.

G. Harmsworth, 2009, Horizons Regional Council LUC GIS database and mapping.

Appendix



Photo – profile exposed in pit



Photo – sand layer

APPENDIX B - PRELIMINARY SITE INVESTIGATION



Memorandum

То	Brenda O'Shaughnessy
Сору	
From	Melanya King and Christopher Bergin (SEQP)
Office	Whanganui
Date	12 August 2021
File/Ref	5-WT696.00
Subject	Preliminary Site Investigation

Marton Rail Hub

WSP has completed a preliminary site investigation (PSI) and screening assessment for the Marton Rail Hub with respect to the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (the 'NES').

The site is proposed to undergo earthworks for foundations, access and underground services to facilitate construction of:

- a food processing facility,
- a log yard,
- biodegradable plastics and packaging plants, and
- associated smaller service businesses and
- three water and roading infrastructure services.

Because the proposed activity requires earthworks to occur on site, regulation 5(4) of the NES is triggered. The purpose of this assessment is to determine if an activity has, had or more likely than not had occurred on the piece of land that may result in soil contamination. A list of these activities are outlined in the Hazardous Activities and Industrial List (HAIL)¹.

The regulations allow two methods to determine whether an activity described in the HAIL has or is occurring. We have chosen the method outlined in regulation 6(2) of the NES which is to use information available from the local authorities and from current and previous landowners. On this basis we have completed a PSI.



¹ Hazardous Activities and Industrial List: Ministry for the Environment: Oct 2011

1.1 The Site

The subject site address is 1091 State Highway 1, Marton. The site is legally described as

- Lot 1 DP 497482 being 0.8615 hectares
- Lot 2 DP 497482 and Part Lot 4 6 Deeds Plan 25, being 94.2396 hectares
- Part 4-7 Deeds Plan 25A, being 9.1060 hectares
- Lot 1 DP82685 being 7.2670 hectares

Approximate total site area is 111.4741 hectares.

The site is relatively flat and low lying (Figure 1). The site is bordered on the west by the railway and the east by State Highway 1 (Figure 2). Access to the site is currently off Wings Line and State Highway 1 in Marton. It is part of a wider farming unit that extends to Wings Line. The site contains one dwelling and is dominated by pastoral land, with some shelter belts of pine, macrocarpa and eucalyptus. Within the subject site there are also 3 streams (Figure 3). The current landowner has owned the farm for the last 40 years and has stated that he is not aware of any hazardous substances being stored on the site.



Figure 1: Site photos showing shelterbelts and existing crops.

NES Permitted Activity threshold	1) 111ha/500m² =2200
volumes for 1) disturbance, and 2) yearly	2200* 25m3 = 55,500m ³ .

off-site movement of soil based on the	Expected earthworks volume is	
approximate site area	200,000m ³	
	2) No soil to be moved off site	
Territorial Authority	Rangitikei District Council.	
Current Site Use	Rural	
Proposed Site Use	Industrial	
Adjoining Sites Uses	Rural activities of cropping NI Maintrunk Line Railway & State Highway 1.	
Topography	The site is generally flat and low-lying.	
Site Observations:	Site Photos taken during this inspection are presented in Figure 1.	
Flood Potential:	The site is not identified as being within	
	any flood risk areas on the RDC or	
	Horizons Regional Council maps.	
Visible Contamination Sources:	During the visit to site, no potential	
	contaminants were observed on the site.	
Odours:	None noted.	
Surface Water:	No water ponding was noted at the site.	
Vegetation stress	Vegetation at the property did not show	
	any evidence of stress or die off. Site visits	
	were completed for both the ecological	
	assessment and landscape assessment.	
Surface Water Bodies	The closest waterbodies are two	
	unnamed tributaries of the Tutaenui Stream (refer Fig 3) Stream 2 being	
	approximately 70m east of the old dump	
	site and Stream 4 being adjacent to the	
	offal pit.	

Marton Rail Hub



Figure 2: Location of the subject site (green boundary) and development area (black boundary & green hatched area) in relation to the surrounding environment.





Figure 3: Location of streams and vegetation types present at the subject site.

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wsp

1.2 The Activity

The development of the Marton Rail Hub on the outskirts of Marton, (adjacent to Makirikiri Road and within an area bounded by State Highway I and the Main Trunk Rail Line) will set up Rangitīkei District as a key logistical hub for the forestry industry across the Lower North Island.

Industrial development will potentially cover approximately 62ha of land within the wider subject site as highlighted in Figure 3 above.

1.3 Potential HAIL activity assessment

The site has only ever been farmed with the exception of an existing haybarn which will be removed in the near future.

This property has predominantly been used for cropping and was owned by the previous landowner for the last 40years.

There is an unused offal pit located in the back trees and an old dump site by the gum trees.



Figure 4: Location of offal pit and old dump site as drawn by the landowner

The offal pit has not been used for some years and according to the landowner was only about $50m^3$ when dug and *no larger than a small kitchen table say 6m x4m*".

The landowner advises that the rubbish dump was used for burning household rubbish more along the line of paper, cardboard and farm only greenwaste. The rubbish was regularly burnt and the dump has not been used for many years.'

1.4 Aerial Photos

Aerial photos of the site show the haybarn, and possible open ground corresponds to the identified location of the offal pit and dump site areas at this site in c2004. Neither an offal pit nor dump site is visible in the C2005 and c2010 aerial photos. Evidence of a cropping history is

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evident in all historic areas viewed back to 1985. There is no obvious evidence of either the offal pit or dump site in any photos.



Figure 5 – 1985 Google Earth Image



Figure 6 – Feb 2005 Google Earth Image



Figure 7 – April 2010 Google Earth Image.



Existing haybarn to be removed

Figure 8 Location of existing haybarn – July 2020 Google Earth Image

The site has been used for cropping (barley, wheat, maize, corn, peas, canola, oats, tricale, kale, pasja, rape feed, grass seed and turnips), super phosphate, urea and cropping fertilisers have been used on this site. The owner has stated that no agrichemicals have been stored on the site and the site has never been used for pesticide/fertiliser manufacture, livestock dip/spray race operations or skin or wool processing.

The landowner also stated that he has not undertaken any pesticide spraying on site.

Nothing in the historic photos indicates any reason to expect storage or manufacture of agrichemicals or pesticide fertiliser manufacture. The photos corroborate the information from the landowner about cropping history. There is also no evidence of animals grazing identified in the photos and this corroborates the landowner statement that there has been no animal grazing, thus no reason to have had livestock dip or spray race operations. There is no indication of additional sheds that might have been used for the above purposes either. *Table 1: Summary of potential HAIL activities identified*.

Hail Code	Description	Comment
Al	Agrichemicals including commercial premises used by spray contractors for filling, storing or washing out tanks for agrichemical application.	Super phosphate, urea and cropping fertilisers have been used on this site. No agrichemicals have been stored on the site
A6	Fertiliser manufacture or bulk storage	Not undertaken at the subject site.
A8	Livestock dip or spray race operations	Not undertaken at the subject site.
A13	Petroleum or petrochemical industries including a petroleum depot, terminal, blending plant or refinery, or facilities for recovery, reprocessing or recycling petroleum- based materials, or bulk storage of petroleum or petrochemicals above or below ground.	Not undertaken at the subject site.
A17	Storage tanks or drums for fuel, chemicals or liquid waste	Not undertaken at the subject site.
F6	Railway yards including goods-handling yards, workshops, refuelling facilities or maintenance areas	There are no railway yards on the subject site.

Horizons Regional Council has confirmed that their Sites Associated with Hazardous Substances database does not contain any site records for the proposed project area. Rangitīkei District Council has also confirmed that their HAIL database does not contain any site records for the proposed project area.

1.5 Conclusion

The site identified within this investigation has been triggered under the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NES) as a result of the proposed land disturbance. Site history, anecdotal evidence, historical aerial photography and site inspections have identified no evidence of HAIL activities at the subject site.

On this basis, it is not likely that an activity or industry described in the HAIL is being or has been undertaken on the subject site.

This land does not fall within the criteria in Regulation 7 for land covered by the NES, therefore the NES does not apply to the subject site.

