

**BEFORE THE WAIMAKARIRI DISTRICT  
COUNCIL HEARINGS PANEL**

**IN THE MATTER** of the Resource Management  
Act 1991

**AND**

**IN THE MATTER** of a submission by Rick  
Allaway and Lionel Larsen (Submission 236).

**SUMMARY STATEMENT OF EVIDENCE OF FIONA ASTON**

**Date: 22 July 2024**

## INTRODUCTION

1. My name is Fiona Aston. Along with my Evidence in Chief (EIC), I have previously provided a rebuttal statement of evidence (dated 5 July 2024) responding to the Council Officers' reports on planning matters, and their response to questions put by the Panel. My EIC sets out my qualifications and experience, and I confirm I have read and will abide by the Environment Court's Practice Note 2023.
2. The Site comprises 58.4 ha fronting the southern and central section of Lehmans Road on the western edge of the Rangiora urban area. The submission requests that the land be rezoned from Rural Lifestyle to a bespoke Large Lot Residential – Specific Control Area Density 2 (**LLRZ2**), with a minimum net site area 1000m<sup>2</sup> and minimum average net site area 1500m<sup>2</sup> (or similar). The Site is held in fourteen separate titles and ownerships, ranging between 4.00ha and 4.77ha. All the properties except one have a dwelling.

## SUMMARY OF POSITION

3. Having regard to the position taken by the Reporting Officer in the Section 42A Report<sup>1</sup> and his response to questions raised by the Panel<sup>2</sup> the submitter has reconsidered this rezoning request and is now prepared to accept a lesser relief, in the form a standard LLRZ<sup>3</sup>.
4. One of Mr Buckley's reasons for recommending rejecting the submission is that the Site has not been identified as a Rural Residential area in the Waimakariri Rural Residential Development Strategy (WRRDS). I consider that proposed policy UFD-P3 (2) with possible amendments as proposed in my Rebuttal<sup>4</sup> provides a pathway to approve proposals seeking LLR in locations that are not currently identified in the WRRDS or the Proposed Plan (PDP). This policy implements the Monitoring and Review provisions in the WRRDS.<sup>5</sup>
5. I acknowledge the Council's decision on the WRRDS sought not to impede development potential around the edges of urban centres. I note however that Policy 6.3.9 anticipates Rural Residential development adjacent to existing townships (see for example Policy 6.3.9 (3) and 5(k). In my opinion, the conflict with Policy 6.3.9 is overcome through PDP UFD-P3.
6. The CRPS is also clear that a RRZ should not be seen as "*in transition to full urban development*". Full residential development west of Lehmans Road to the densities permitted under the MRZ is not a realistic development option in the foreseeable future given

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<sup>1</sup> For example, at [364-365]

<sup>2</sup> Minute 27

<sup>3</sup> The submitter is however retaining the submission as lodged as 'live'

<sup>4</sup> Delete 'is not on the direct edges of the District's main towns of Rangiora, Kaiapoi and Woodend' or amend by adding 'unless there is a demonstrated constraint which means a minimum density of 20 households per ha would be difficult to achieve'..

<sup>5</sup> *This document has a ten year life from adoption, but will be checked in 2022 in order to reconcile it against other work including the review of the Waimakariri District Plan. The quantum of anticipated and/or actual land rezoned for rural residential use as an outcome of this Strategy and the District Plan Review will then be better known and will inform this exercise p22*

the extent of existing ownership fragmentation and existing housing sites. If landowners choose to 'future proof' their properties for potential future further subdivision if and when zoning changed to allow this, a denser development is a longer-term feasible option.

7. In terms of the NPS-UD, I have formed the view that on balance the LLRZs are 'urban'. They are part of the Greater Christchurch Urban Environment as shown on Map A of the RPS and Map 1 of the Greater Christchurch Spatial Plan. The proposed zone gives effect to the Objectives of the NPS-UD read as a whole, and Policies 1, 2 and 8. It will contribute to promoting a well-functioning urban environment.
8. The proposed rezoning has a number of benefits. It will create land use and infrastructure efficiencies and will contribute to a greater variety in section sizes and price points in the vicinity of Rangiora, including opportunities for intergenerational living on larger sites. In my opinion, an LLRZ is a more efficient and effective method of achieving the purpose of the Act than the current proposed Rural Lifestyle (RLS) Zone.
9. With regards to servicing, a memo received from Council staff post the filing of rebuttal suggests that the Site will be able to be serviced with a reticulated wastewater system within the (10 year) planning period. The memo is attached (**Attachment A**). The proposed Special Purpose Zone – Rangiora Airfield makes provision for 102 residential lots, including up to 72 LLR lots (minimum size 5000m<sup>2</sup>) in Activity Area B – Airport Environs (Residential) and maximum 30 residential lots in Activity Area A – Airport Central.<sup>6</sup>
10. In view of Mr Buckley's concerns, the submitter accepts that the Panel may prefer to identify the Site as a LLR Overlay so that further technical investigations can be undertaken. The submitter can commission these if directed to do so by the Panel. As a further alternative relief, if the Panel preferred a smaller area of LLR rezoning / overlay this could be limited to the four blocks at 315, 311, 305 and 285 as per **Figure 1** below.
11. There are several strategic advantages of one or more of these alternative approaches. Firstly, they provide certainty and confidence to the landowners that will encourage them to collaborate and complete what is necessary to replace the Overlay with a Zone. Secondly, the situation with wastewater, and the proposed private/public partnership for the Rangiora Airfield development will become clearer over time which may lead to the Council considering a more strategic approach to urban development in the western part of Rangiora. Thirdly, the Overlay could be seen as a replacement for the LLR opposite and at River Road, proposed to be upzoned to MR.

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<sup>6</sup> [https://www.waimakariri.govt.nz/\\_data/assets/pdf\\_file/0024/161745/STREAM-12B-EVIDENCE-1-SUBMITTER-10-DANIEL-SMITH-DEAN-CHRYSTAL-DIRECTOR-PLANZ-CONSULTANTS-Final.pdf](https://www.waimakariri.govt.nz/_data/assets/pdf_file/0024/161745/STREAM-12B-EVIDENCE-1-SUBMITTER-10-DANIEL-SMITH-DEAN-CHRYSTAL-DIRECTOR-PLANZ-CONSULTANTS-Final.pdf)

12. In summary, I consider that the amended rezoning for an LLRZ or LLRO can be justified and meets the purpose of the Act.

22 July 2024



Figure 1: Potential smaller LLRZ/LLRO site outlined in blue. Submission site outlined in red.

Attachment A:

**WAIMAKARIRI DISTRICT COUNCIL**

**MEMO**

**FILE NO AND TRIM NO:** WAT-05-03-03 / 211006161247  
**DATE:** 16 May 2023  
**MEMO TO:** Kalley Simpson, 3 Waters Manager  
**FROM:** Sam Murphy, Senior Civil Engineer  
**SUBJECT:** North West Rangiora Water and Wastewater Servicing

**1. Summary**

The purpose of this memo is to provide updated cost estimates and allocations for the North West Rangiora Water and Wastewater Servicing, based on the latest proposal for the Airfield redevelopment and proposed subdivision development by DA & AD Smith Investments Ltd.

This is an addendum to the memo produced by Alicia Klos, Senior Project Engineer (TRIM 211006161247). Since the original memo was produced in September 2021, there have been minor changes to proposed pipe diameters due to lot numbers and resulting water demand, as well as significant price movements due to the volatility of inflation and associated increases to the Capital Good Price Index (CGPI) which has resulted in higher pipe and civil works costs.

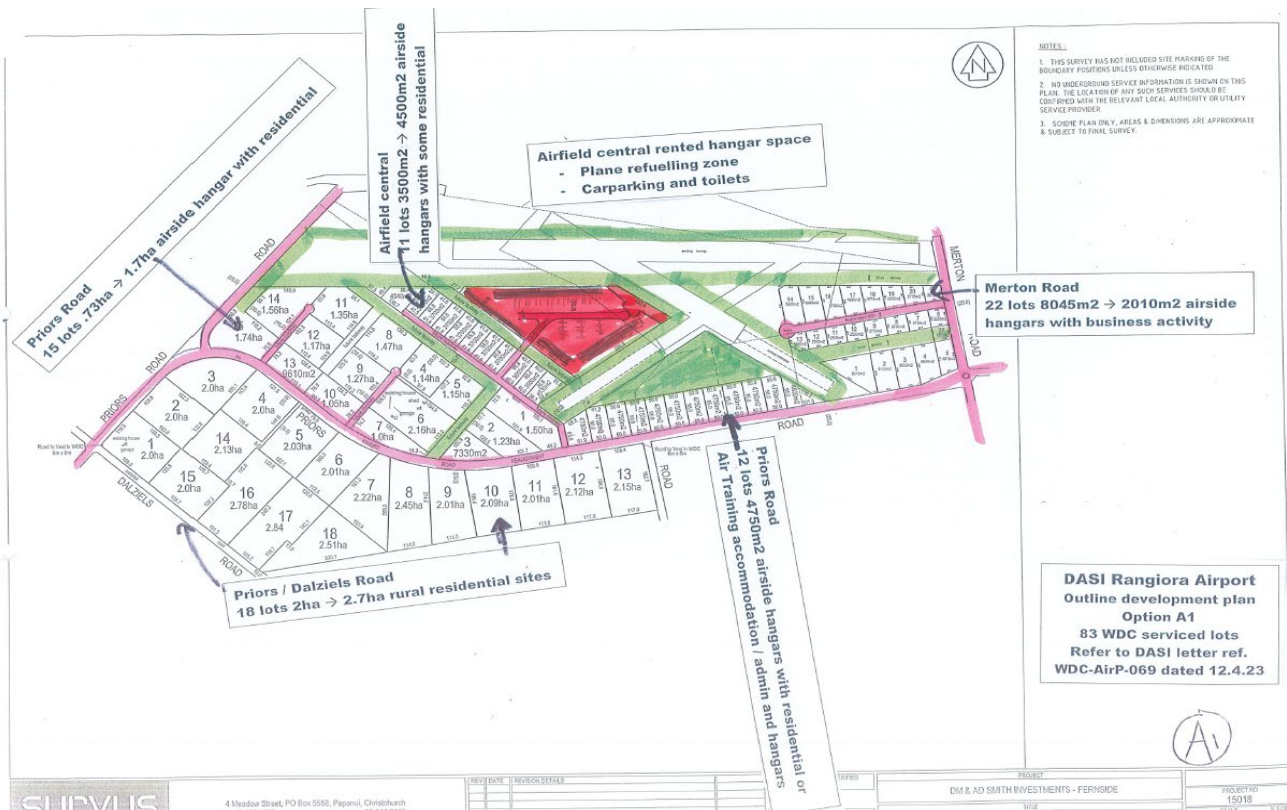


Figure 1: North West Rangiora Development Area – Latest Section Layout

## **2. Background**

DA & AD Smith Investments Ltd (the developer) is proposing to construct a development of rural residential lots and rural commercial lots around the Rangiora Airfield, along Merton and Priors Roads. This development intends to connect onto the Rangiora water and wastewater schemes.

The latest proposed development plan has a total 79 lots, comprised of the following;

1. 38 Airside Titles
2. 22 Commercial Lots
3. 18 Rural Residential Lots
4. 1 Central "Super-Lot" (Central Hangar space with refuelling zone)

All of these connections would be effectively rural connections and therefore be supplied with restricted water and pressure wastewater.

The following existing developments have also been identified as having potential to connect to this scheme extension due to their proximity to the proposed services:

- Rangiora Holiday Park on Lehmans Road
- WDC Rural residential lots adjacent the airfield.
- The Rangiora Airfield (10.2Ha)
- DA & AD Smith Investments Ltd

Based on the previous memo (211006161247), multiple options were identified with Option 1 (the preferred option) being the one on which this current memo is based:

### ***Option 1 Proposal***

Full proposed development by DA & AD Smith Investments Ltd plus the developer proposed WDC land development, Airfield (10.2Ha) and the Eco Holiday Park.

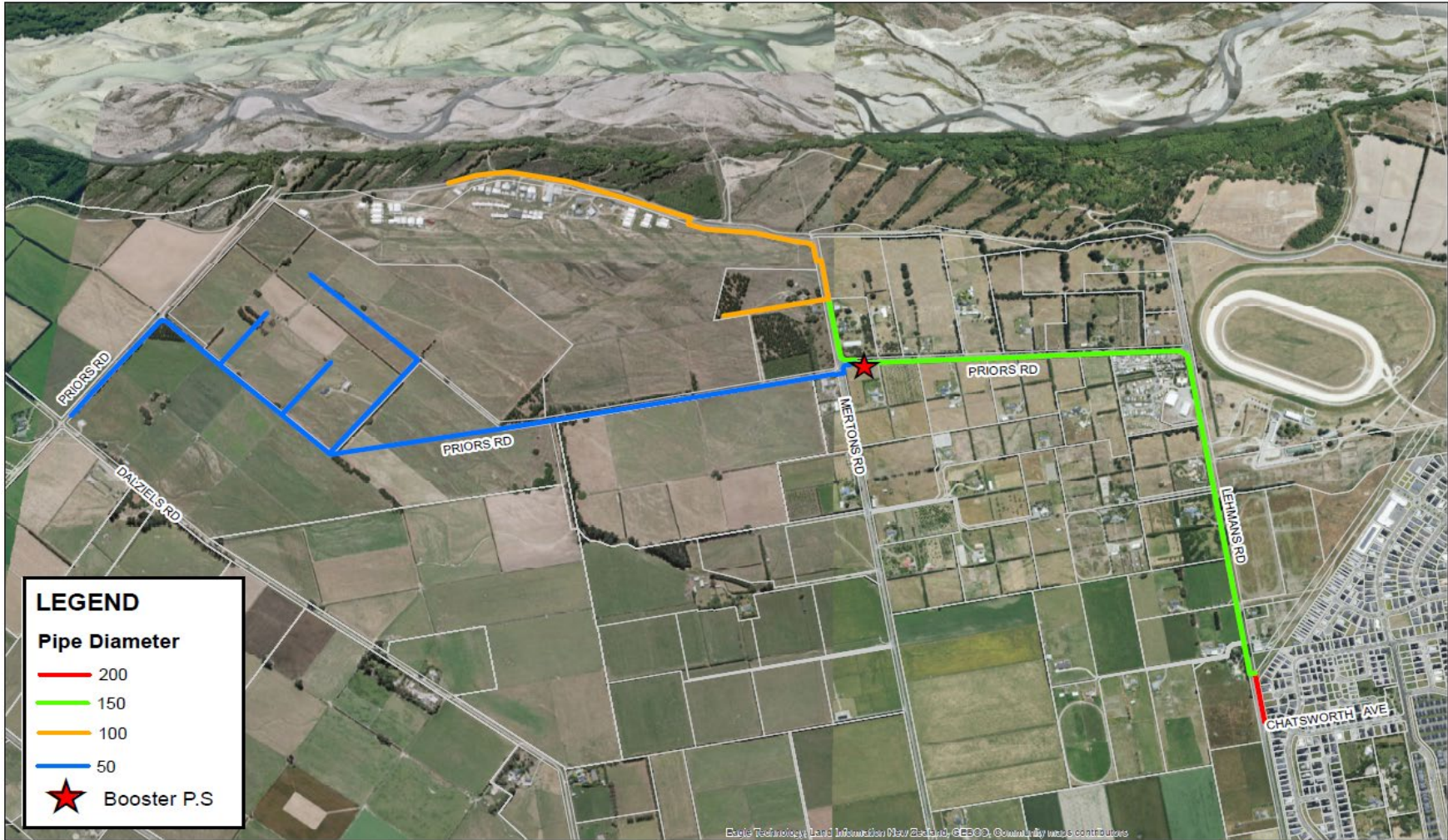
Based on the latest development plan from the developer, updated pipe sizing has now been modelled and updated costings have been calculated. These updated costings reflect minor increases to pipe sizes due to additional Lots proposed by the developer and also take into account price adjustments from September 2021 (when costs were first estimated) to June 2022 (the latest Valuation figures which have been adjusted for Consumer Good Price Index (CGPI)). Further CGPI increases were then applied to match the expected installation date as per the staged implementation below.

It is proposed that these works are constructed in three Stages.

- Stage 1 will connect water and wastewater services to the existing reticulation at Chatsworth Avenue and lay new pipes to the intersection of Lehmans Road and Priors Road. This will enable the Eco Holiday Park to connect to these mains. The CPGI increases mentioned above assume installation of Stage 1 in 2023/24.
- Stage 2 works will involve the laying of mains from Lehmans Road and Priors Road intersection, into the existing airfield and to the proposed developers commercial subdivision. The CPGI increases mentioned above assume installation of Stage 2 in 2024/25.
- Stage 3 works will then complete the remainder to the reticulated network to the WDC rural residential lots and to DA & AD Smith Investments Ltd properties along Priors Rd to Dalziels Road. The CPGI increases mentioned above assume installation of Stage 3 in 2025/26.

The maps below show the updated pipe sizing for both the proposed water and wastewater reticulated network required to service the properties in this area.





**LEGEND**

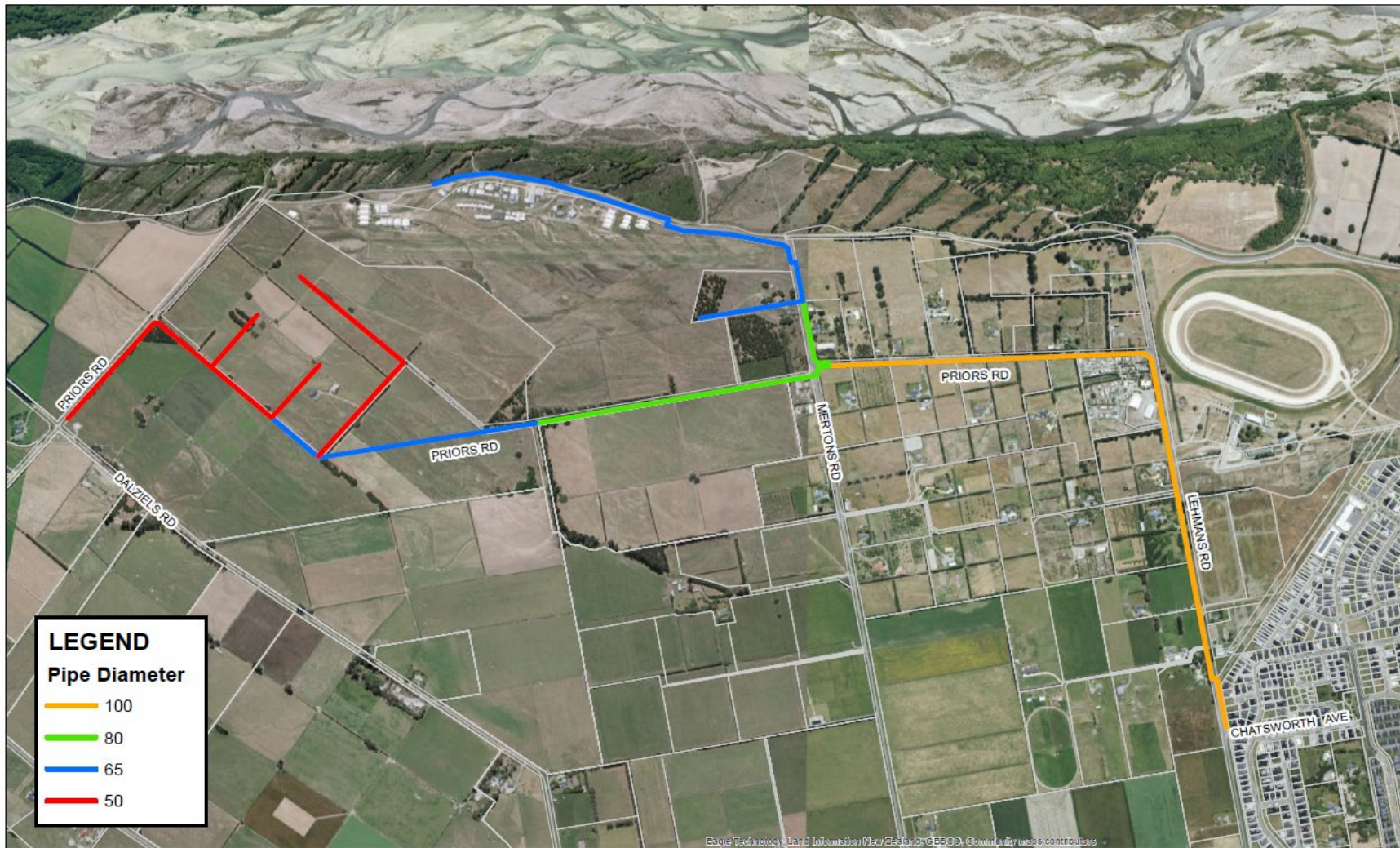
**Pipe Diameter**

- 200
- 150
- 100
- 50
- ★ Booster P.S

 <p><b>WAIMAKARIRI</b> DISTRICT COUNCIL</p>	<p><b>NORTH WEST RANGIORA - AIRFIELD DEVELOPMENT</b></p> <p><b>WATER SERVICING</b></p>	<p>SCALE (A3)</p> <p><b>1:10,000</b></p>	
		<p>DATE</p> <p><b>12/05/2023</b></p>	

Figure 1: Reticulated Water Network





	<b>NORTH WEST RANGIORA - AIRFIELD DEVELOPMENT WASTEWATER SERVICING</b>	SCALE (A3)	
		1:10,000	
		DATE	12/05/2023

Figure 2 - Reticulated Wastewater Network



## 2.1. Water Demand and Cost Allocations

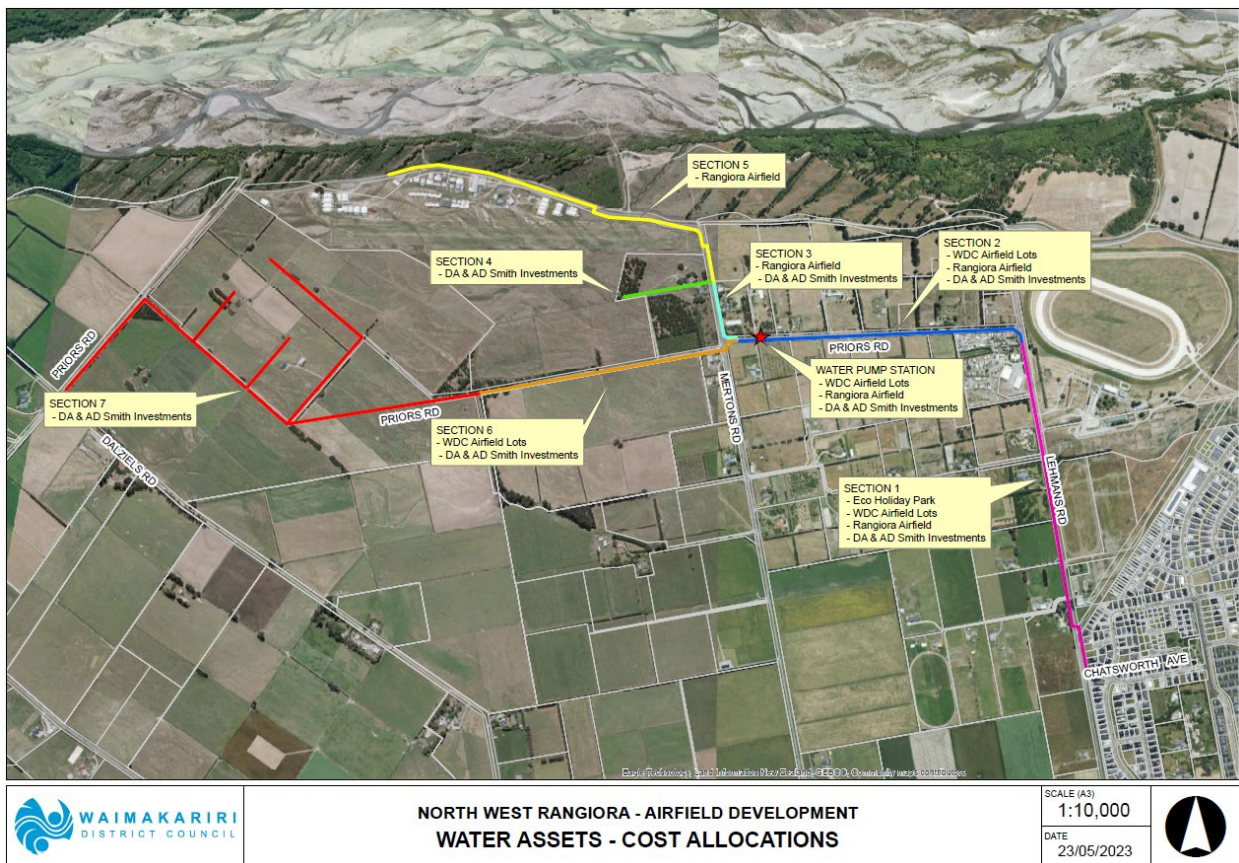
There are four separate entities who will benefit from the installation of the new water reticulation network. These are:

- Eco Holiday Park
- WDC Airfield Development
- Rangiora Airfield
- DA & AD Smith Investment Ltd

It is also proposed that a development to the south of the Rangiora Racecourse, north of Arlington would also be connected. This has been included in the modelling to determine pipe sizing and would ultimately contribute to the scheme through development contributions. However due to the uncertainty of this contribution it is not accounted for in the cost allocation.

Based on the required water demand for each entity, each of these have been modelled to calculate the water flow needed at each site. These water flows are then used to calculate the proportionate split of capital costs to ensure each entity is charged fairly.

The map shown below identifies which of the entities are paying for each section of pipe due to their calculated flow.



Based on each entity paying their fair portion of the capital costs based on flow, the costs are allocated proportionately.

These proportional allocations are detailed in Tables 1 - 8 on the following pages.

Description	Lot Numbers or Ha	Flow per Unit (L/s)	Required Flow (L/s)
Airside Rural Residential - DA & AD Smith Investments	52	0.013	0.676
Commercial - DA & AD Smith Investments	10 Ha	0.407*	4.07
Rural Residential - DA & AD Smith Investments	36	0.013	0.468
WDC Rural Residential	24	0.013	0.312
Rangiora Airfield	10.2 Ha	0.407*	4.15
Eco Holiday Park	1	0.46	0.46
<b>Total</b>			<b>10.136</b>

Table 1 – Baseline - Total flow required for each Entity.

\*Smith Investments commercial area and the Rangiora Airfield have both been modelled as restricted commercial areas with estimated water demand of 0.407L/s/Ha

As the pipe alignment progresses along the route, different entities are charged the capital cost of installing the new pipe (and water booster pump station) based on their usage of the pipe and booster pump station according to proportional flow.

Description	Lot Number or Ha	Flow per Unit (L/s)	Required Flow (L/s)	Percentage of Flow
Airside Rural Residential - DA & AD Smith Investments	52	0.013	0.676	7%
Commercial - DA & AD Smith Investments	10 Ha	0.407	4.07	40%
Rural Residential - DA & AD Smith Investments	36	0.013	0.468	5%
WDC Rural Residential	24	0.013	0.312	3%
Rangiora Airfield	10.2 Ha	0.407	4.15	41%
Eco Holiday Park	1	0.46	0.46	5%
<b>Total</b>			<b>10.136</b>	

Table 2 – Section 1 - Chatsworth Road to Lehmans Rd / Priors Rd Intersection

Description	Rating Units / Ha	Flow per Unit (L/s)	Required Flow (L/s)	Percentage of Flow
Airside Rural Residential - DA & AD Smith Investments	52	0.013	0.676	7%
Commercial - DA & AD Smith Investments	10 Ha	0.407	4.07	42%
Rural Residential - DA & AD Smith Investments	36	0.013	0.468	5%
WDC Rural Residential	24	0.013	0.312	3%
Rangiora Airfield	10.2 Ha	0.407	4.15	43%
Eco Holiday Park	1	0.23		0%
<b>Total</b>			<b>9.676</b>	

Table 3 – Section 2 - Lehmans Rd / Priors Rd Intersection to Priors Rd / Merton's Rd Intersection

Description	Rating Units / Ha	Flow per Unit (L/s)	Required Flow (L/s)	Percentage of Flow
Airside Rural Residential - DA & AD Smith Investments	52	0.013	0	0%
Commercial - DA & AD Smith Investments	10 Ha	0.407	4.07	50%
Rural Residential - DA & AD Smith Investments	36	0.013	0	0%
WDC Rural Residential	24	0.013	0	0%
Rangiora Airfield	10.2 Ha	0.407	4.15	50%
Eco Holiday Park	1	0.23	0	0%
<b>Total</b>			<b>8.22</b>	

Table 4 – Section 3 – Mertons Rd / Priors Rd intersection to Commercial - DA & AD Smith Investments

Description	Rating Units / Ha	Flow per Unit (L/s)	Required Flow (L/s)	Percentage of Flow
Airside Rural Residential - DA & AD Smith Investments	52	0.013	0	0%
Commercial - DA & AD Smith Investments	10 Ha	0.407	4.07	100%
Rural Residential - DA & AD Smith Investments	36	0.013	0	0%
WDC Rural Residential	24	0.013	0	0%
Rangiora Airfield	10.2 Ha	0.407	0	0%
Eco Holiday Park	1	0.23	0	0%
<b>Total</b>			<b>8.22</b>	

Table 5 – Section 4 - Commercial Area DA & AD Investments

Description	Rating Units / Ha	Flow per Unit (L/s)	Required Flow (L/s)	Percentage of Flow
Airside Rural Residential - DA & AD Smith Investments	52	0.013	0	0%
Commercial - DA & AD Smith Investments	10 Ha	0.407	0	0%
Rural Residential - DA & AD Smith Investments	36	0.013	0	0%
WDC Rural Residential	24	0.013	0	0%
Rangiora Airfield	10.2 Ha	0.407	4.15	100%
Eco Holiday Park	1	0.23	0	0%
<b>Total</b>			<b>4.15</b>	

Table 6 - Section 5 – Commercial DA & AD Smith Investments to Airfield

Description	Rating Units / Ha	Flow per Unit (L/s)	Required Flow (L/s)	Percentage of Flow
Airside Rural Residential - DA & AD Smith Investments	52	0.013	0.676	46%
Commercial - DA & AD Smith Investments	10 Ha	0.407		0%
Rural Residential - DA & AD Smith Investments	36	0.013	0.468	32%
WDC Rural Residential	24	0.013	0.312	21%
Rangiora Airfield	10.2 Ha	0.407		0%
Eco Holiday Park	1	0.23		0%
<b>Total</b>			<b>1.456</b>	

Table 7 – Section 6 – Mertons Rd / Priors Rd to WDC Rural residential Lots



Description	Rating Units / Ha	Flow per Unit (L/s)	Required Flow (L/s)	Percentage of Flow
Airside Rural Residential - DA & AD Smith Investments	52	0.013	0.676	59%
Commercial - DA & AD Smith Investments	10 Ha	0.407		0%
Rural Residential - DA & AD Smith Investments	36	0.013	0.468	41%
WDC Rural Residential	24	0.013		0%
Rangiora Airfield	10.2 Ha	0.407		0%
Eco Holiday Park	1	0.23		0%
<b>Total</b>			<b>1.144</b>	

Table 8 – Section 7 – WDC Rural residential Lots to remaining Rural Residential - DA & AD Smith Investments

## 2.2. Water Financial Estimates

Based on Section 1.1 of this memo, proportional allocations are then used to calculate how much of the capital cost of each section of pipe and the water booster pump stations each Entity is to pay.

The updated water financial estimates detailed in Table 9 below are based on the expected installation rates at the assumed time of installation, being June 2022 valuation rates with CPGI increases allowed based on the staged aspect of the overall project. Additionally, 12% professional fees and 40% contingency was also added to the estimates.

Table 9 presents the cost estimate for the preferred Option servicing the DA & AD Smith Investments Development, WDC rural residential development, Rangiora Airfield, and the Eco Holiday Park

Description	Total Capital Cost	Eco Holiday Park	WDC Rural Residential	Rangiora Airfield	DA & AD Smith Investments
<b>Updated Estimate – May 2023</b>	\$2,590,594	\$17,955	\$106,338	\$978,804	\$1,487,498

Table 9: Water cost estimate for preferred option

It is intended that the construction of both the water and wastewater reticulation will be staged over a three year period. The estimated costs of each stage are shown below in Table 10

Description	Stage 1 2023/24	Stage 2 2024/25	Stage 3 2025/26	TOTAL WATER
Holiday Park	\$17,955	\$0	\$0	<b>\$17,955</b>
WDC Airfield Lots	\$10,773	\$33,866	\$61,699	<b>\$106,338</b>
Rangiora Airfield	\$143,637	\$835,167	\$0	<b>\$978,804</b>
DA & AD Smith Investments	\$186,728	\$711,983	\$588,787	<b>\$1,487,498</b>
<b>TOTAL</b>	<b>\$359,092</b>	<b>\$1,581,015</b>	<b>\$650,486</b>	<b>\$2,590,594</b>

Table 10 – Breakdown of costs based on three stage construction.

The full financial break-down is detailed on the following page, refer Table 11. This details the total breakdown of costings, CGPI and cost allocation percentage as detailed in Section 1.1.

## Full Financial breakdown of Preferred Water Option – May 2023

Description	Quantity (m)	Proposed Main Diameter (mm)	Proposed Main Material	June 2022 Rate pipe, Valve and Hydrant	CGPI Increase (%)	Upgrade cost	Professional Fees (12%)	Contingency (40%)	Total Capital Cost	Holiday Park	WDC Airfield Development	Airfield	DA & AD Smith Investments	Holiday Park	WDC Airfield Development	Airfield	DA & AD Smith Proportion
Existing Network to Parrott Rd (Paper Road)	150	200	PE	\$230.00	14.76	\$39,592	\$4,751	\$15,837	\$60,180	5%	3%	40%	52%	\$3,009	\$1,805	\$24,072	\$31,294
Proposed 200mm to 285 Lehmans Road	420	150	PE	\$168.00	14.76	\$80,975	\$9,717	\$32,390	\$123,081	5%	3%	40%	52%	\$6,154	\$3,692	\$49,233	\$64,002
285 Lehmans Road to Intersection Lehmans and Priors	600	150	PE	\$168.00	14.76	\$115,678	\$13,881	\$46,271	\$175,831	5%	3%	40%	52%	\$8,792	\$5,275	\$70,332	\$91,432
Intersection Lehmans and Priors to Intersection Merton and Priors	1000	150	PE	\$168.00	18.42	\$198,946	\$23,873	\$79,578	\$302,397	0%	3%	43%	54%	\$0	\$9,072	\$130,031	\$163,295
Intersection to Commercial Area	170	150	PE	\$179.39	18.42	\$36,114	\$4,334	\$14,445	\$54,893	0%	0%	50%	50%	\$0	\$0	\$27,446	\$27,446
Commercial Area	300	100	PE	\$138.81	18.42	\$49,314	\$5,918	\$19,725	\$74,957	0%	0%	0%	100%	\$0	\$0	\$0	\$74,957
Commercial Area to Airfield	1290	100	PE	\$138.81	18.42	\$212,049	\$25,446	\$84,819	\$322,314	0%	0%	100%	0%	\$0	\$0	\$322,314	\$0
Booster Pumpstation	1			\$460,000.00	18.42	\$543,720	\$65,246	\$217,488	\$826,454	0%	3%	43%	54%	\$0	\$24,794	\$355,375	\$446,285
Intersection to proposed WDC Land Connection	700	50	PE	\$95.00	22.08	\$81,183	\$9,742	\$32,473	\$123,398	0%	50%	0%	50%	\$0	\$61,699	\$0	\$61,699
WDC Land Connection to Remaining Rural Res Lots	2990	50	PE	\$95.00	22.08	\$346,768	\$41,612	\$138,707	\$527,088	0%	0%	0%	100%	\$0	\$0	\$0	\$527,088
<b>TOTAL</b>	<b>7621</b>					<b>\$1,704,338</b>	<b>\$204,521</b>	<b>\$681,735</b>	<b>\$2,590,594</b>					<b>\$17,955</b>	<b>\$106,338</b>	<b>\$978,804</b>	<b>\$1,487,498</b>

Table 11 – Full financial breakdown of preferred water option -May 2023

**STAGE ONE**

**STAGE TWO**

**STAGE THREE**

### 3. Wastewater Servicing

#### 3.1. Wastewater Unit and Cost Allocations

The proposed development is to be serviced with a pressure wastewater network, with pumps on the rural residential and commercial properties designed to discharge into the pressure mains and then discharge into the Rangiora gravity network at Chatsworth Road.

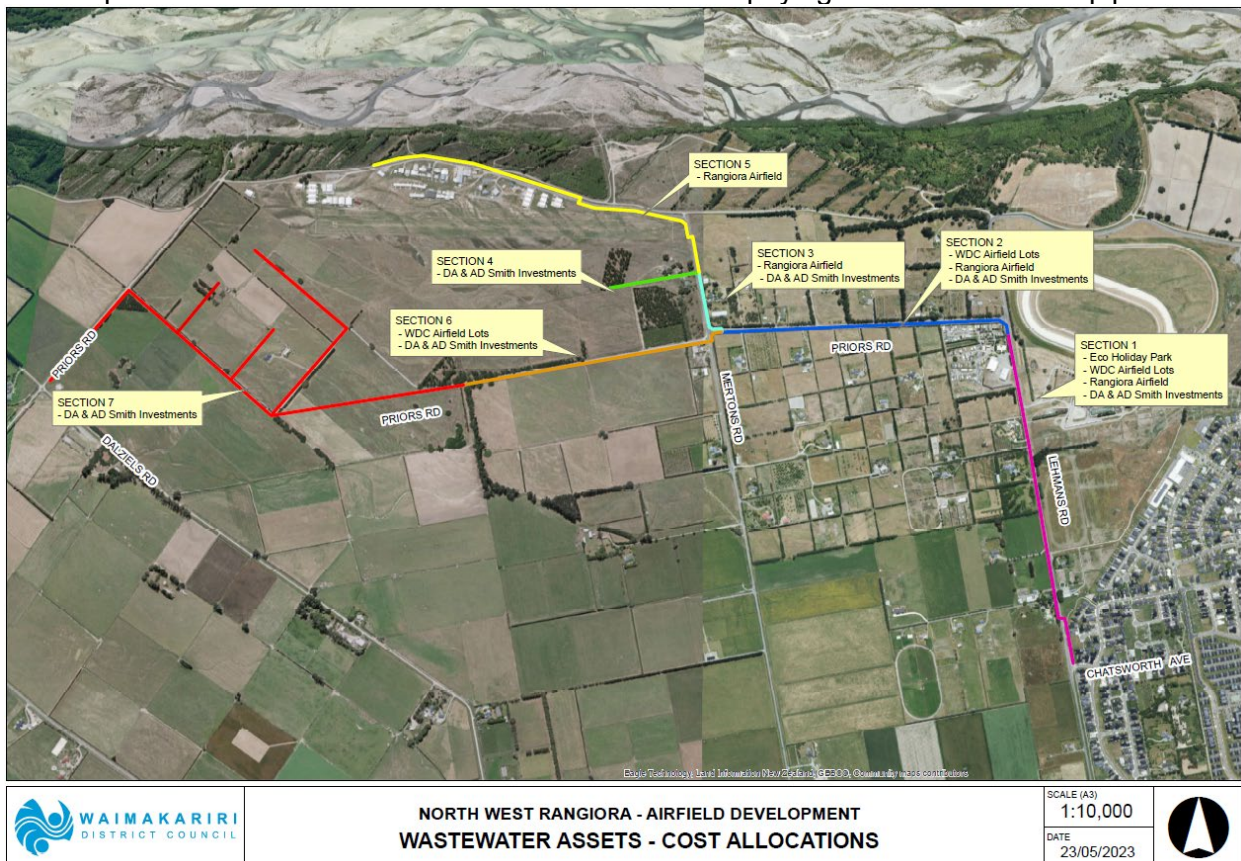
The same four entities detailed in Section 1.1 will also benefit from the installation of the new wastewater reticulation network. These are:

- Eco Holiday Park
- WDC Airfield Development
- Rangiora Airfield
- DA & AD Smith Investment Ltd

Similar to the water allocation, it is also proposed that a development to the south of the Rangiora Racecourse, north of Arlington would also be connected but in this exercise it is assumed the connection will be directly into Chatsworth Road gravity sewer and therefore not allowed for in the capacity calculations of the cost allocations.

The proportional allocation for wastewater is based on the amount of wastewater loading discharged into the reticulated network. These differ from the calculation used in the water percentage allocation due to predicted wastewater loading based on the use of the Lots. These are therefore based on Lots or equivalent Lots discharging wastewater into the reticulated network. Based on the required wastewater discharge loading for each entity, each of these have been modelled to calculate the required pipe sizes along each section with costs allocated due to their calculated wastewater loading into the network

The map shown below identifies which of the entities are paying for each section of pipe.





Based on each entity paying their fair portion of the capital costs based on loading, the costs are allocated proportionately.

These proportional allocations are detailed in the following tables:

Description	Lots / Equivalent Lots
Airside Rural Residential - DA & AD Smith Investments	26
Commercial - DA & AD Smith Investments	25
Rural Residential - DA & AD Smith Investments	18
WDC Rural Residential	12
Rangiora Airfield	25
Eco Holiday Park	30
<b>TOTAL</b>	<b>136</b>

*Table 12 – Baseline - Total wastewater based on Lots / Equivalent Lots for each Entity.*

Description	Lots/equivalent lots	Percentage of Loading
Airside Rural Residential - DA & AD Smith Investments	26	20%
Commercial - DA & AD Smith Investments	25	18%
Rural Residential - DA & AD Smith Investments	18	13%
WDC Rural Residential	12	9%
Rangiora Airfield	25	18%
Eco Holiday Park	30	22%
<b>Total</b>	<b>136</b>	

*Table 13 – Section 1 – Chatsworth Avenue to intersection Lehmans Rd / Priors Rd*

Description	Lots/equivalent lots	Percentage of Loading
Airside Rural Residential - DA & AD Smith Investments	26	25%
Commercial - DA & AD Smith Investments	25	24%
Rural Residential - DA & AD Smith Investments	18	17%
WDC Rural Residential	12	11%
Rangiora Airfield	25	24%
Eco Holiday Park	0	0%
<b>Total</b>	<b>106</b>	

*Table 14 – Section 2 – Intersection Lehmans Rd / Priors Rd to intersection Priors Rd / Mertons Rd*

Description	Lots/equivalent lots	Percentage of Loading
Airside Rural Residential - DA & AD Smith Investments	0	0%
Commercial - DA & AD Smith Investments	25	50%
Rural Residential - DA & AD Smith Investments	0	0%
WDC Rural Residential	0	0%
Rangiora Airfield	25	50%
Eco Holiday Park	0	0%
<b>Total</b>	<b>50</b>	

*Table 15 – Section 3 – Intersection Priors Rd / Mertons Rd to Commercial area DA & AD Smith*

Description	Lots/equivalent lots	Percentage of Loading
Airside Rural Residential - DA & AD Smith Investments	0	0%
Commercial - DA & AD Smith Investments	25	100%
Rural Residential - DA & AD Smith Investments	0	0%
WDC Rural Residential	0	0%
Rangiora Airfield	0	0%
Eco Holiday Park	0	0%
<b>Total</b>	<b>25</b>	

Table 15 – Section 4 – Commercial area DA & AD Smith Investments

Description	Lots/equivalent lots	Percentage of Loading
Airside Rural Residential - DA & AD Smith Investments	0	0%
Commercial - DA & AD Smith Investments	0	0%
Rural Residential - DA & AD Smith Investments	0	0%
WDC Rural Residential	0	0%
Rangiora Airfield	25	100%
Eco Holiday Park	0	0%
<b>Total</b>	<b>25</b>	

Table 16 – Section 5 – Rangiora Airfield

Description	Lots/equivalent lots	Percentage of Loading
Airside Rural Residential - DA & AD Smith Investments	26	47%
Commercial - DA & AD Smith Investments	0	0%
Rural Residential - DA & AD Smith Investments	18	32%
WDC Rural Residential	12	21%
Rangiora Airfield	0	0%
Eco Holiday Park	0	0%
<b>Total</b>	<b>56</b>	

Table 17 – Section 6 – Intersection Priors Rd / Mertons Rd to WDC Airfield Lots

Description	Lots/equivalent lots	Percentage of Loading
Airside Rural Residential - DA & AD Smith Investments	26	59%
Commercial - DA & AD Smith Investments	0	0%
Rural Residential - DA & AD Smith Investments	18	41%
WDC Rural Residential	0	0%
Rangiora Airfield	0	0%
Eco Holiday Park	0	0%
<b>Total</b>	<b>44</b>	

Table 18 – Section 7 – WDC Airfield Lots to remaining rural residential DA & AD Smith Investments

### 3.2. Wastewater Financial Estimates

Based on Section 2.1 of this memo, proportional allocations are then used to calculate how much of the capital cost of each section of wastewater pipe each Entity is to pay.

The updated wastewater financial estimates detailed in Table 19 below are based on the expected installation rates at the assumed time of installation, being June 2022 valuation rates with CGPI increase allowed based on the staged aspect of the overall project. Additionally, 12% professional fees and 40% contingency was also added to the estimates.

Table 19 presents the cost estimate for the preferred Option servicing the DA & AD Smith Investments Development, WDC rural residential development, Rangiora Airfield and the Eco Holiday Park

Description	Total Capital Cost	Eco Holiday Park	WDC Airfield Lots	Rangiora Airfield	DA & AD Smith Investments
<b>Updated Estimate – May 2023</b>	\$1,626,383	\$80,160	\$134,966	\$386,954	\$1,024,303

*Table 19 – Wastewater costs based on the preferred option*

Similar to the water pipelines it is intended that the construction of both the water and wastewater reticulation will be staged over a three year period. The estimated costs of each stage are shown below in Table 20

Description	Stage 1 2023/24	Stage 2 2024/25	Stage 3 2025/26	TOTAL WASTEWATER
Holiday Park	\$80,160	\$0	\$0	<b>\$80,160</b>
WDC Airfield Lots	\$32,793	\$27,484	\$74,689	<b>\$134,966</b>
Rangiora Airfield	\$65,586	\$321,368	\$0	<b>\$386,954</b>
DA & AD Smith Investments	\$185,826	\$236,701	\$601,776	<b>\$1,024,303</b>
<b>TOTAL</b>	<b>\$364,365</b>	<b>\$585,553</b>	<b>\$676,465</b>	<b>\$1,626,383</b>

*Table 20 – Breakdown of costs based on three stage construction.*

The full financial break-down is detailed on the following page, refer Table 21. This details the total breakdown of costings, CGPI and cost allocation percentage as detailed in Section 2.1.



Description	Quantity (m)	Proposed Main Diameter (mm)	Proposed Main Material	June 2022 Rate pipe, Valve and Hydrant	CGPI Increase (%)	Upgrade cost	Professional Fees (12%)	Contingency (40%)	Total Capital Cost	Holiday Park	WDC Airfield Development	Airfield	DA&AD Smith	Holiday Park	WDC Airfield Development	Airfield	DA & AD Smith Proportion
Existing Network to Parrott Rd (Paper Road)	150	100	PE	\$138.81	1.476	\$30,733	\$3,688	\$12,293	\$46,713	22%	9%	18%	51%	\$10,277	\$4,204	\$8,408	\$23,824
Parrot Rd to 285 Lehmans Road	420	100	PE	\$138.81	1.476	\$86,051	\$10,326	\$34,420	\$130,798	22%	9%	18%	51%	\$28,775	\$11,772	\$23,544	\$66,707
285 Lehmans Road to Intersection Lehmans and Priors	600	100	PE	\$138.81	1.476	\$122,930	\$14,752	\$49,172	\$186,854	22%	9%	18%	51%	\$41,108	\$16,817	\$33,634	\$95,295
Intersection Lehmans and Priors to Intersection Merton and Priors	1000	100	PE	\$138.81	1.1842	\$164,379	\$19,725	\$65,752	\$249,856	0%	11%	24%	65%	\$0	\$27,484	\$59,965	\$162,406
Intersection to Commercial Area	170	80	PE	\$115.00	1.1842	\$23,151	\$2,778	\$9,260	\$35,190	0%	0%	50%	50%	\$0	\$0	\$17,595	\$17,595
Commercial Area	300	65	PE	\$105.00	1.1842	\$37,302	\$4,476	\$14,921	\$56,699	0%	0%	0%	100%	\$0	\$0	\$0	\$56,699
Commercial Area to Airfield	1290	65	PE	\$105.00	1.1842	\$160,400	\$19,248	\$64,160	\$243,808	0%	0%	100%	0%	\$0	\$0	\$243,808	\$0
Intersection to proposed WDC Land Connection	700	80	PE	\$115.00	1.2208	\$98,274	\$11,793	\$39,310	\$149,377	0%	50%	0%	50%	\$0	\$74,689	\$0	\$74,689
WDC Land Connection to Remaining Rural Res Lots	2990	50	PE	\$95.00	1.2208	\$346,768	\$41,612	\$138,707	\$527,088	0%	0%	0%	100%	\$0	\$0	\$0	\$527,088
<b>Total</b>	<b>7620</b>					<b>\$1,069,989</b>	<b>\$128,399</b>	<b>\$427,995</b>	<b>\$1,626,383</b>					<b>\$80,160</b>	<b>\$134,966</b>	<b>\$386,954</b>	<b>\$1,024,303</b>

Table 21 – Full financial breakdown of preferred wastewater option – May 2023

**STAGE ONE**

**STAGE TWO**

**STAGE THREE**

#### **4. Accuracy Of Estimates**

There is a lot of uncertainty around inflation and future movement of the CGPI, therefore the figures used for producing these costs estimates are based on known valuation rates at June 2022 with the CGPI cost increase as shown in the calculation tables. These rates are calculated from past and existing contracts that the Waimakariri District Council tenders for water and wastewater projects. Stage 1 works to lay water and wastewater services to the intersection of Lehmans Road and Priors Road will enable more accurate assumptions for Stage 2. Stage 2 and 3 cost estimates which will likely require further adjustments once the true costs of Stage 1 is known.