# **Infrastructure Report**

# Woodend South – Urban Estates Ltd

# Woodend Beach Road, Woodend

# **Rezoning under the Proposed Waimakariri District Plan** 21202

March 2024





Shaping the future since 1880

## **Revision History**

Rev Number:	Prepared By:	Description:	Date:

## **Document Control**

Action:	Name:	Signed:	Date:
Prepared By	Andy Hall	MACUI	15/2/2024
Reviewed By	Jamie Verstappen		15/2/2024
Approved By	Andy Hall	11 JUL	15/2/2024

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## 1. Executive Summary

This report assesses servicing of the proposed Woodend South development area south of Petries Road in Woodend. This report addresses the availability of infrastructure for the purposes of a submission on the Proposed Waimakariri District Plan seeking that the land is rezoned from its current Rural Lifestyle Zoning to Residential with an estimated 500 lots at a density of approximately 15 households/hectare.

Council has confirmed that the land is within the infrastructure limits shown in the 2008 Structure Plan Reporting, and is within the Projected Infrastructure Boundary contained in the Council's Infrastructure Strategy 2018-2048.

Water Supply – Initial connections will be made to the existing infrastructure but planned upgrades will be required including a new pipe connection from the Chinnerys Road Facility to the site.

Wastewater – discharges from development of the land will connect directly to the Woodend Treatment Facility. Upgrades will be undertaken at the plant as prescribed by the WDC Activity Management Plan. The new infrastructure within the proposed development will be either Local Pressure System or gravity with a pump station.

Stormwater – The proposal will include a facility on site to attend to the treatment and attenuation of stormwater. The area to the east of Macintoshes Drain will connect to existing WDC facilities. These existing basins will be extended to suit the additional catchment. Consents for stormwater discharges will be required from Environment Canterbury in agreement, a process which will involve engagement with the WDC.

Power – To be provided by Mainpower.

Telecommunications - Expected to be provided by Chorus or Enable



### 2. General

### 2.1. Introduction

This infrastructure report addresses the servicing of the proposed rezoning of land south of Petries Road in Woodend. Please refer to the proposed Outline Development Plan (ODP) in **Appendix C**. It is proposed to divide the approximate 32.9ha hectare group of properties into approximately 500 residential lots. Primarily this report will address viable options for Water Supply, Stormwater, Wastewater, Power and Telecommunications. A review of the potential flooding over the site will also be investigated.

Council has confirmed that the land is within the infrastructure limits shown in the 2008 Structure Plan Reporting. The land is within the Projected Infrastructure Boundary contained in the Council's Infrastructure Strategy 2018-2048.

This area has also been identified in the Waimakariri District Development Strategy (DDS) 'Our District, Our Future – Waimakariri 2048', which guides the District's anticipated residential and business growth over the next 30 years.

A submission for the potential rezoning of this land has been made to the Waimakariri District Council by Woodwater Limited. Woodwater is working in partnership with Urban Estates Limited (UEL) who have acquired an interest in a number of the properties illustrated in Appendix 1 to the Woodwater submission. UEL has also acquired an interest in a property to the immediate south of the land which is zoned Large Lot Residential.

A geotechnical assessment report has been completed by Engeo Ltd and that report is to be included with all documentation supporting the proposed rezoning. The report has shown that the site is suitable for residential development with some provisos.

Key points observed in the Geotechnical Report include:

- 1. Soils generally sands and silt
- Groundwater levels between 1.1m and 6.5m below ground level across the site. Nearby ECAN wells (M35/0546) suggest that groundwater seasonally fluctuates between 2.3 m and 3.7 m.
- 3. Liquefaction induced ground settlement may occur, with the possibility of lateral spread towards buried stream channels. The site is considered Technical Category 2 (TC2). A full assessment of potential lateral spreading needs to be undertaken as part of the design process but this will be able to be controlled.
- 4. Presence of potentially compressible near surface soils which may pose a consolidation settlement risk to any proposed development. Further investigation is required but these effects will be easily mitigated through standard site compaction practices.

A Preliminary Site Investigation for Contamination has also been completed by Engeo. There are a number of areas that require testing, and it is expected that there will be HAIL level contamination on site. It is expected that any contamination found on site will be removed to a licenced fill. A Detailed Site Investigation will be completed as part of a future subdivision resource consent application.

An Ecological Report has been completed on the site by Aquatic Ecology Ltd (AEL). Their investigation found two wetlands on the site. Both are considered to be of very low value, and it has been recommended that they be abandoned in favour of the preservation and enhancement of a more highly valued wetland to the south. The wetland to the south is on the Large Lot Residential zoned land acquired by UEL.



The design and construction of the proposed sub-division infrastructure will comply with the requirements the WDC standards or the Building Code.

It is anticipated that the density of the development will be affected by a general expectation that houses should be more dense in the future. Whilst the actual density will be fully considered as part of a plan change, a density of at least 15 homes per hectare is deemed appropriate for this assessment and is consistent with the minimum yield anticipated by the Proposed Plan for greenfields land.

Consultations have been undertaken with Council Officers Kelly LaValley, Jennifer McSloy and Chris Bacon and it is from their advice that this assessment has been formulated. Please refer to **Appendix G** for records of those consultations.

## 2.2. Site

Please refer to the attached Aerial Photograph in **Appendix A**.

The site is utilised as grazing and lifestyle blocks.

The northern and western areas of the block is in flat pasture.

The eastern end of the site is dominated with undulating sand dunes with small pockets of hollowed out tarn like areas that sometimes hold water. There is a large tarn on the southeast boundary. Anecdotal evidence from the farmers suggests that the tarn holds water for approximately three months a year. The Ecological Value of this Tarn is addressed in the Ecological Report.

Along the northern boundary, and part of the western boundary is land zoned Medium Density Residential under Variation 1 to the Proposed Plan. The recent Copper Beech Large Lot Residential development lies to the east and there is further undeveloped LLRZ land to the south at 320 Woodend Beach Road. The remainder of the western side of the site fronts onto Woodend Beach Road. This connects to State Highway 1 at the edge of Woodend.

There are existing houses and sheds on the site that are not considered significant in terms of heritage. All buildings will be removed during development. This includes a large assortment of derelict vehicles that have been recently moved onto the land at 62 Judsons Rd

There are exotic trees across the site that will be removed. The only significant vegetation on the site to be maintained will be associated with the preservation of wetlands and the waterway.

McIntosh's Drain flows along the eastern site of the site. This will be maintained and protected. The drain has been partially naturalised as part of the Copper Beach Development. The completion of the naturalisation will occur with this proposal.

The site grades to the southeast and it is expected that, following earthworks on the site, a safe gradient along roads will be able to be constructed to allow secondary flood flows to be safely conveyed through the site to reach the Drain at the intersection with Woodend Beach Road.



## 3. Water Supply

Existing watermains adjacent to the site include:

- a) a 100mm dia PVC pipe at the western end of Judsons Road
- b) a 150mm dia uPVC pipe along Petries Road
- c) a 150mm dia uPVC pipe along Copper Beach Road

WDC have a water supply strategy for the next 50 years that includes for the land proposed in this submission. Please refer to the attached WDC Water Strategy Plan in Appendix D.

With reference to the Activity Management Plan 2021 - Woodend-Pegasus Water Supply Scheme, demand on the Woodend-Pegasus water supply scheme is expected to increase by 60% between the July 2019 rates strike base year, and year ten of the 2021-31 Long Term Plan (LTP). This projection is based on:

- 1. 822 new connections from Ravenswood during the 2021-31 LTP period as identified as part of the 2020 WDC 50 Year Water and Sewer Connection Growth Forecast Work
- 2. 282 new connections from in Pegasus township during the 2021-31 LTP period as identified as part of the 2020 WDC 50 Year Water and Sewer Connection Growth Forecast Work
- **3.** 438 new connections from East Woodend and Woodend Beach during the 2021-31 LTP period as identified as part of the 2020 WDC 50 Year Water and Sewer Connection Growth
- 4. 400 new connections in the Tuahiwi area, developing over the next 50 year period as identified as part of planning development work.

It is expected that the site is included in item 3. The Strategy shows a new pipe being laid from the Chinnerys pump station, along State Highway 1 and then into Woodend Beach Road and past the site. There may also be some residual capacity in the existing water infrastructure.

WDC has been consulted in regard to water supply and the potential roll out of the network into the Site to accommodate the Proposal. Consultation was carried out with Council Officers Jennifer McSloy and Chris Bacon.

- a. There may be some immediate capacity in the existing network but this is very limited.
- b. There are all the necessary upgrades in the LTP for the servicing of this site. These upgrades can be brought forward to meet development demand.
- c. WDC would expect the development to provide a main link pipe through the site from Petries Road to Woodend Beach Road. Min dia 150mm(ID).
- d. Water Supply DCs may be reviewed as a result of the upgrades.
- *e.* The supply of water should not be an inhibitor to the zoning of this site into residential.

Whilst the Strategy Plan provides for the roll out of the upgrades to the pump station and pipework over the next 15 years, the Developer may negotiate with WDC to undertake the work on their behalf and be reimbursed as funds become available.

It is projected that the Proposal will provide approximately 500 residential sections. The peak hourly flow per dwelling is estimated to be 0.1l/s, meaning the peak domestic demand for the development this will equate to 50l/s.

The developer shall need to design the water supply system to satisfy the following WDC criteria:



- (a) Fire flow plus 50% of the peak hourly flow with a minimum residual pressure of 100 kPa during a fire event. For hydrants and for Residential Zone allotment lateral connections, this total flow = 25l/s + 25l/s = 50l/s.
- (b) Peak hourly domestic flow with a minimum residual pressure of 300 kPa and minimum flow of 20 L/min at the point of supply.
- (c) Peak hourly domestic flow with a minimum residual pressure of 250 kPa and minimum flow of 15 L/min at each property.
- (d) Minimum domestic flow case with a maximum static pressure of 850 kPa at the lowest elevation in the supply area.
- (e) Appropriate working, emergency and fire-fighting storage.

From this we can determine that a new well on the Site will be required to provide 100l/s maximum flow plus some contingency. An appropriate provision would be 20%, equating to 120l/s Peak Flow.

In terms of the daily demand volumes as opposed to peak flows, the WDC Engineering Code of Practice does not provide any advice, but the Asset Management Plan provides historic data from the Pegasus System on Table 2. That data is as follows:

- (a) Average Daily Flow per Connection = 645 l/connection/day.
- (b) Peak Daily Flow per Connection = 1803 l/connection/day.

For 500 lots, this equates to an annual flow of 500 x 365 days x 645 litres =  $117712.5^3$ . Adding a 20% contingency to this makes the estimated Annual Flow =  $141,255m^3$ .

The peak daily flow for 500 lots would be 500 x 1803 litres = 901.5m<sup>3</sup>. Adding a 20% contingency to this makes the Peak Daily Flow 1082m<sup>3</sup>.

The Site has an existing well and corresponding resource consent (CRC991640) permitting the Site owner to take water for irrigation at a maximum rate of take = 15.1l/s. This consent would be transferred to WDC.



### 4. Sewer

It is proposed that the wastewater from the proposed rezoning will be pumped to the Woodend Treatment Plant(WWTP). Capacity in the proposed infrastructure would include for the Large Lot Residential Zone to the south of the site. There may be some residual capacity for connection of a limited number of new sites into the existing gravity infrastructure in Petries Road and the LPS infrastructure in Copper Beech Road.

Consultation has been undertaken with Council Officers Jennifer McSloy and Chris Bacon who has confirmed that the Treatment Plant will need to undergo planned upgrades prior to there being sufficient capacity in the Plant. Their advice is as follows;

- a. There is very limited capacity in the existing adjacent wastewater infrastructure.
- b. The site may be serviced by Local Pressure Sewers(LPS) in accordance with the WDC Policies on this system but a full justification of this can only be undertaken at Subdivision consent. For now we can treat it as a possibility.
- c. If a LPS system were to be used, a pipe would be laid from the site to the WWTP.
- d. If a gravity system were to be used, a new pump or several pumps may need to be installed on site with the initial flows being directed to the existing Petries Road Pump Station. In time the delivery pipe to the WWTP will need to be upgraded and this may be as simple as adding an additional rising main from the WWTP to the corner of Gladstone Road and Petries Road.
- e. The Large Lot Residential sites to the south of the development are expected to be on an LPS system
- f. The WWTP has upgrades included in the WDC Long Term Plan. These upgrades are sufficient to cover the development of this site. The upgrades can be brought forward to meet development demand.

Using the Waimakariri Code of practice, 500 lots would create approximately 19I/s Peak Wet Weather Flow.

Please refer to the attached plan in Appendix F for potential pipe route from the site to the treatment plant.

Council Officer Jennifer McSloy has also confirmed that there are two options available for this proposals servicing network. Either a Local Pressure System (LPS) or a gravity system with a new pump station. There are a number of advantages of an LPS over an equivalent gravity network:

- (a) The LPS system will provide enough pumping impetus to get wastewater from the Site to the Treatment Plant without an intermediate Pump Station.
- (b) LPS infrastructure is installed at a shallower depth than gravity pipelines, allowing for easier and safer maintenance.
- (c) The groundwater levels are considered high and the install and eventual replacement of the LPS network is cost effective.
- (d) Peak flows are smoothed out as there is some storage in the individual pump statins at each house. This can be further controlled to attenuate flows even more.

There would be an expected reduction in stormwater and groundwater ingress when compared with a gravity wastewater network, therefore a lesser load on the Treatment Plant. The Wastewater Management Plan provides the following calculations for wastewater capacity requirements:

- (a) Average daily sewer flow = 626l/day/connection.
- (b) Peak Daily flow = 5 x 626l/day/connection = 0.0362l/s/connection.

(c) Peak Wet Weather Flow = 1382l/day/connection (expected to be less if LPS is used) = 0.016l/s/connection.

The pipe route from the south end of the site to the Treatment Plant is approximately 3km. The elevation of the treatment plant and the development site a roughly the same but the route climbs almost 4m near the centre. It is unlikely that a constant grade will be achieved and an air release valve will be required.

Maximum flows from 1500 homes would equate to approximately 18.3l/s. The average pipe flow would be 8l/s.



## 5. Stormwater

The existing gradient of the site is from northwest to southeast. As described previously, the site can be earthworked to provide secondary drainage to McIntosh's Drain where it intersects Woodend Beach Road.

Consultation has been completed and agreed with WDC Officer Chris Bacon as follows;

- a. There is no capacity in the existing Petries Road SW facility and accompanying land for stormwater off the Plan Change site
- b. The small portion of land east of Macintoshes Drain could drain to the Existing basin as long as there was an extension of the basin and land provided.
- c. The remainder of the development and the LLR zone to the south will drain to a new facility designed and consented with ECan to WDC approval.
- d. Macintoshes Drain to be preserved along with delineated wetlands yet to be determined.

All stormwater emanating from roads, berms and lots will be collected by sumps and pipes and directed to the proposed stormwater facility at the southeast end of the site or the existing WDC stormwater facility in the land adjacent to 29 Copper Beach Road. The untreated flows will drain through the site via pipework to a storage and treatment facility including for a first flush basin, storage basin and wetland. The treated and attenuated flows will be released to the adjacent Macintoshes Drain.

Note that the Stormwater Facility is located in the Large Lot Residential zone to the south of the Plan Change area. This land has been acquired by UEL.

The facility will be vested in WDC.

The stormwater facility is to be designed for the proposed ODP area and adjacent Large Lot Residential, but other areas could be included with additional funding from WDC. It is recognised that single large integrated facilities are better long-term assets for the Council rather than a number of small localised basins.

Once the designs are agreed with WDC, Discharge Consents will need to be sought from ECan by the developer. The conditions of consent will be agreed with WDC and the consents will be transferred to WDC at the end of any prescribed maintenance period.

All cut material from the construction process is to remain on site for the filling of lots, elevating them above the roads. Roads will provide the secondary overflow path for storm events greater than 2% AEP. Secondary flow paths within the site will follow the road network and reserves towards the proposed stormwater facility.

With regard to flooding, please refer to Appendix E that shows the Council DHI Model. The ponding appears to be localised with no significant channels through the site. The only significant Channel is Macintoshes Drain and that appears to be contained. There is a flooded patch shown a red lobe off the side of the drain and this is consistent with an existing wetland area in the Large Lot Residential zone that will be preserved.

Following earthworks, it is expected that all flood flows from the site will be contained within the roading network and safely transferred to the storage basins and this on to Macintoshes Drain to the south of the site. New Lots will be elevated above the road network to achieve WDC flood clearance standards.



## 6. Power, Telecommunications, and Street Lights

Mainpower have been contacted and have confirmed that they will be able to service 500 new lots in this area.

Similarly, Chorus have been contacted regarding communications and have also confirmed.

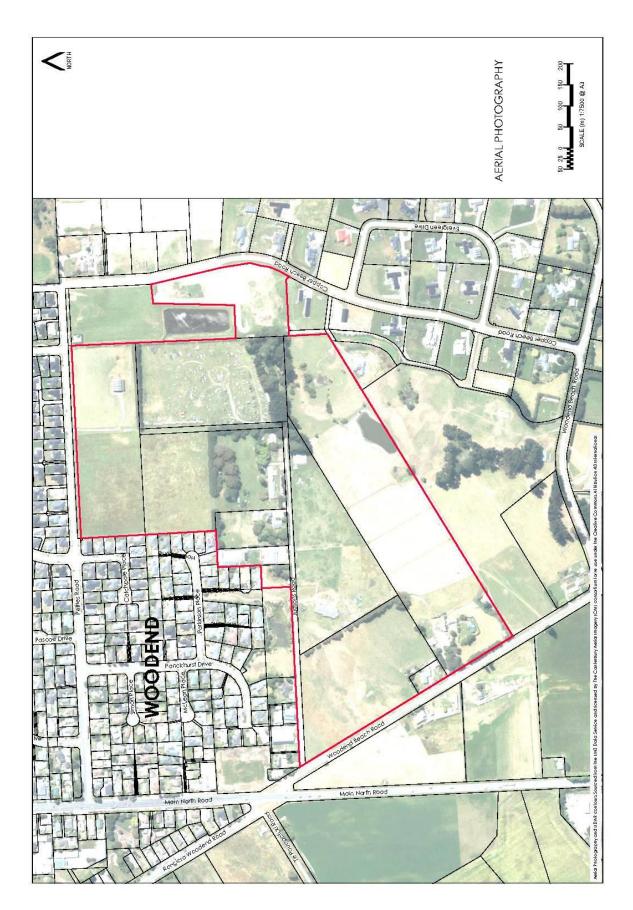
We have also contacted Enable as to the provision of a communication network and they have confirmed that they are able to supply this proposal.

Power and Telecommunications will be provided to all residential lots to utility company and industry standards. All cables will be placed underground and all kiosks will be constructed on separate individual lots. The kiosk sites will be forwarded to Council for approval following the power design.

Street lights will be provided to the roading and reserves to Council standards. The applicant will also provide a street light style to Council for approval.

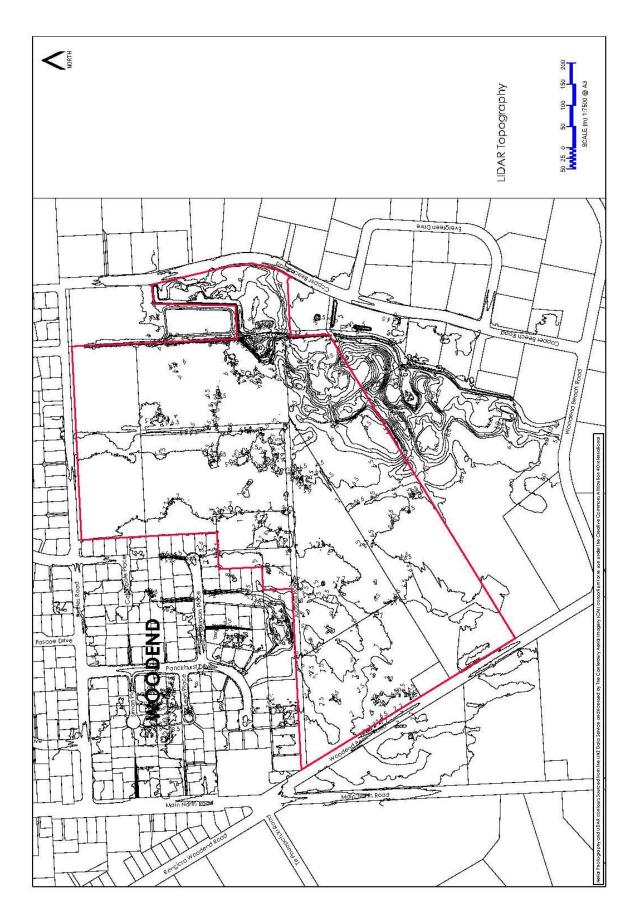


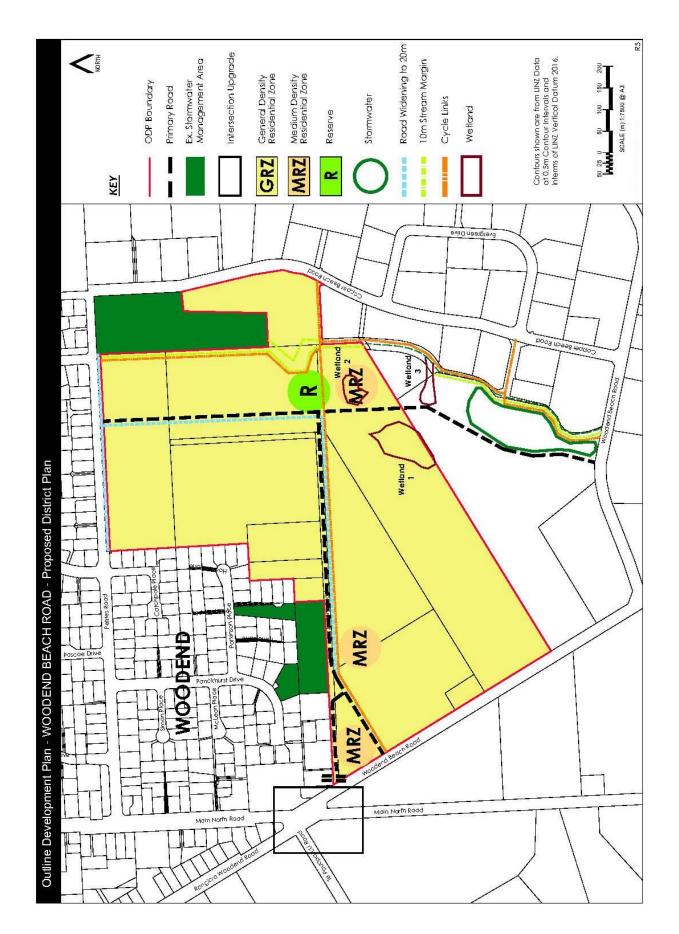
## Appendix A – Aerial Photograph





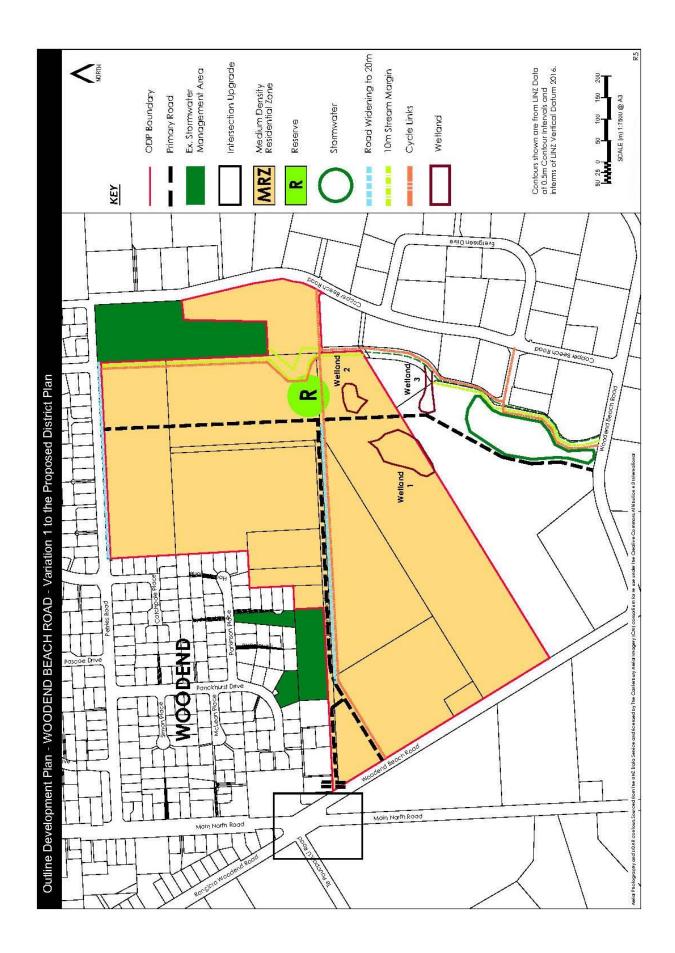




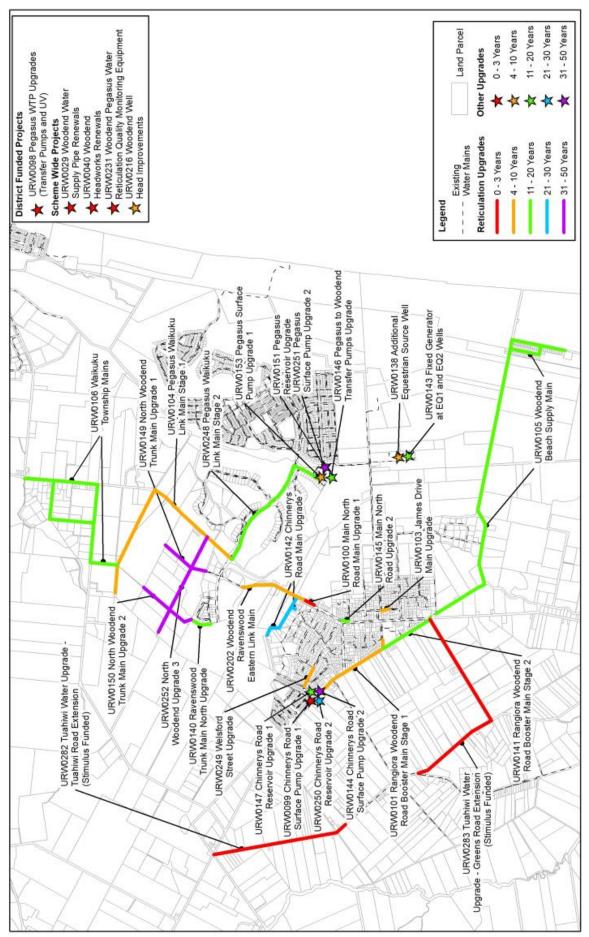


## Appendix C – Outline Development Plan

DAVIE LOVELL-SMITH

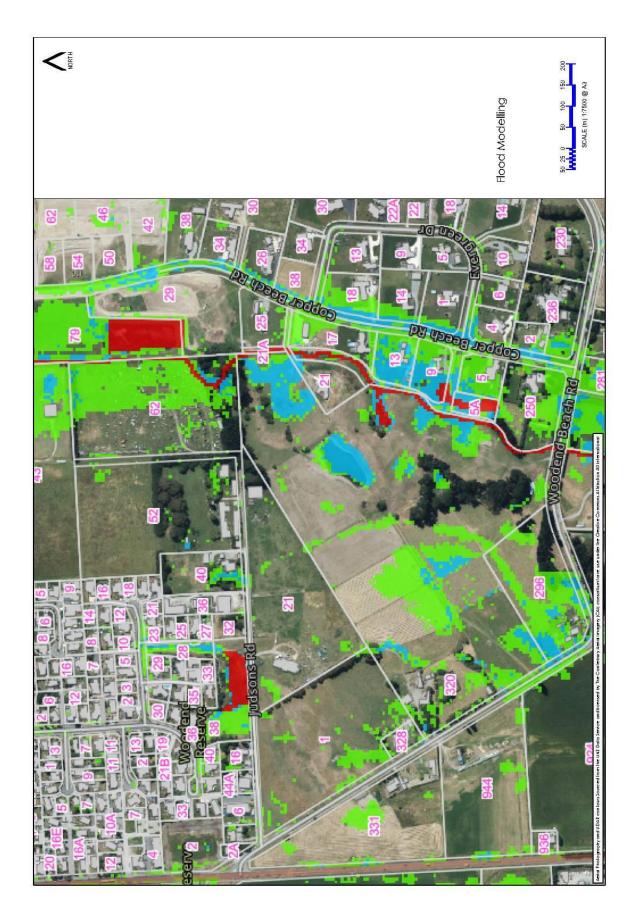


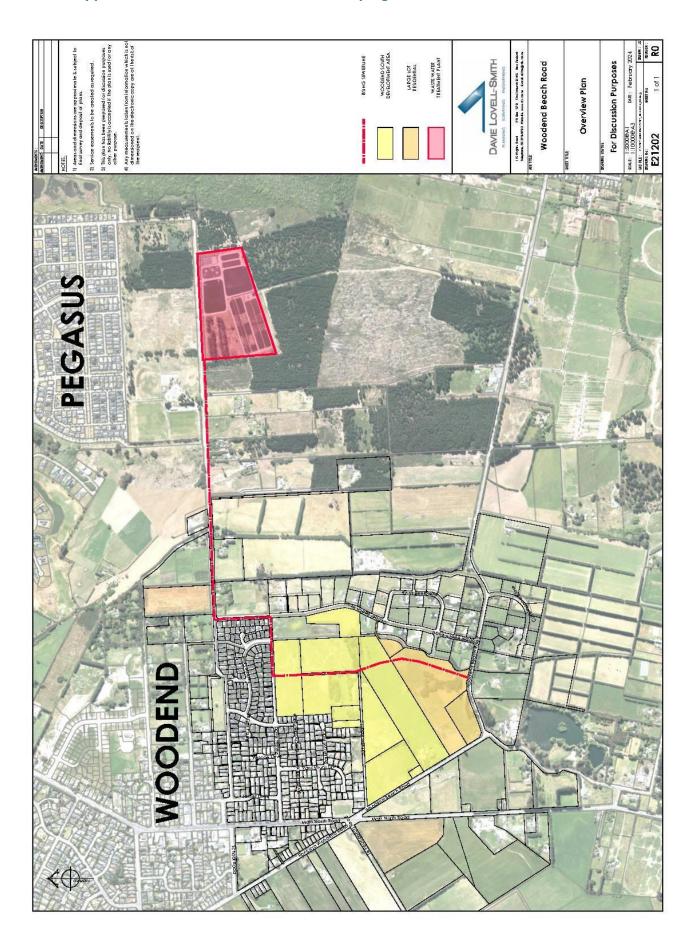
### Appendix D – WDC Water Supply Strategy





## Appendix E – Flood Modelling





## Appendix F – Potential Wastewater Pumping Routes

Davie Lovell-Smith

### Appendix G – Waimakariri District Council Consultations

#### Andy Hall

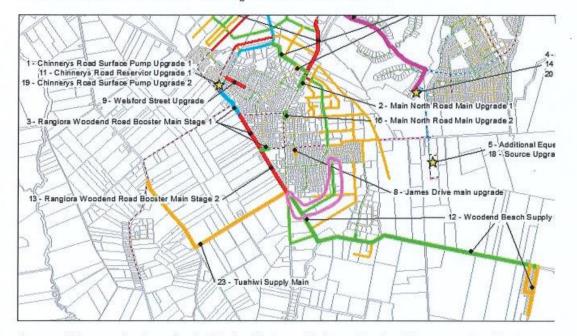
From:	Chris Bacon <chris.bacon@wmk.govt.nz></chris.bacon@wmk.govt.nz>	
Sent: Wednesday, 27 April 2022 10:45 am		
To:	Subdivision Eng	
Cc:	Jennifer McSloy	
Subject:	ubject: RE: WDC website contact form - General enqu	

Hi Deb

See below

#### Water Supply

There is relatively little in the way of upgrades to service this area with reticulated water supply. The diagram below from our 50 year growth modelling shows that a 150mm dia ringfeed (highlighted in pink) would be required through the development area from the existing 150 dia main on Petries Road to feed into the existing network at the intersection of Main North Road and Woodend Beach Road. There would also need to be a connection into the existing reticulation at Judsons Road.



However if the area develops ahead of the land between Gladstone Road and Parsonage Road in East Woodend it may trigger some other internal upgrades that are currently being funded through the East Woodend development contribution. If this happens there may be some additional costs but it depends on the timing of other developments. Other headworks upgrades in Woodend are already covered under the general Woodend-Pegasus development contributions for water supply.

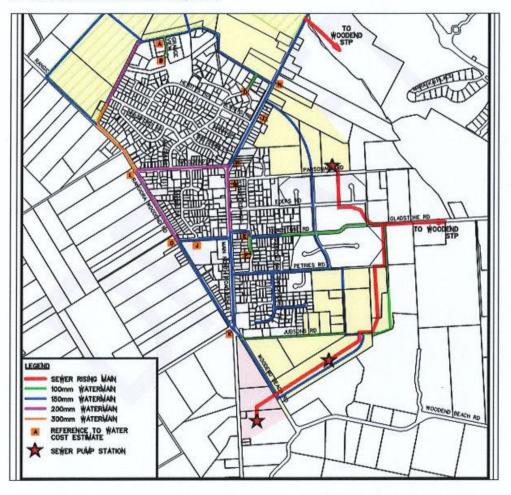
#### Wastewater

There is currently no available long term capacity in the existing wastewater network in this part of Woodend. This means in the long term the area would require a new pumpstation (or pumpstations) with an associated rising main to the Woodend Wastewater Treatment Plant. The Council's expectation would be a gravity sewer network in this area.

1



The diagram below from the 2008 East Woodend Structure Plan Report shows what this might look like in terms of a route (note that the pumpstation and rising main on Parsonage Road shown on the plan would no longer share the rising main for the southern development area as this system has now been built and diverted into the Gladstone Road system).



However, it is possible that the development area could take advantage of some time dependant capacity that is currently available at the existing Petries Road Pumpstation and rising main. This would mean a rising main servicing the development would only need to extend as far as Petries Road in the short to medium term. Further work would be required to determine how many lots could be serviced by the Petries Road station in the short to medium term and whether the developer would still be required to extend the rising main to the treatment plant or whether a development contribution could be taken for the Council to undertake the works at a later date when future development in the East Woodend area is complete.

There may also be the need to oversize the resultant rising main for a future development of commercial land alongside the existing SH1 corridor to the west. If this is the case the Council would fund the extraover cost of any upsizing.

Other upgrades associated with the treatment plant or the Eastern Districts Ocean Outfall network are already accounted for under the Eastern Districts development contributions.

2

#### Stormwater

The development would need to provide stormwater attenuation and treatment for the full development area. There is no available capacity in the existing stormwater network or the Council treatment ponds on Petries Road.

There would be no other Council upgrades required.

Cheers

Chris Bacon Network Planning Team Leader Project Delivery Unit Phone: 0800 965 468 (0800 WMK GOV) Mobile: +6421480925

WAIMAKARIRI



From: Subdivision Eng <subdivisioneng@wmk.govt.nz> Sent: Thursday, 21 April 2022 4:07 PM To: Chris Bacon <chris.bacon@wmk.govt.nz>; Shane Luzak <Shane.Luzak@ara.ac.nz> Cc: Jennifer McSloy <jennifer.mcsloy@wmk.govt.nz> Subject: FW: WDC website contact form - General enquiry

Please see below and attached, and provide some guidance on the infrastructure requirements for rezoning land in Appendix 1 as General Residential or Medium Density Residential.

Debbie Wilson | Land Development Officer Project Delivery Unit Phone: 0800 965 468 (0800 WMK GOV) Mobile: +64273222338





From: Rose Leighton <<u>Rose@blg.nz</u>> Sent: Thursday, 21 April 2022 2:35 PM To: Subdivision Eng <<u>subdivisioneng@wmk.govt.nz</u>> Subject: RE: WDC website contact form - General enquiry

[THIS EMAIL IS FROM AN EXTERNAL SOURCE] DO NOT CLICK links or attachments unless you recognise the sender em

Hi Debbie,

Thank you for your email.

I have been investigating the potential plan change at 43 Petries Road on behalf of the owner of this land. There has been a submission on the Proposed Plan for the rezoning of this land – please see attached for the details of this submission.

I have had previous discussions with Cameron Wood and Heike Downie at Council, who have advised that Council's District Development Strategy and the Rural Residential Development Strategy appear to support the rezoning of this land, which is further supported by its position within the Projected Infrastructure Boundary. Furthermore, Cameron indicated that the site has a lot of merits going for it with regards to rezoning the land, but it would have to go through



the infrastructure team at council so they can determine the infrastructure requirements. It was indicated that this would likely be what it comes down to.

Given this, are you able to provide a comment on what the infrastructure requirements may be for this site if the zone were to change to residential?

We are uncertain if there is already infrastructure in place to support this rezoning (primarily three waters). If the full infrastructure isn't in place at the present time, it is provided for in a Long-Term Plan/ Annual Plan? I understand the site is within the Projected Infrastructure Boundary, but if it is not provided for in a Long Term/Annual Plan, then are you able to indicate what infrastructure would be required and, whether it would be development specific infrastructure, or wider community infrastructure? For example, if the site couldn't connect to wastewater reticulation, but there is enough capacity in the Council's Wastewater Treatment Plant(s), would it be a matter of upgrading the pipes so that future development could connect to the treatment system?

Thank you,

Rose Leighton | Planner | Baseline Group

From: Subdivision Eng <<u>subdivisioneng@wmk.govt.nz</u>> Sent: Thursday, 21 April 2022 1:53 PM To: Rose Leighton <<u>Rose@blg.nz</u>> Subject: FW: WDC website contact form - General enquiry

Hi Rose

Can you give us a little bit more information about what you require.

Many thanks Debbie Wilson | Land Development Officer Project Delivery Unit Phone: 0800 965 468 (0800 WMK GOV) Mobile: +64273222338





From: Chris Bacon <<u>chris.bacon@wmk.govt.nz</u>> Sent: Thursday, 21 April 2022 11:21 AM To: Subdivision Eng <<u>subdivisioneng@wmk.govt.nz</u>> Subject: RE: WDC website contact form - General enquiry

Hi Deb

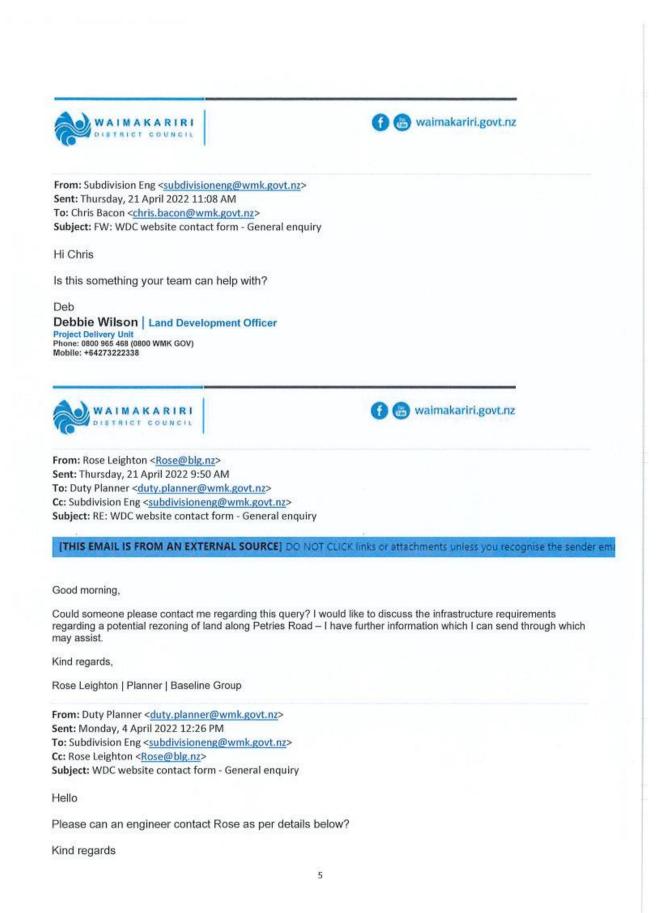
Happy to help provide some technical advice if its simply relating to 3 waters infrastructure but if the query is more of a general development query with considerations around Roading, DCs and other issues it would be best for someone from the Land Development team to take the lead.

4

Cheers

Chris Bacon | Network Planning Team Leader Project Delivery Unit Phone: 0800 965 468 (0800 WMK GOV) Mobile: +6421480925







Anne Babbage | Intermediate Planner Plan Implementation Unit Phone: 0800 965 468 (0800 WMK GOV) Mobile: +64272064526

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From: Council Office <<u>office@wmk.govt.nz</u>> Sent: Monday, April 4, 2022 12:05 PM To: Duty Planner <<u>duty.planner@wmk.govt.nz</u>> Subject: FW: WDC website contact form - General enquiry

Julie Williams | Customer Services Officer - Phone Specialist Customer Services office@wmk.govt.nz Phone: 0800 965 468 (0800 WMK GOV)



From: <u>donotreply@waimakariri.govt.nz</u> <<u>donotreply@waimakariri.govt.nz</u>> Sent: Monday, 4 April 2022 9:02 AM To: Council Office <<u>office@wmk.govt.nz</u>> Subject: WDC website contact form - General enquiry

[THIS EMAIL IS FROM AN EXTERNAL SOURCE] DO NOT CLICK links or attachments unless you recognise the sender en

Name: Rose Leighton

Email: rose@blg.nz

Phone: 021313276

Message:

Good morning, I am one of the planners at Baseline Group and was wondering if you could you please pass on a contact for someone in your infrastructure team? I am wanting to discuss the infrastructure concerns/implications for a potential re-zoning at Petries Road. Kind regards, Rose

waimakariri.govt.nz

waimakariri.govt.nz

### Andy Hall

Chris Bacon <chris.bacon@wmk.govt.nz></chris.bacon@wmk.govt.nz>
Friday, 23 February 2024 10:21 am
Andy Hall
Subdivision Eng; ivan@astonconsultants.co.nz; gerard.cleary@ah.co.nz; Jennifer McSloy
RE: South Woodend Plan Change

You don't often get email from chris.bacon@wmk.govt.nz. Learn why this is important

#### Hi Andy

Yes the land in question is included as part of the 2008 structure plan report. Noting of course that the proposed large lot rural residential portion is outside the structure plan area.

1

Otherwise yes I agree with your comments.

Cheers

Chris Bacon | Network Planning Team Leader Project Delivery Unit

Phone: 0800 965 468 (0800 WMK GOV) Mobile: <u>+64 21 480 925</u> DDI: <u>+64 3 266 9257</u>



From: Subdivision Eng <subdivisioneng@wmk.govt.nz> Sent: Friday, February 23, 2024 7:59 AM To: Chris Bacon <chris.bacon@wmk.govt.nz> Cc: Subdivision Eng <subdivisioneng@wmk.govt.nz> Subject: FW: South Woodend Plan Change

Hi Chris

FYI below

Sharon Timms | Land Development Officer Project Delivery Unit

Phone: 0800 965 468 (0800 WMK GOV) Mobile: +64 27 292 0381 DDI: +64 3 975 5428





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From: Andy Hall <<u>Andy.Hall@dls.co.nz</u>> Sent: Thursday, February 22, 2024 1:28 PM To: Subdivision Eng <<u>subdivisioneng@wmk.govt.nz</u>>

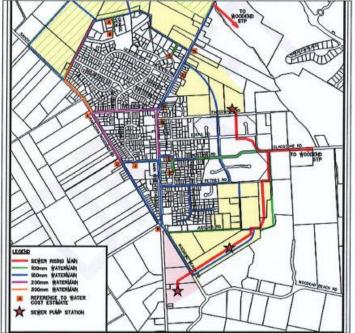


Cc: Ivan Thomson < >; Gerard Cleary < >; Jennifer McSloy <<u>jennifer.mcsloy@wmk.govt.nz</u>> Subject: South Woodend Plan Change

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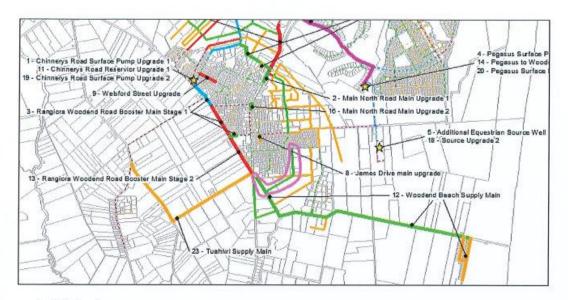
### Dear Chris

Thanks for meting with me yesterday to discuss the attached potential plan change. I would like to keep a record of the discussion for the purposes of the hearing and to that end can you please confirm the following points. Firstly, the land in question is included in the 2008 East Woodend Structure Plan Report;



### 1. Water Supply

- a. There may be some immediate capacity in the existing network but this is very limited
- b. There are all the necessary upgrades in the LTP for the servicing of this site. These upgrades can be brought forward to meet development demand.
- c. WDC would expect the development to provide a main link pipe through the site from Petries Road to Woodend Beach Road. Min dia 150mm(ID). As shown below.
- d. Water Supply DCs may be reviewed as a result of the upgrades.
- e. The supply of water should not be an inhibitor to the zoning of this site into residential.



- 2. Wastewater
  - a. There is very limited capacity in the existing adjacent wastewater infrastructure
  - b. The site may be serviced by Local Pressure Sewers in accordance with the WDC Policies on this system but a full justification of this can only be undertaken at Subdivision consent. For now we can treat it as a possibility.
  - c. If a LPS system were to be used, a pipe would be laid from the site to the WWTP
  - d. If a gravity system were to be used, a new pump or several pumps may need to be installed on site with the initial flows being directed to the existing Petries Road Pump Station. In time the delivery pipe to the WWTP will need to be upgraded and this may be as simple as adding an additional rising main from the WWTP to the corner of Gladstone Road and Petries Road.
  - e. The LLR sites to the south of the development are expected to be on an LPS system
  - f. The WWTP has upgrades included in the LTP. These upgrades are sufficient to cover the development of this site. The upgrades can be brought forward to meet development demand.
- 3. Stormwater
  - a. There is no capacity in the existing Petries Road SW facility and accompanying land
  - b. The small portion of land east of Macintoshes Drain could drain to the Existing basin as long as there was an extension of the basin and land provided.
  - c. The remainder of the development and the LLR zone to the south will drain to a new facility designed and consented with ECan to WDC approval.
  - d. Macintoshes Drain to be preserved along with delineated wetlands yet to be determined.

I think that a pretty fair reflection of the discussion. Please go over it and correct me where you think necessary.

Really grateful for you time yesterday.

Regards

Andy Hall | Engineering Director



116 Wrights Road, Addington, Christchurch | P (03) 379 0793 | M 021 663 856 | www.dls.co.nz

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