

BF & DM Yzendoorn Proposed Re-zoning 1012 Gordonton Road

THREE WATERS ASSESSMENT

20048-EN-REP-001-Rev 0

PROJECT ADDRESS

1012 Gordonton Road

Gordonton

ADDRESS FOR SERVICE

Blue Wallace Surveyors

P.O. Box 38

Waikato Mail Centre

Hamilton



PAGE i

Contents

1.0	General	1
2.0	Site Description	1
3.0	Proposed Site Layout	1
4.0	Stormwater Management	1
4.1	Exiting Infrastructure.	1
4.2	Proposed Stormwater	2
4.3	Secondary flows/Overland flow paths.	2
4.4	Flood assessment	3
5.0	Wastewater and Water	5
5.1	Existing Wastewater	5
5.2	Proposed Wastewater	5
5.3	Existing Water supply	6
5.4	Proposed Water Supply	6
APPEN	IDIX A	Α

1.0 General

The purpose of this document is to assesses to potential of rezoning 1012 Gordonton Road from rural to residential and ensure that 1012 Gordonton Road can be serviced for residential development. There are currently no dwellings on site, however there are two sheds that are situated in the middle of the site along the top of the embankment. The site is currently used as a grazing block for sheep.

The current proposal is to subdivide the sites into six North facing Lots along the elevated ground with an access lot coming off Gordonton Road to provide access to each Lot. With lot 7 a standalone lot.

2.0 Site Description

The majority of the site is pastureland with a stream running along the Northern Boundary. The site can be split in half, with the low-lying area to the South East and the more elevated area to the North West. Except for the elevation change between the low-lying area and the elevated area, the site overall flat. The Komakorau stream is running along the Northern Boundary and potentially floods the low laying areas during major storm events.

3.0 Proposed Site Layout

The proposed layout is to have a 6m wide assess lot coming off Gordonton Road between Lot 2 and Lot 7 with a turning head at the end. This assess lot will service six residential Lots which will be spaced along the Komakorau Stream embankment facing North. An additional lot will be created, where the existing orchard is, to accommodate the localized private wastewater system. The assessment is based on a standard Lot size of +/- 500 m² which will be large enough for a standard family size house.

4.0 Stormwater Management

4.1 Exiting Infrastructure

At the present time there is no existing stormwater infrastructure for our site. The nearest infrastructure is a 3mm00 diameter gravity main collecting run-off from the community car park and park run-off. The existing pipe discharges along the site's North Western boundary. Based on the existing catchment size for this system we anticipate there is no spare capacity to accommodate any additional run-off.

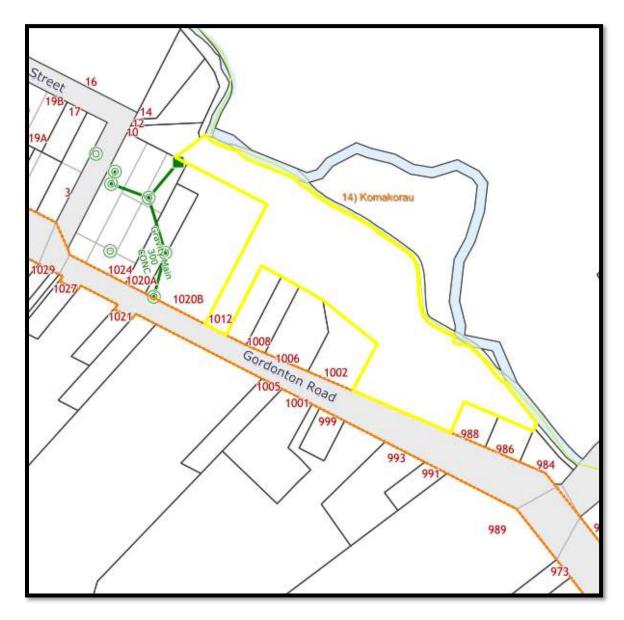


Figure 1: Waikato District Council IntraMaps - Stormwater Layout

4.2 Proposed Stormwater

It is proposed that each Lot will have a on-lot reuse tank which will collect all the roof run-off. Utilisation of re-use tanks will also help with the need for water supply. Any additional on-lot hardstands can be treated via an on-lot soakage device, permeable pavement or raingardens. The road run-off from the access lot is to be collected via catchpits and treated via a soakage device or other device that suits the site conditions.

4.3 Secondary flows/Overland flow paths

The sites natural topography is sloping from South to North which is from Gordonton Road towards the Komakorau stream. There is also a natural depression at the entrance coming off Gordonton Road sloping East to West. The majority of the sites secondary flows will drain along the new access lot towards the Komakorau Stream with the first section of the access lot draining towards the natural depression.

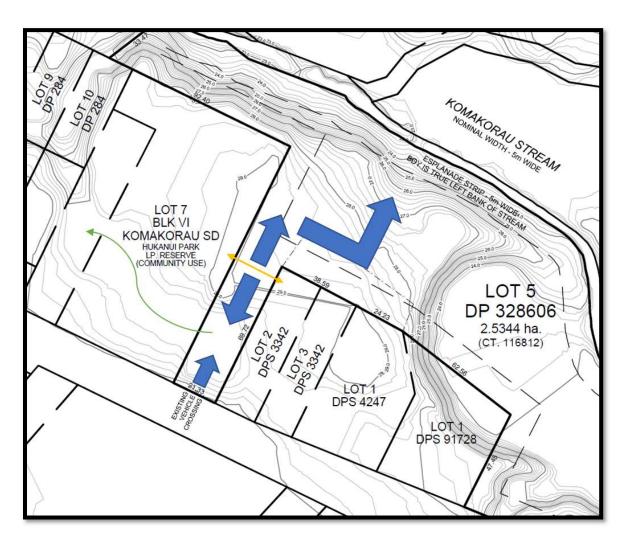


Figure 2: Secondary Flows

4.4 Flood Assessment

Assessment is based on the Waikato Regional Hazard Portal – River Flooding.

The site falls under the Mangawara Stream flood hazard model flood, hazard ID W47. This model shows that some of the low laying areas of the site were affected by the 2002 Weather Bomb. Figure 4 shows the predicted flooding depth which varies from 0m – 0.5m. We propose any future Lots are to be situated along the elevated areas and the low laying areas are kept as green spaces.

Future investigation will be required to determine the exact flood levels.

Minimum floor levels have to comply with NZS 4404 - Section 4.3.5.1 which states:

The minimum freeboard height additional to the top water flood level of the 1% AEP design storm should be as follows or as specified in the district or regional plan.

Freeboard:

- Habitable dwellings (including attached garages) 0.5m
- Commercial and industrial buildings 0.3m
- Non-habitable residential buildings and detached garages 0.2m

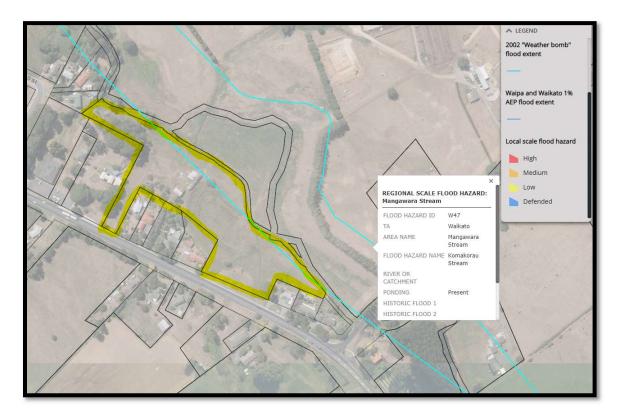


Figure 3: Waikato Regional Hazard Portal – Regional flood scale

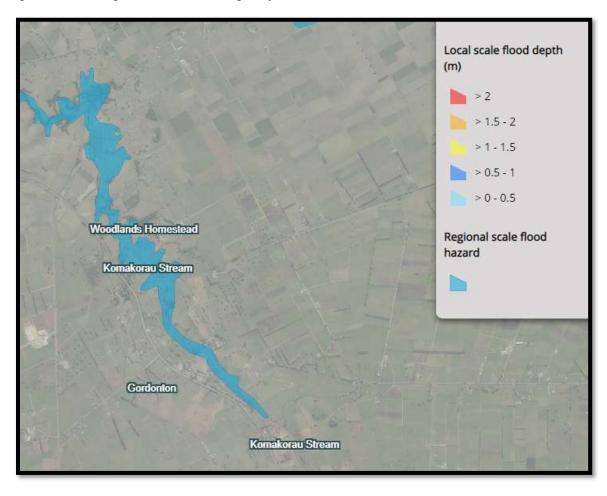


Figure 4: Waikato Regional Hazard Portal – Local scale of flooding depth.

5.0 Wastewater and Water

5.1 Existing Wastewater

Gordonton township has no wastewater reticulation at present and all wastewater is treated on site

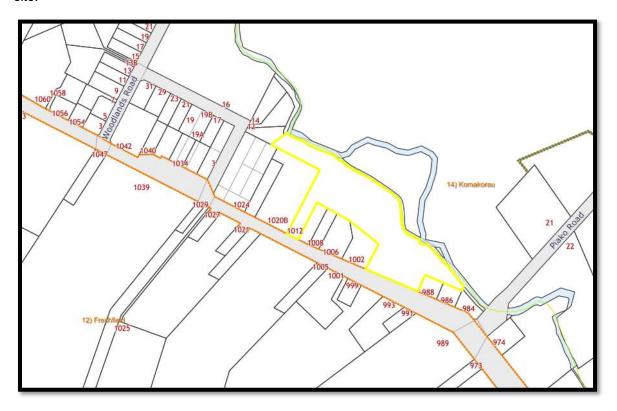


Figure 5: Waikato District Council IntraMaps Wastewater Utilities.

5.2 Proposed Wastewater

An onsite wastewater treatment area is proposed as per Figure 6 below for location. This location is chosen as it complies with setback from the stream as well as being elevated outside the flood zone.

We propose an industrial eco-cycle system which may also be used for the wider community.

This system can cater for up to 14 households with 4 persons per household which is 56 people at 165L/person = 9240L/day peak. The units' drains will be then split between the two primary tanks that will then be disposed via a mounted application field. The system will be controlled dosed and only the engineered daily loading is pumped to the field over 24 hours. And where lot 7 will have its own on lot device.

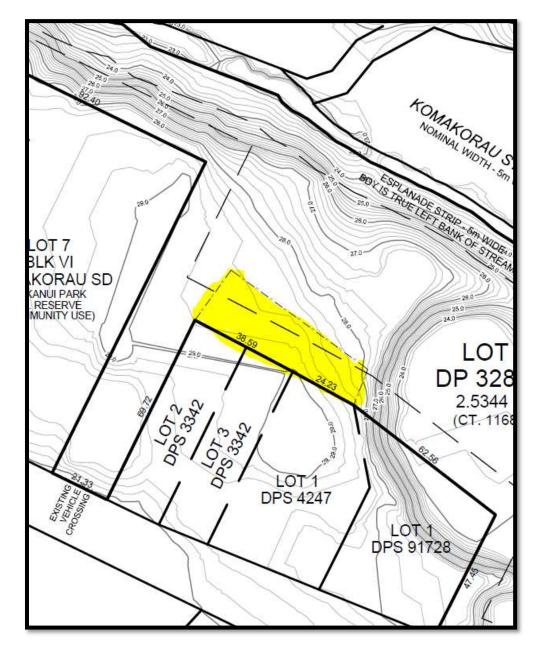


Figure 6: Proposed Wastewater disposal and treatment area.

5.3 Existing Water Supply

There is an existing 100mm diameter UPVC water main running along Gordonton Road which was installed in 1992. Based on the installation date we can assume the infrastructure is still in a good condition.

The site has no existing water connections.

5.4 Proposed Water Supply

We propose a new 63mm diameter rider main to be installed along the new access lot with a flushing valve at the end of the line. Each lot will be serviced via a 20mm connection. As part of the stormwater solution reuse tanks are proposed. Rainwater reuse tanks can provide the

following benefits. Lot 7 will have a 20mm connection coming of the existing main running along Gordonton road.

- Reduces the use of potable water from the public water supply system.
- Reduces the annual volume of water which runs off from the site.
- Reduces peak flows from storm events up to a 10 year ARI event.
- Water can be used for garden, laundry and toilet supply.

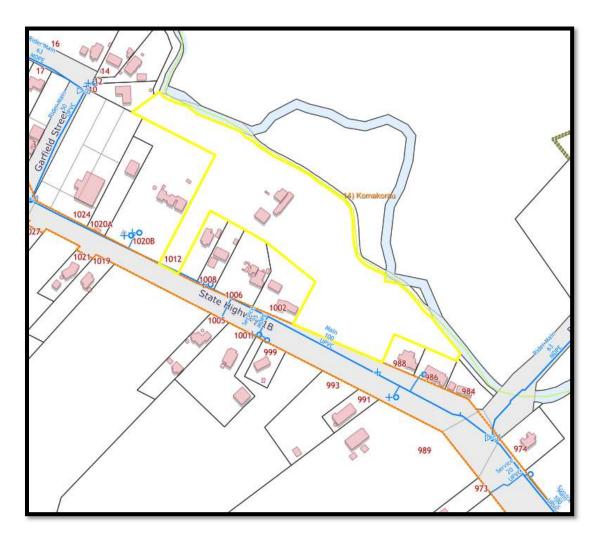


Figure 7: Waikato District Council IntraMaps Existing Water supply.

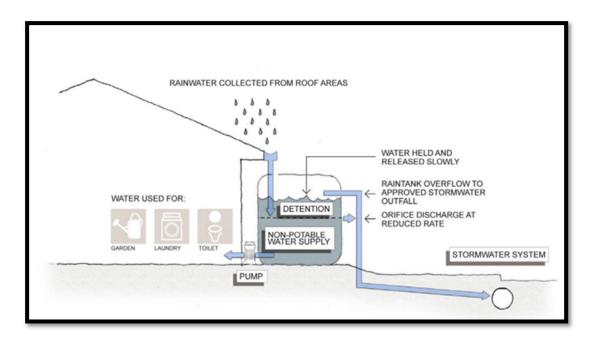


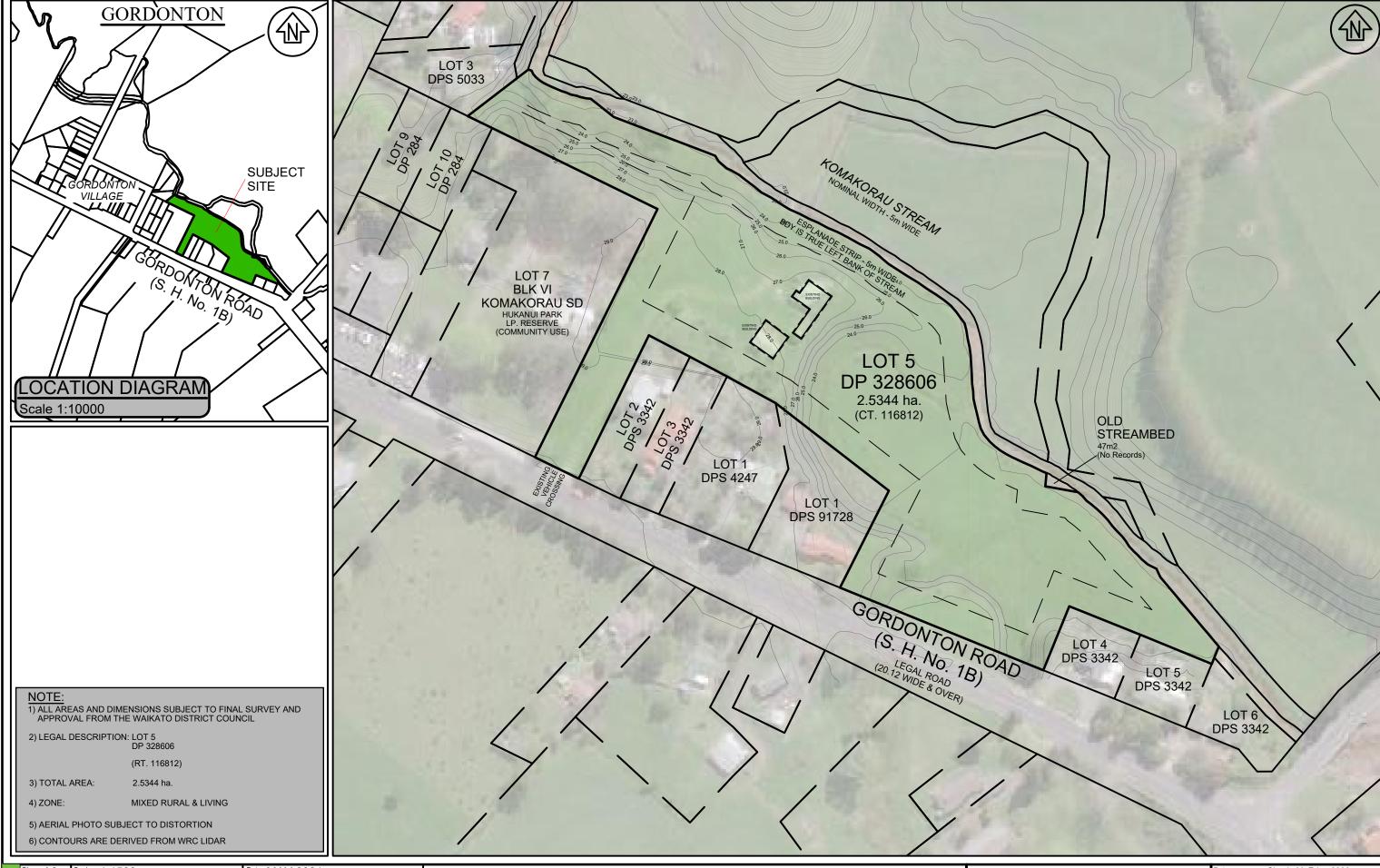
Figure 8: Schematic of a Rainwater Reuse system.

Disclaimer: "This report and attached scheme plan have been prepared purely to provide evidence that a zone change can be appropriate for this site. The exact yield, subdivision design and recommendations may be subject to change once more detailed supporting assessments have been undertaken at the Site."



APPENDIX A

Proposed Scheme Plan



 Size
 A3
 Scale
 1:1500
 Date
 MAY
 2021

 No.
 Amendment
 Init.
 Date
 Designed
 WAB
 06/20

 H
 Scheme Plan For Discussion - Rev #H
 NNR
 03/05/21
 Drawn
 WAB
 4/12/20

 I
 --- --- Checked
 --- Approved

PROPOSED FARM STAY - EXISTING SITE PLAN
LOT 5 DP 328606

1012 GORDONTON ROAD (S. H. No. 1B) - GORDONTON
PREPARED FOR: BF. & DM. YZENDOORN



Catum: Circuit: Mt Eden 2000
Height: Moturiki Datum 1953
Resource Consent Number:

BW Ref. Stg. Purp. Dwg. # Revision:

20048-00-PL-100

