Waipā District Plan
Plan Change Submission Form

Form 5

Clause 6 of the First Schedule to the Resource Management Act 1991

Send to: Waipā District Council, Private Bag 2402, Te Awamutu 3840
Phone: 0800 924 723 | Online: www.waipadc.govt.nz/planchanges | Email: districtplan@waipadc.govt.nz

Please attach additional sheets if there is not enough space for your submissions. If you do not wish to use this form, please ensure that the same information required by this form is covered in your submission.

Note: You must fill in **ALL** sections of this form.
Submissions close **5pm Wednesday, 21 April 2021**

COUNCIL USE ONLY	
Date received	
Document ref:	

1. Submitter details

Full name of submitter:	Papamoa TA Limited Partnership
Contact name if different from above:	Charlotte Muggeridge
Contact phone number(s)	07 834 6670
Email address:	charlotte.muggeridge@harkness.co.nz
Address for service: *(required if no email address is provided)*	Private Bag 3077 Hamilton 3240

We will serve all formal documents electronically via the email address provided above. Where there is no email address provided the documents will be posted to the above address.

2. This is a submission on the following proposed plan change to the Waipā District Plan

Plan Change Number and Name: **Plan Change 13 – Uplifting Deferred Zones**

3. Trade competition

Select one	○	I could	gain an advantage in trade competition through this submission.
	☑	I could not	
Select one	○	I am	directly affected by an effect of the subject matter that – (a) adversely affects the environment; and (b) does not relate to trade competition or the effects of trade competition
	☑	I am not	

4. Attendance at Council hearing

Select one	☑	I do	wish to be heard (attend and speak at the Council hearing) in support of my submission
	○	I do not	

If others make a similar submission, I will consider presenting a joint case with them at the hearing.	☑ Yes ○ No

5. The specific provisions of the plan change my submission relates to are: (give details)			
Select one	◯	I SUPPORT	
	⊘	I SUPPORT IN PART	
	◯	I OPPOSE	

6. My submission is: *(please include the reasons for your view)*

Please See submission attached.

7. I seek the following decision/s from Council: *(give precise details – e.g. what you would like the wording of a specific provision (or map) to be changed to)*

Please see submission attached.

8. Signature of submitter *(note: a signature is not required if you make your submission by electronic means, however please type your name below)*

Signature of submitter: *(or person authorised to sign on behalf of submitter)*	Dated 21-4-21 Hamish Ross - on behalf of Brian Stevenson

Note to person making submission

If you are a person who could gain an advantage in trade competition through the submission, your right to make a submission may be limited by clause 6(4) of Part 1 of Schedule 1 of the Resource Management Act 1991.

Please note that your submission (or part of your submission) may be struck out if the consent authority is satisfied that at least 1 of the following applies to the submission (or part of the submission):

- It is frivolous or vexatious;
- It discloses no reasonable or relevant case;
- It would be an abuse of the hearing process to allow the submission (or the part) to be taken further;
- It contains offensive language;
- It is supported only by material that purports to be independent expert evidence, but has been prepared by a person who is not independent or who does not have sufficient specialised knowledge or skill to give expert advice on the matter.

Personal Information

The information requested on this form, including your contact details, is required by the Resource Management Act 1991. The information will be held by the Council, and you may ask to check and correct any personal information that we hold about you.

Your submission, including your name and contact details, will be made available for inspection at all Council service centres and libraries in accordance with the requirements of the Act. It may also be made available on the Council's website. A document summarising all submissions, including names and contact details of submitters will be posted on the Council's website

If you believe there are compelling reasons why your contact details should be kept confidential please contact the processing planner for this application.

The application for Plan Change 13 (PC13) seeks to uplift the deferred status of the pre-2035 future growth cells within the Waipā Operative District Plan (ODP), which includes the T6 growth cell. It also includes changes to a number of sections within the ODP to provide for site-specific details within these growth cells that have been determined through the structure plan processes.

Brian Stevenson (the Submitter) is in the process of doing due diligence to purchase 164 St Leger Road (held in Records of Title SA9A/288, SA4B/1266, and SA67D/153). This site makes up all of the T6 growth cell located west of St Leger Road. Currently, 164 St Leger Road is identified within the ODP as being zoned Deferred Large Lot Residential Zone. The T6 growth cell is identified in the ODP as being a pre-2035 growth cell. The structure plan documents within PC13 for this growth cell were prepared for Council by Boffa Miskell in June 2020, with input regarding three waters undertaken by Tonkin and Taylor.

There are two key, but separate, matters in relation to PC13 that the Submitter seek to have changed, outlined below under the headings A – Layout of the Structure Plan for the T6 Growth Cell, and B – Subdivision Standards for the Large Lot Residential Zone.

A – Layout of the Structure Plan for the T6 Growth Cell

The layout of the structure plan as it relates to 164 St Leger Road has several features that the Submitter believes are not practical for future development for the site. This includes the position and extent of stormwater reserve (other than that within 23m from the banks of the streams within the site) as well as indicative locations / configurations of the 18m local roads.

A stormwater strategy review of the stormwater management and reserves on the subject site within the structure plan has been undertaken by CKL and is appended to this submission.

This stormwater strategy reviewed the three waters assessment prepared by Tonkin and Taylor in relation to the subject site. It notes that much of the stormwater reserve for the site, other than that relating to the area within 23m of the banks of the streams, appears to be elevated above the stream channel and associated gully system. That means that large parts of the area indicated for stormwater reserve aren't suitable for accommodating stormwater flow or storage for the upstream catchment on the eastern side of St Leger Rd as the land is higher or can't be accessed by that catchment. There is a small catchment on the western side of St Leger Rd, uphill of the proposed stormwater area that is a contributing catchment.

It is noted that Figure 1A of Tonkin and Taylor's three waters assessment identifies the Puniu flood risk area within the T6 cell (taken from WDC GIS maps). This flood risk area does not coincide with the extent of the proposed stormwater reserve.

It is also noted that the Tonkin and Taylor three waters assessment does not mention the need for a stormwater reserve within the land west of St Leger Rd but suggests (2.3.1.2 Stormwater Treatment) that vegetated swales should convey overland flows to the stream channels and that low lying areas of the growth cell are appropriate locations for stormwater bio-retention devices or wetland.

Boffa Miskell's Te Awamutu T6 Structure Plan Context Report notes that the proposed reserve will provide for people's recreational interests, and the protection of landscapes, amenity, ecosystems, cultural and historical values and that they also fulfil an important stormwater management function. It goes on to note the measures that will be used to manage stormwater, none of which include the need for a large area of stormwater reserve. It states that the preliminary design includes high-level stormwater management solutions to ensure that water quantity and quality effects resulting from

future development are appropriately mitigated and accord with best practice. This will help inform more detailed technical assessments that will be necessary to support any subsequent resource consent applications under the District Plan and any regional stormwater discharge permits required under the Waikato Regional Plan and that these will need to be assessed in more detail as and when a more robust technical analysis of cumulative stormwater effects has been undertaken.

The stormwater reserve currently identified within the structure plan for this site would also potentially result in cutting off runoff to tributary waterbodies. This could have adverse ecological and hydrological effects on the tributary waterbodies and their surrounding land.

Changes to the layout of the development of 164 St Leger Road as they relate to the stormwater reserve would then have a knock-on effect to the layout of the roads within the structure plan for this site. Any change to the layout of the stormwater reserve and roads within this property should also be influenced by best practice urban design principles to ensure that these features are not designed in isolation based on specialist input. The urban design influence on the layout should include consideration of Community Protection Through Environmental Design (CPTED) principals, to ensure that quality residential amenity and safety in design outcomes are achieved.

As such, the Submitter requests that the structure plan for the T6 growth cell as it relates to 164 St Leger Road be amended to:

- Remove the two 18m local roads;
- Remove the stormwater reserve area north of the stream that runs east/west through the property that is located beyond the 23m buffer of the stream; and
- Upon removal of the local roads and stormwater reserve area, an overlay should be added to the plan that identifies that:
    - Any application for resource consent to develop the property is subject to stormwater management calculations and design in relation to demand for additional stormwater reserve/s, transportation assessment for road layout, and urban design for overall development layout.

The plan **appended** to this submission shows the changes outlined above that the Submitter seeks to have made to the structure plan for the T6 growth cell as it relates to this property.

<u>B – Subdivision Standards for the Large Lot Residential Zone</u>

The Submitters seeks to address the underlying issues for subdivision in the Large Lot Residential Zone. The zoning for T6 as shown in the T6 Growth Cell Structure Plan hinders the ability for clear differences between the Rural Zone and Large Lot Residential Zone and arguably does not represent an efficient use of land. Compliance with an average net lot area is currently required for subdivision within the Large Lot Residential Zone under Rule 15.4.2.1(j)(i) and (ii).

It is considered that either of the two requirements to provide a larger average net lot area for subdivision within the Large Lot Residential Zone does not represent an efficient use of land. The current description of this this zone, as outlined in Section 3 – Large Lot Residential Zone in the ODP, is as follows:

3.1.1 The name 'Large Lot Residential' reflects the predominantly residential nature of the zone, which has a lower density and a more rural feel than in the Residential Zone. The areas covered in the previous Waipa District Plan by the Rural Residential Policy Area have been incorporated into this zone along with the smaller villages and some proposed new areas. People living in this zone are generally seeking to live in a semi rural environment, while remaining within commuting distance to urban centres.

3.1.2 The location and extent of Large Lot Residential Zones have been defined within Future Proof (the Sub-Regional Growth Strategy) and the Waipa District Growth Strategy (the Growth Strategy). These areas are defined in response to the need to protect high class soils, rural character, reduce the potential for reverse sensitivity and manage infrastructure. Most Large Lot Residential Zones are focused around existing towns or rural villages that have been identified in the Growth Strategy as areas for future growth. However, the Rural Zone (rural residential policy areas) that were identified in the previous District Plan have also been retained; although they are more remote from services, and have not been identified as areas for expansion. Some specific rules in these areas need to be retained to ensure character and amenity is retained.

3.1.3 Large Lot Residential Zone character is different from urban residential and/or rural character. The elements that generally define the District's large lot residential character are:

(a) Views to natural features including flat to rolling terrain, volcanic cones, and water bodies; and

(b) Low density residential built form and residential land use; and

(c) Generally un-serviced with a lack of urban infrastructure such as reticulated water and wastewater systems, and less services such as street lighting, footpaths, and curb and channel road edging than the Residential Zone.

When considering an appropriate density of development in the above context, it would seem that requiring an average net lot area greater than the minimum net lot area (2,500m^2) is an inefficient use of prime peri-urban land.

When considering the desired outcomes for this zone in relation to lower-density residential amenity, the equivalent subdivision standards for the Rural Zone are worth noting. The Rural Zone anticipates an even greater sense of space and openness, yet the smallest lot size for the Rural Zone is 2,500m^2 (Rule 15.4.2.1(r)). There is no requirement for an average lot area for that or any of the other non-site specific subdivision standards in the Rural Zone. As such, it cannot be considered that the requirement to comply with an average net lot area is necessary to achieve the outcomes for space and openness within the Large Lot Residential Zone if it is not also applicable to a zone that is associated with an even greater expectation for a sense of space and openness.

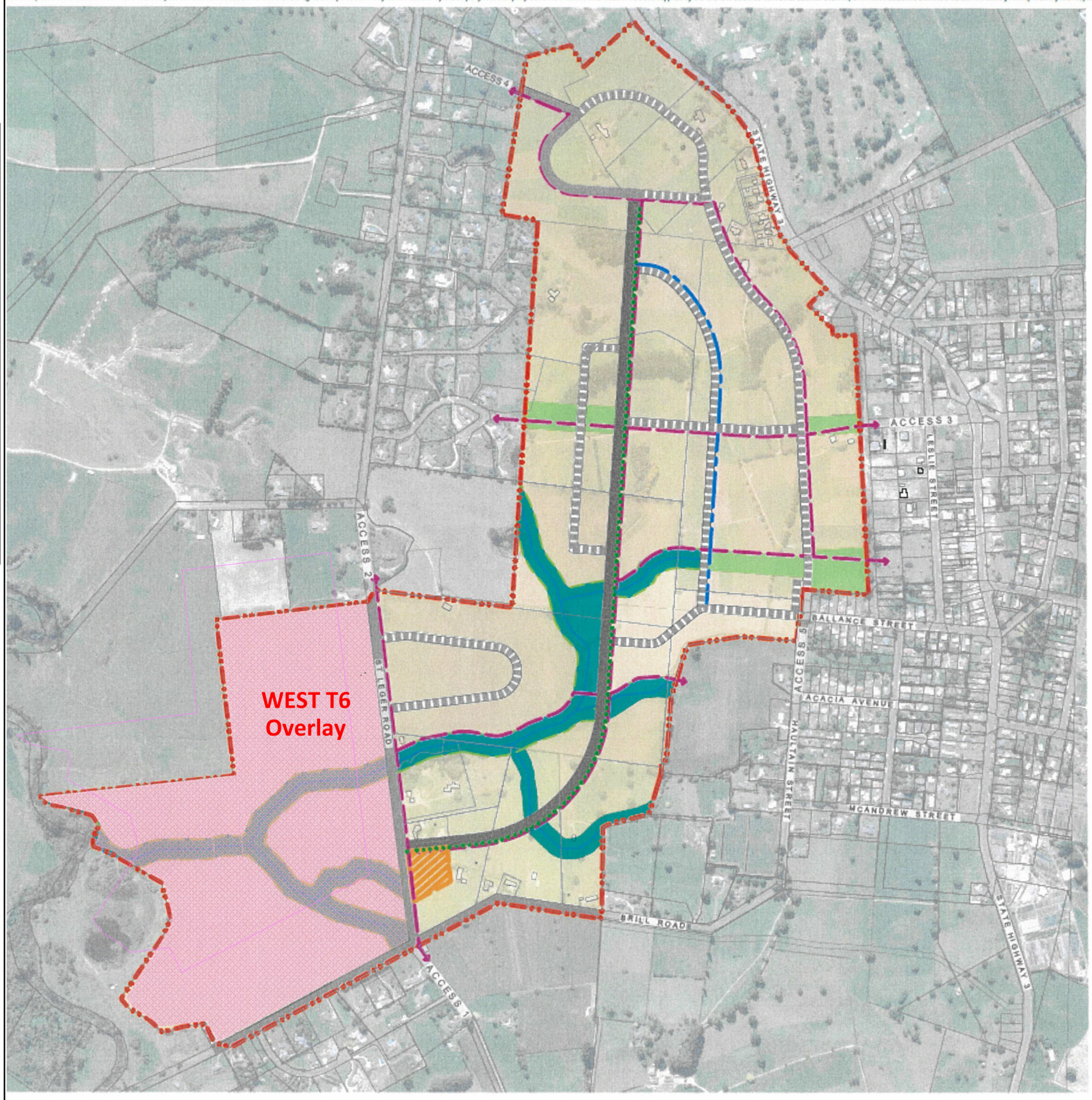
Additional land area is not necessary to ensure development of the future lots can accommodate on-site services, namely wastewater management and disposal and stormwater management and disposal. It is common for an on-site wastewater management and disposal system designed to accommodate a four bedroom household unit to achieve compliant outputs on an approximately 900m^2 property. Allowing for disposal and management of stormwater to occur without interference with that of wastewater still requires an area of less than 2,500m^2.

Therefore, the Submitter seeks to remove the requirement for an average lot area for subdivision of properties within the Large Lot Residential Zone, i.e. delete both Rules 15.4.2.1(j)(i) and 15.4.2.1(j)(ii). The Submitter seeks this is applied to the subdivision rule within the T6 growth cell, as a minimum, i.e. they would not object to this being amended to apply universally to the Large Lot Residential Zone across the District.

Conclusion

The other components of PC13 relevant to T6 are considered to be appropriately worded to accommodate the updated design for this growth cell, and the Submitter considers that these do not require any changes.

Overall, Brian Stevenson supports the proposed Plan Change PC13 in part, subject to the amendments outlined above, and seeks that Council approves the plan change.



LEGEND

- T6 Structure Plan Boundary
- 25m Boulevard / Green Spine Road
- 20m Collector Road
- 18m Local Road
- Shared Pedestrian / Cycle Connections
- Drainage swale along road edge - 6m
- Stream
- Stream Setback - 23m
- Stormwater Reserve
- Neighbourhood Reserve
- Neighbourhood Centre
- Large Lot Residential Zone
- Existing Dwellings

WEST T6 Overlay

Denotes Proposed West T6 Cell Overlay Area

NOTES

REV	DATE	DESCRIPTION

CLIENT Waipa District Council

Te Awamutu T6 Structure Plan

Design MHa

CKL
Planning | Surveying | Engineering | Environmental

Te Awamutu Office
A: 103 Market Street, Te Awamutu
P: 07 871 6144
E: Teawamutu@ckl.co.nz

PROPOSED WEST T6 CELL
OVERLAY AREA
(Brill Road/ St leger road)

Plan of WDC
T6 Structure Plan
Area, Kihikihi

Issue	Description	Checked	Date

		Date
Designed:	HKR	21.4.21
Drawn:	KLC	21..4.21
Checked:	HKR	21.4.21

Scale: **NTS** (A3 Original)

Job No: **C20149** Dwg No: **140** Rev: **0**

FILE: C20149- - -WEST T6 OVERLAY PLAN PLOTTED:2021-04-21 15:27:34

IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of the hearing for Plan Change 13 – Uplifting Deferred Zones of a submission by Papamoa TA Limited Partnership

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STATEMENT OF EVIDENCE OF BRONWYN RHYND

11 June 2021

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1 INTRODUCTION

1.1 My full name is Bronwyn Patricia Rhynd. I am an environmental engineer with over 20 years' experience.

1.2 I hold a New Zealand Certificate in Civil Engineering, a Bachelor of Engineering, and a Masters in Environmental Engineering Science.

1.3 I am a full member of Engineering New Zealand and am registered as a Chartered Professional Engineer as well as being registered on the New Zealand Section of the International Professional Engineers

1.4 I have been made a Fellow of Engineering New Zealand and received this recognition of my contribution to the engineering industry on 21st March 2020.

1.5 I am a member of Water New Zealand and a member of their specialist Stormwater Interest Group. I have been actively involved in this group and recently stepped down from the committee where I spent 10 years organising the annual stormwater conference within New Zealand.

1.6 In 2019 I received the Stormwater Professional of the year award. This award is in recognition of the knowledge and commitment of the stormwater industry in New Zealand

1.7 My expertise is in the water resource area with a focus on stormwater treatment, disposal, and management. I also have experience and expertise in flood and flow regulation. I have undertaken assessments of effects with regard to stormwater and overland flow path management for projects and catchments that are either greenfields

or have established land uses from residential, commercial, and industrial including landfill operations.

1.8 I am currently employed by CKL NZ Ltd, where I hold the position of director and environmental engineer and have held that role since 1 May 2015. Previously, I was employed by Stormwater Solutions Consulting Ltd where I held the position of Managing Director and environmental engineer. I formed this company in 2004 and was the co-director since its inception on 4 September 2004 until merging with CKL NZ Ltd on 1 May 2015.

1.9 I have been engaged by the submitter, Papamoa TA Limited Partnership, to provide stormwater management evidence in respect of Plan Change 13 which seeks to uplift deferred zones.

1.10 My previous experience in the Waikato and Waipa District includes the following relevant projects:

(a) Rotokauri North catchment management plan, Green Seed Ltd, stormwater management plan for structure plan to support catchment wide residential development and private plan change application to Hamilton City Council.

(b) Te Awa Lakes, Horotiu, resource consent application for stormwater discharge in a disused sand mining operation for the purposes of a multi land use development

(c) Haultain Street, Kihikihi; 6.5ha residential development, stormwater management plan and environmental assessment of effects from greenfields to construction phases.

(d) Growth Cell T1, Te Awamutu; stormwater management plan to support private plan change. Included hydrological and hydraulic assessment, design of communal and on lot stormwater management devices to mitigate potential detrimental effects downstream.

(e) Ridgehaven development, Ohaupo; 45 large Lot residential development, including stormwater management plan which included downstream constraints of discharging to a drainage management area and sensitive ecological environment.

(f) Growth Cell T11, Te Awamutu, currently underway with a stormwater management plan for the growth cell including hydrological and hydraulic modelling of the Mangaohoi Stream catchment to assess effects of the fully developed growth cell.

1.11 I confirm that I am familiar with the area of Growth cell T6 and have visited the site associated with the T6 subcatchment west of St Leger Road and north of the tributary of Puniu River.

1.12 I confirm that I have read the 'Code of Conduct for Expert Witnesses' contained in the Environment Court Practice Note 2014 and my evidence to this hearing has been written in accordance with that Practice Note.

2 OUTLINE OF EVIDENCE

2.1 My evidence considers Stormwater management matters with respect to Plan Change 13 and the T6 Structure plan

2.2 I have set out my Stormwater management evidence as follows:

- Review of the PC13 T6 structure plan
- Viability of stormwater reserves
- Proposed amendment to T6 structure plan

2.3 A technical review has been undertaken by myself and CKL staff, under my direction, of the Plan Change 13 Supporting documentation, which was to accompany the submission by my client. This is appended for completeness and used as reference to support my evidence.

2.4 I have reviewed the information available on Plan Change 13 including:

2.4.1 Te Awamutu T6 and T11 Structure Plans, Boffa Miskell, 25 June 2020.

2.4.2 Three water assessment, Te Awamutu T6 and T11 Structure Plans, Tonkin & Taylor Ltd (T&T), August 2019.

2.4.3 The section 42A report; and

2.4.4 The section 32 Report.

3 REVIEW OF PC13 T6 STRUCTURE PLAN

3.1 The T6 structure plan has been developed with stormwater reserves and conveyance systems to support the total growth cell.

3.2 To support the structure plan a high level stormwater management approach has been provided though the T&T three waters assessment.

3.3 The stormwater management requirements for T6 are summarised below.

- On lot water efficiency measure such as detention tanks
- A 23 m riparian margin
- Peak flow control not recommended for the 2yr ARI and higher magnitude rainfall events
- The St Leger Road culvert should be upgraded
- Onsite soakage will need to be tested and designed on a lot-by-lot basis

- If water quality rainfall volume cannot be achieved through water tanks and soakage, then bio-retention device or a suitable wetland will need to be designed.
- Vegetated swales are recommended to convey overland flow
- Avoiding modification to existing channel corridors

3.4 In applying the above requirements, or objectives, to the area west of St Leger Road and north of the Puniu River tributary has highlighted that the structure plan stormwater reserve located in the far western sector of growth cell T6, is either redundant or unable to be utilized to its full extent.

4 VIABILITY OF STORMWATER RESERVES

4.1 The structure plan shows the existing gully and channels are enhanced with a 23m wide riparian margin, and convey flow from within the T6 growth cell towards the Puniu River.

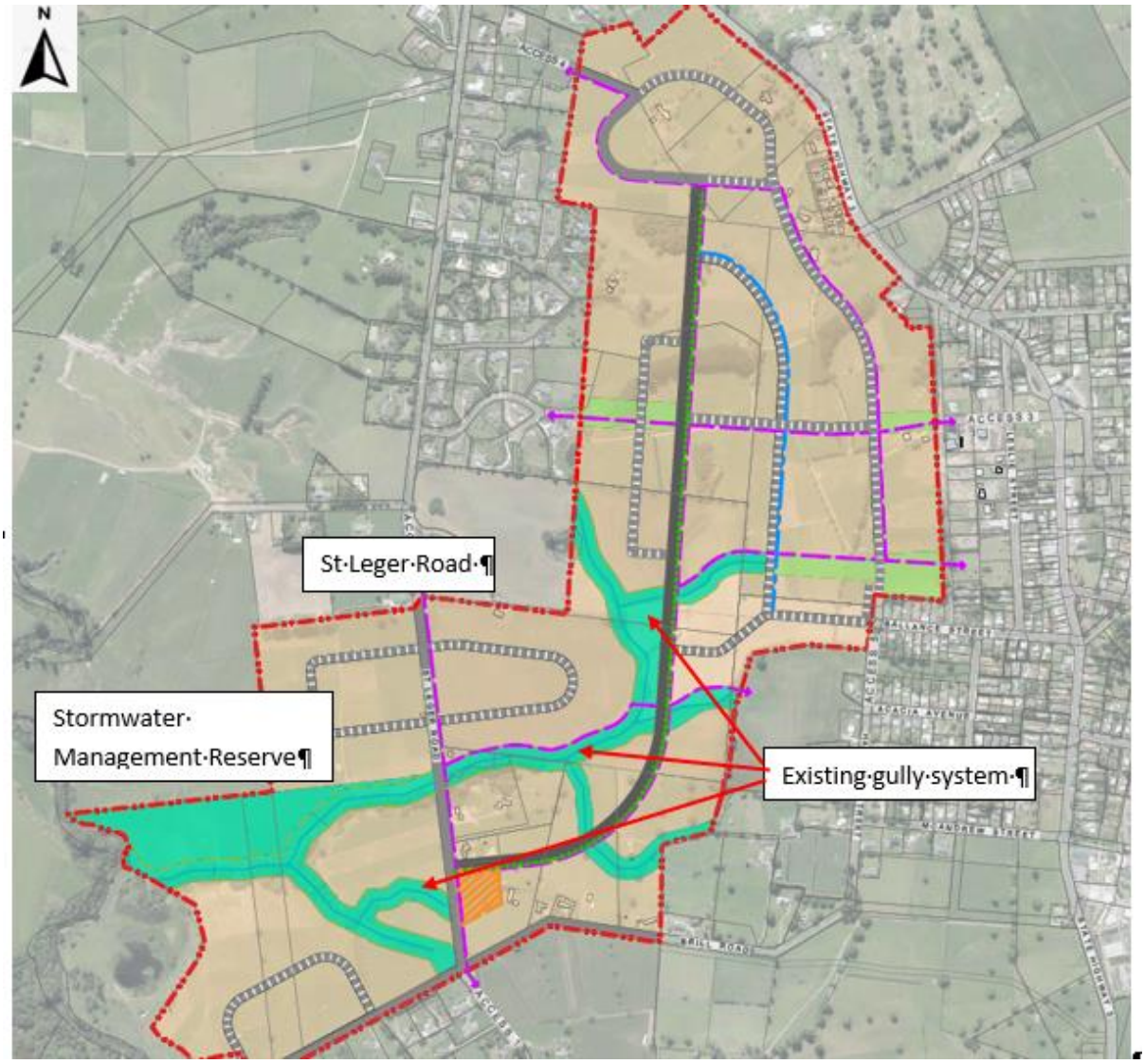
4.2 There is no information within the Three Waters assessment as to how the stream and gully system will utilise the stormwater reserve as the following aspects have not been considered:

- Stormwater management reserve is elevated above the channel and gully system
- The reserve can only receive runoff from the sub catchment west of St Leger Road and north of the Puniu River tributary (tributary) due to topographical constraints
- Should topography allow the stormwater reserve to be implemented then the primary system would bypass tributary and the resultant starvation of the tributary would occur.

4.3 The location of the stormwater management reserve is elevated above the adjacent channel and gully. Therefore, connectivity of the channels and gully system to the stormwater reserve is impractical.

4.4 In addition, there is very little elevation difference between the east and west of St Leger Road ground topography. Therefore, it is considered difficult and ineffective to convey the flow across the St Leger Road and towards the stormwater management reserve.

4.5 The following figure shows the gully system, St Leger Road and the relationship with the stormwater reserve location



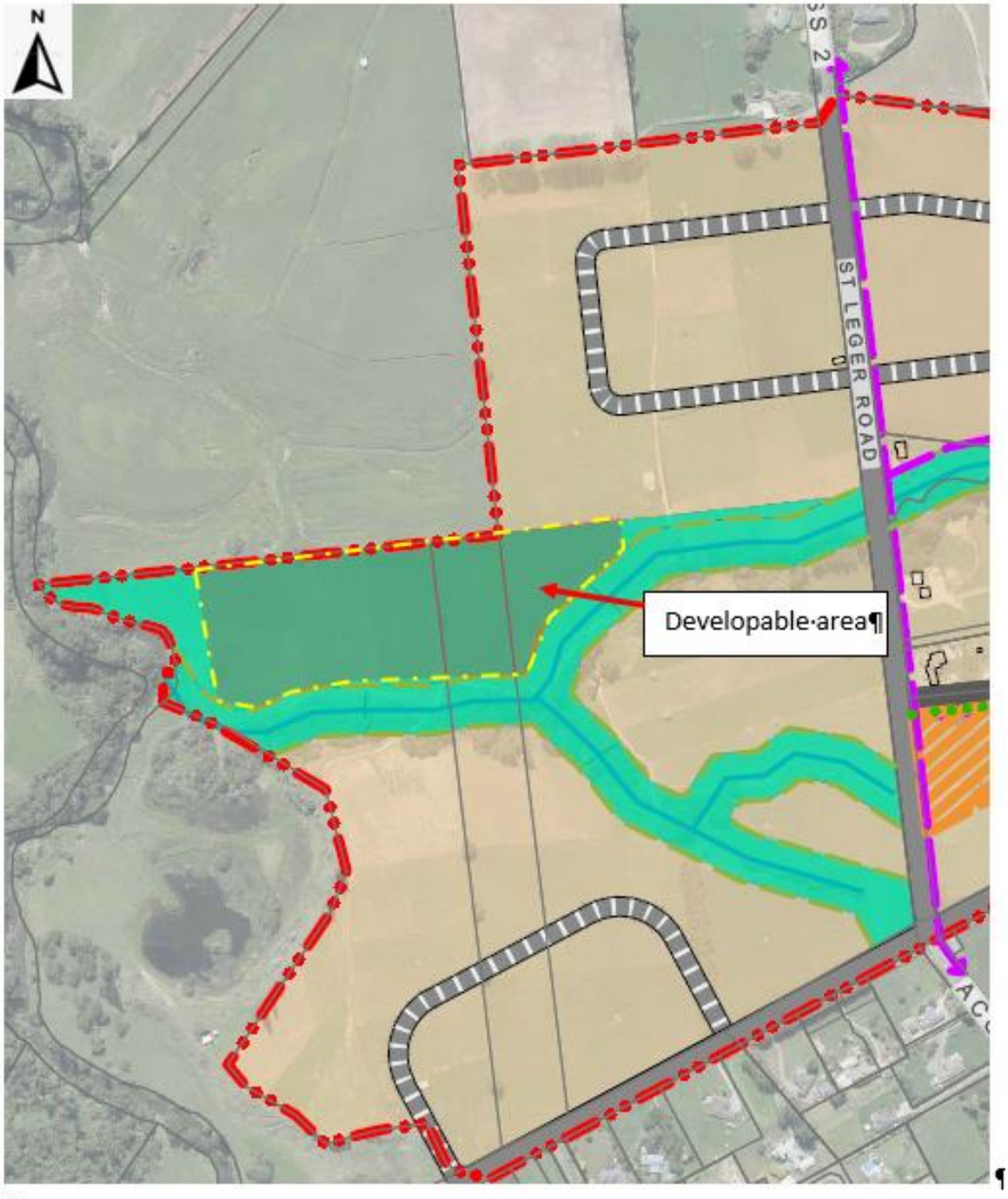
5 Proposed amendment to T6 structure plan

5.1 A review of the structure plan's stormwater management proposed for the sub catchment west of St Leger Road and north of the tributary highlights the following:

- the stormwater reserve is located in an area which is elevated and unobtainable for the majority of the Growth Cell T6.
- stormwater management could be achieved "at source and on lot" for this sub catchment

5.2 Based on these findings this area could have the same development potential as the areas south of the tributary and west of St Leger Road.

5.3 Therefore, the land currently assigned as a stormwater reserve, as presented below, can potentially be developed into future residential subdivision.



5.4 Alternatively, there could be a communal stormwater reserve applied for this subcatchment to accommodate the stormwater treatment and extended detention requirements for this sub catchment only. The area required for a communal stormwater reserve is in the order of 1.6ha (which is approximately 10% of the sub catchment area) and illustrated in the figure below.

6 RECOMMENDATIONS

6.1 I recommend that Structure Plan be amended to:

- accommodate the practicalities of delivering a stormwater reserve to service the T6 growth cell that is east of St Leger Road and south of the tributary.
- Provide for sub catchment stormwater management west of St Leger Road and north of the tributary that includes:
    - On lot and at source management; and/or
    - Communal stormwater reserve

6.2 Should the communal stormwater reserve be deemed best practical option then the Structure Plan stormwater reserve is somewhat smaller than illustrated in PC13 documentation and the remainder of this area returned to residential development potential.

6.3 Should On lot and at source stormwater management be deemed best practical option then the Structure Plan stormwater reserve is removed in PC13 documentation, and this area returned to benefit the residential development potential.

7 CONCLUSIONS

7.1 I have undertaken a review of the stormwater management requirements under the current three waters assessment provided by Tonkin and Taylor Ltd to support PC13 T6 growth cell structure plan.

7.2 The stormwater management reserve located in the sub catchment west of St Leger Road and north of the Puniu River tributary cannot be utilized by the whole T6 catchment due to topographical and hydraulic connectivity constraints.

7.3 The stormwater management for this sub catchment can include a “on lot and at source” approach to ensure that the discharge from this fully developed site will not have detrimental effects on the receiving environment.

7.4 The best practical stormwater management approach could include a communal management device in a reserve area. However, this area will be substantially smaller than the area illustrated in the T6 structure plan.

7.5 I recommend that the area assigned for stormwater management reserve be reviewed and either removed or reduced in size to support a practicable approach to the stormwater management of the contributing sub catchment west of St Leger Road and north of the Puniu River tributary

Bronwyn Rhynd

11 June 2021

MEMO

Planning | Surveying | Engineering | Environmental

To:	Papamoa TA Limited Partnership	**Date:**	19 April 2021
From:	Tony Wang – Engineer	**CC:**	
Reviewed:	Bronwyn Rhynd – Director	**CKL Ref:**	C20149
Re:	**Stormwater strategy review - T6 -164 St Leger Road, Te Awamutu**		

1 Introduction

The purpose of this memo is to provide an overview of the stormwater strategy proposed under the Te Awamutu T6 structure plan for Allot 72 Punui PSH and Lot 2 DPS 85136, 164 St Leger Road.

The stormwater strategy review is based on the following information sources:

- Te Awamutu T6 and T11 Structure Plans, Boffa Miskell, 25 June 2020
- Three water assessment, Te Awamutu T6 and T11 Structure Plans, Tonkin & Taylor Ltd (T&T), August 2019.

2 Structure Plan

We have reviewed the structure plan requirements and assessments to understand the basis of the structure plan development. The sub sections below present the outcomes of the review.

2.1 Te Awamutu T6 Structure Plan -Boffa Miskell

The T6 structure plan has been developed with stormwater reserves and conveyance systems to support the total growth cell. The proposed stormwater management areas which include reserves and stream setbacks is shown in Figure 1.

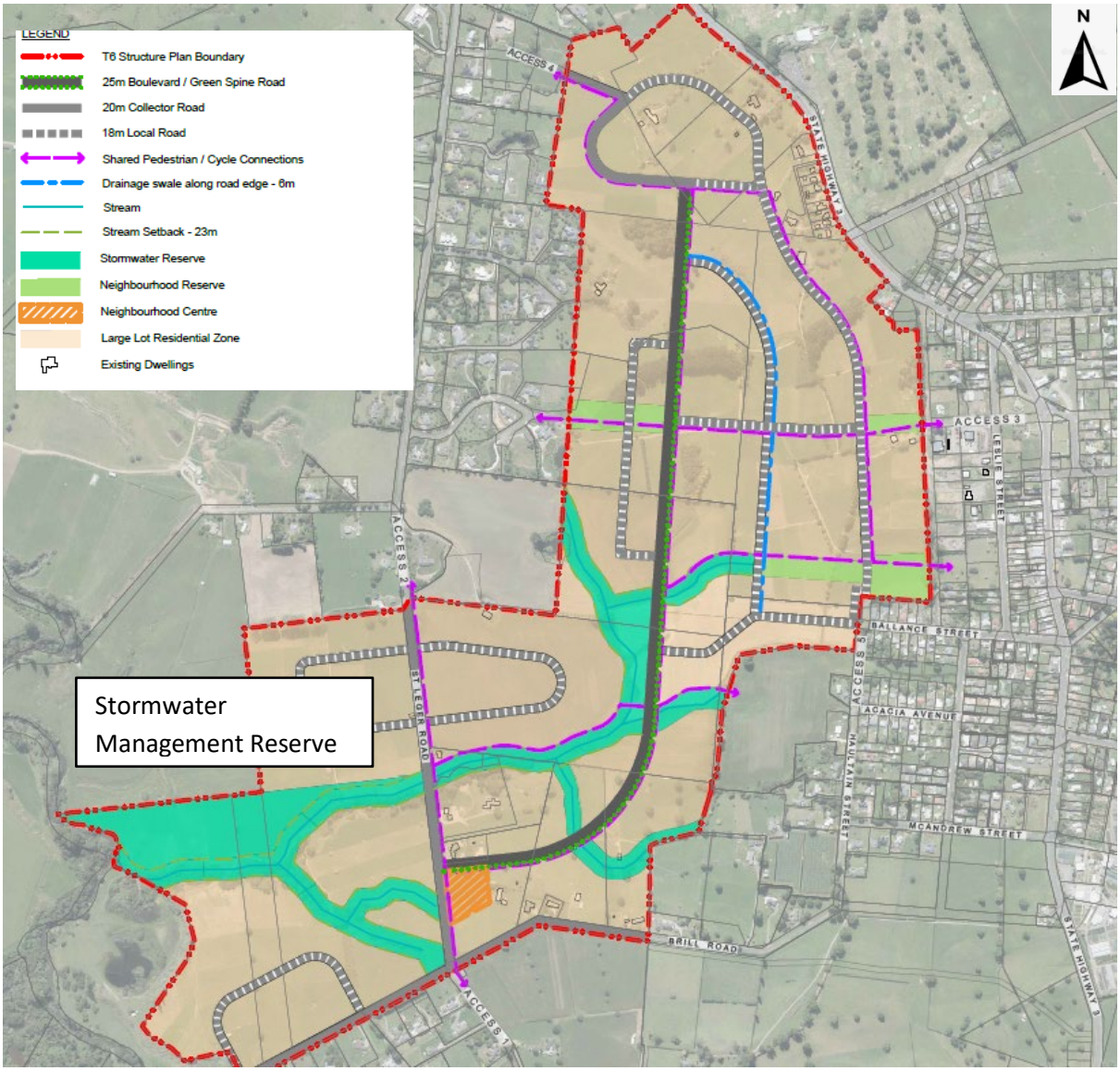


Figure 1: T6 structure plan

The stormwater management and peak flow control requirements are summarised below.

- On lot water efficiency measure such as detention tanks
- A 23 m riparian margin
- Peak flow control of the 2yr ARI and higher magnitude events is not recommended
- The St Leger Road culvert should be upgraded
- Onsite soakage will need to be tested and designed on a lot by lot basis
- If water quality rainfall volume cannot be achieved through water tanks and soakage, then bio-retention device or a suitable wetland will need to be designed.
- Vegetated swales are recommended to convey overland flow
- Avoiding modification to existing channel corridor

2.2 Three Water Assessment – Tonkin and Taylor

The following was recommended under three waters assessment by Tonkin and Taylor

Stormwater

- The St Leger Road culvert should be upgraded.
- Retention, reuse and onsite soakage of the post-development water quality volume will be required to provide stormwater treatment and erosion control. Water tanks for each lot are recommended to help meet these requirements and water supply demands.
- Onsite soakage will need to be tested and designed on a lot by lot basis. Bio-retention devices or a suitable wetland will need to be designed if the water quality volume cannot be achieved through retention, reuse and onsite soakage.
- If on-site soakage investigations show that the post-developed water quality rainfall volume cannot be achieved through water tanks and soakage then bio-retention devices or a suitable wetland will need to be designed.
- Vegetated swales are recommended to convey overland flow.
- Avoid modification to existing channel corridors and an ecological survey is recommended

Flood Risk

- Pass forwarding the 2 year ARI or great event flood flow without peak flow control is recommended.
- The difference between pre and post development total volume for smaller storms up to the 2 year ARI event be retained (rainwater re-use, soakage or bio-retention) where possible.
- It is likely that the pre to post 2 year ARI volume difference will be smaller than the post-developed water quality volume and erosion volume can therefore be managed through stormwater treatment,

3 Comments and proposals

The review of the T6 structure plan and stormwater management objects has set the scene for the application of the stormwater strategy for the sub catchment associated with the area west of St Leger Road and north of the Stream.

An assessment of the stormwater treatment and conveyance together with the site topography has been undertaken to test the applicability of a lower catchment stormwater reserve, within this sub catchment.

3.1 Treatment and Conveyance

Retention, reuse and onsite soakage of the post-development water quality volume will be required to provide stormwater treatment and erosion control. Water tanks for each lot are recommended to help meet these requirements and water supply demands.

Under the structure plan on lot retention tank is recommended and as an example, the indicative tank size required per lot is shown in Table 1. It is considered that retention tanks are be located within the lot boundary. The application of retention tanks should be prioritised to achieve the water supply demands.

Table 1: Indicative retention tank volume

Lot (m^2)	Impervious Area(m^2)[1]	C	WQ Rainfall (mm)	Tank Volume (m^3)
2500	375	0.95	24.5	8.7
3000	450	0.95	24.5	10.5
3500	525	0.95	24.5	12.2

[1] Assumed maximum impervious coverage = 15%

Vegetated swales are considered appropriate to convey overland flows to the stream channels. The swale is likely to be aligned adjacent to roads. It can provide water quality treatment for the road catchment and convey the overland flows towards the downstream receiving environment.

3.2 Site Terrain -topography

The existing gully and proposed channel system are shown in Figure 2. The existing gully and channel are shown as intercepting and conveying flow from within the T6 growth cell towards the Puniu Stream. There is no connection as to how the stream and gully system will utilise the stormwater reserve as the following aspects have not been considered:

- Stormwater management reserve is elevated above the channel and gully system
- The reserve can only receive runoff from the sub catchment west of St Leger Road and north of the tributary due to topographical constraints

In addition should there be a system that utilised a stormwater reserve (should the topography allow) then the primary system would bypass tributary and the resultant starvation of the tributary would occur.

The biggest concern with the location of the stormwater management reserve is that it is elevated above the adjacent channel and gully, see Figure 3. Therefore, it is considered difficult and ineffective to convey the flow across the St Leger Road and towards the stormwater management reserve.

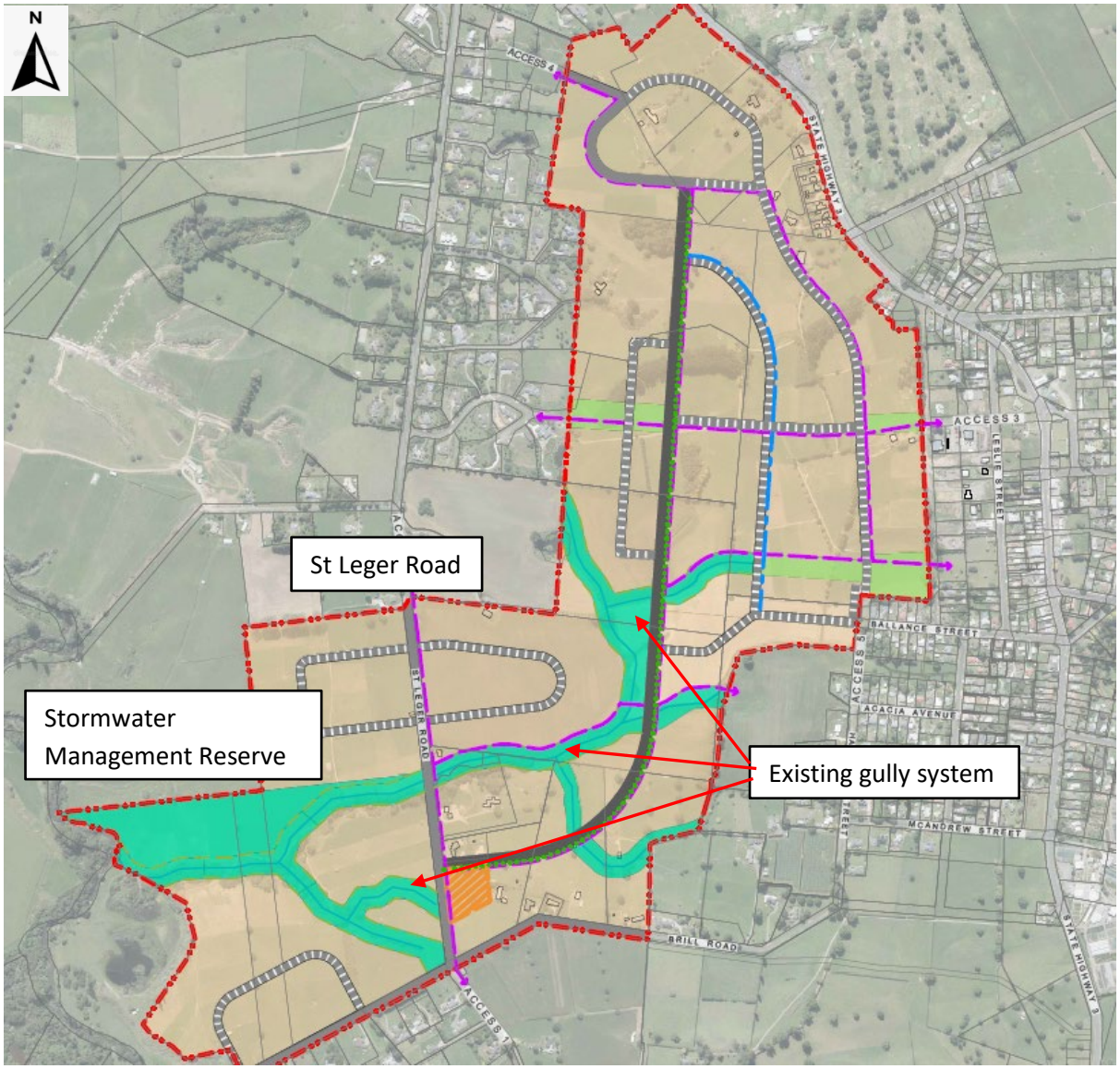


Figure 2: Channel and Gully Locations

Figure 3: Existing site contour

2.3 Potentially Developable Area

As stated in the reporting, as per Section 2, the water quality treatment volume could be achieved at source and on lot. Therefore it is considered that the land currently assigned as a stormwater reserve can potentially be developed into future residential subdivision.

As presented in the Structure plan the sub catchment west of St Leger Road and north of the tributary could have the same development potential as the areas south of the tributary and west of St Leger Road. Therefore, the stormwater reserve is considered oversized.

The land that could potentially be development is show in Figure 4.

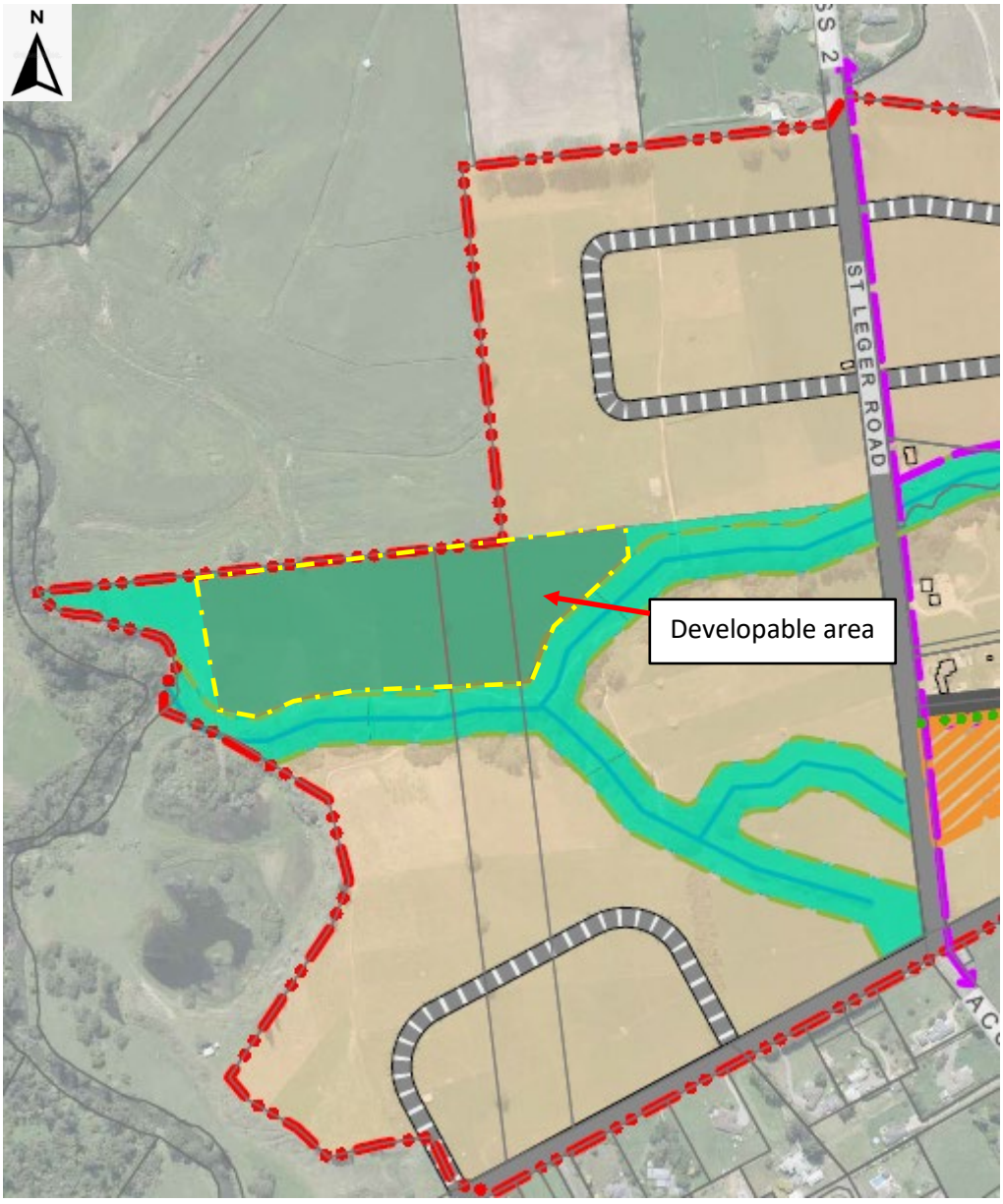


Figure 4: Developable area

Alternatively, there could be a communal stormwater reserve could be applied for the subcatchment west of St Leger Road and north of the tributary to accommodate the stormwater treatment and extended detention requirements for this sub catchment only. This is in the order of 1.6ha (which is approximately 10% of the sub catchment area) and illustrated in the figure below.

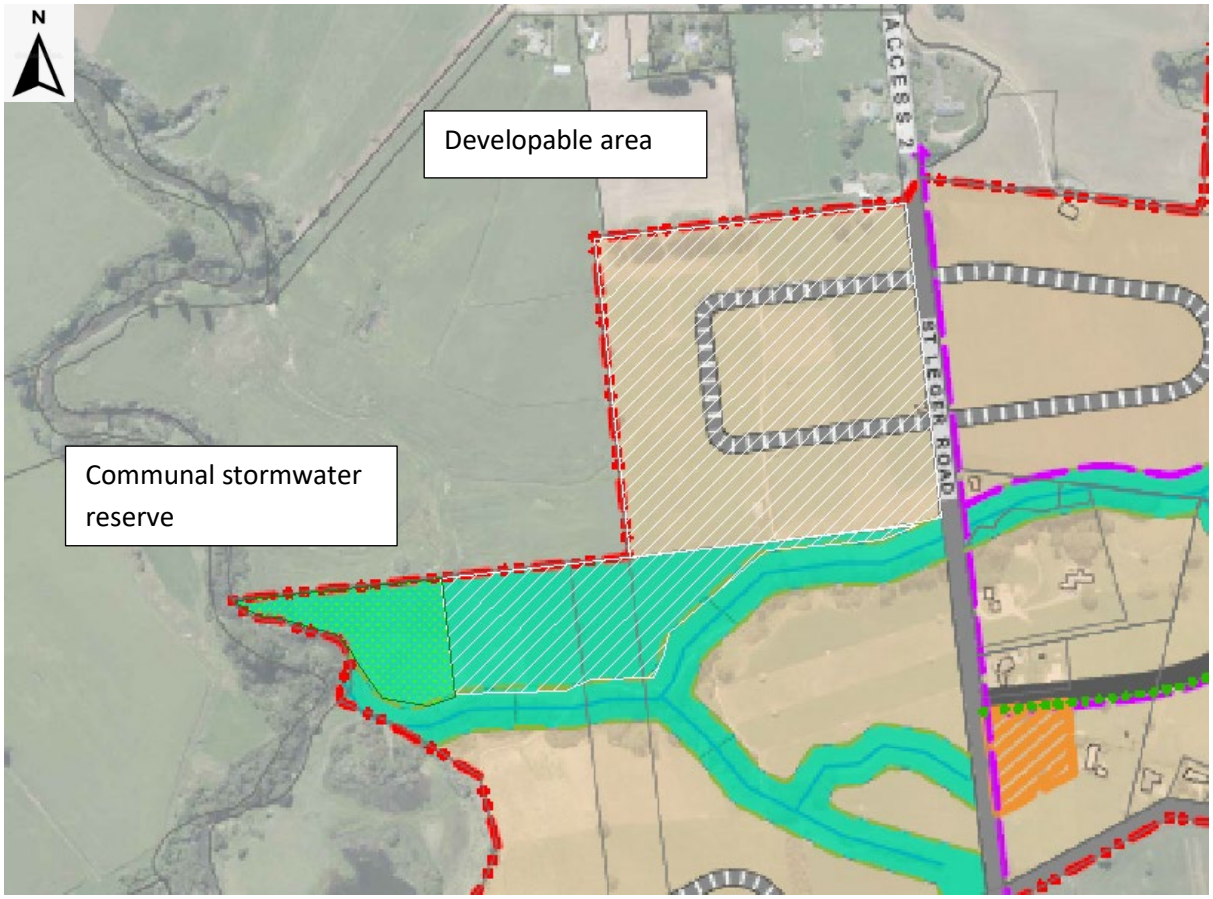


Figure 5: Communal Stormwater reserve

4 Recommendation

It is recommended that retention, reuse and onsite soakage of the post-development water quality volume to be provided on lot.

It is also recommended that the stormwater management and flood risk assessment for the subject site are to be addressed in a sub catchment integrated catchment management plan (ICMP) before the subject site being developed.

IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of the hearing for Plan Change 13 – Uplifting Deferred Zones of a submission by Papamoa TA Limited Partnership

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STATEMENT OF EVIDENCE OF TRACEY ANNE MORSE

16 June 2021

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1 INTRODUCTION

1.1 My full name is Tracey Anne Morse and I am a Senior Planner at CKL Planning | Surveying | Engineering | Environmental.

1.2 I have been employed in resource management and planning related positions in local government and the private sector for 11 years. During this time, I have provided technical and project leadership on a number of small and large development proposals. My work is largely focused on greenfield and brownfield land development and rural and urban subdivision and land use planning.

1.3 I hold a Bachelor of Science (Earth Science) and a Bachelor of Social Sciences (Resource & Environmental Planning) with Honours from the University of Waikato.

1.4 I am a Full Member of the New Zealand Planning Institute (MNZPI).

1.5 I have been engaged by the submitter, Papamoa TA Limited Partnership, to provide planning evidence in respect of Plan Change 13 which seeks to uplift deferred zones.

1.6 My previous experience in the Waipā District includes the following relevant projects:

1.6.1 Tainui Group Holdings Ltd, land use consent to establish a new police station / hub at 2 Fort Street, Cambridge to replace the existing one (located elsewhere

within Cambridge), and associated Section 127 variation of consent conditions to increase the height of the approved telecommunications mast.

1.6.2 Jay El Ltd, pre-application coordination of specialists in preparation of lodgement of resource consent application to develop land within the T11 growth cell in Te Awamutu.

1.6.3 Gauntlett Family Trust, seeking subdivision consent to establish five new Large Lot Residential Zone-type lots over two stages within the T6 growth cell in Kihikihi.

1.7 I am familiar with the site and surrounding environment and have undertaken a site visit.

1.8 I have read the code of conduct for expert witnesses contained in the Environment Court's Practice Note 2014 and agree to comply with it. I have complied with it when preparing my written statement of evidence.

2 OUTLINE OF EVIDENCE

2.1 My evidence considers planning matters with respect to Plan Change 13 and the T6 Growth Cell Structure Plan.

2.2 I have set out my planning evidence as follows:

2.2.1 Amendment of the T6 Structure Plan (Submission Point 26/1); and

2.2.2 Amendment to Rule 15.4.2.1(j) (Submission Point 26/2).

2.3 I have reviewed the information available on Plan Change 13 including:

2.3.1 Te Awamutu T6 and T11 Structure Plans, Boffa Miskell, 25 June 2020.

2.3.2 Three water assessment, Te Awamutu T6 and T11 Structure Plans, Tonkin & Taylor Ltd (T&T), August 2019.

2.3.3 The section 42A report prepared by Ms Hayley Thomas of Waipā District Council; and

2.3.4 The section 32 Report prepared by Ms Thomas.

2.4 It is noted that this evidence is to be read in conjunction with evidence prepared by Mrs Bronwyn Rhynd providing specialist stormwater management in support of this submission.

3 AMENDMENT OF THE T6 STRUCTURE PLAN (SUBMISSION POINT 26/1)

3.1 As noted in the evidence prepared by Mrs Rhynd for this submission, technical evidence to support this submission point had been prepared to be included as part of this submission. However, it was omitted in error when the submission was made to Council.

3.2 The evidence of Mrs Rhynd talks to the aspects of this submission point pertaining to the removal of the stormwater reserve (beyond that sought under the Structure Plan to be provided associated with the Puniu River tributary and drains). Following Mrs Rhynd undertaking a site visit and verifying the site-specific ground conditions, Mrs Rhynd considers that the stormwater reserve identified on the T6 Structure Plan within the far western sector of 164 St Leger Road would not be an appropriate location for a stormwater reserve. There are topographical and hydrological reasons for the position of Mrs Rhynd.

3.3 The T6 Structure Plan prepared by Boffa Miskell as is currently included within Plan Change 13 is based upon a broad, high level review of the wider T6 growth cell. This Structure Plan has not been developed based on detailed site-specific specialist assessments to determine the most appropriate locations for roading infrastructure.

3.4 A site-specific layout design would be influenced by specialist input regarding stormwater management, transportation, and urban design / Community Protection through Environmental Design (CPTED) matters.

3.5 At present, other than the preliminary stormwater management assessment undertaken as outlined by Mrs Rhynd, no such site-specific assessment by specialists in any of these fields has been undertaken for this property.

3.6 In addition to being based upon site-specific technical inputs, any such site-specific development layout would seek to achieve and be consistent with the design principals and outcomes sought for the T6 Growth Cell as outlined within the report prepared by Boffa Miskell for the Structure Plan.

3.7 There is a potential for the layout of future development of this property based on the amendments sought for the stormwater reserve outlined in paragraph 3.2 above and further site-specific specialist inputs to result in a deviation from the T6 Structure Plan prepared by Boffa Miskell. This deviation may be beyond the extent of the “in general accordance with” flexibility afforded by Rule 15.4.2.69 of the Operative Waipā District Plan (ODP).

3.8 The changes sought to the T6 Structure Plan by this submission point seek to decrease the potential consenting risk to any future developer of the site.

4 AMENDMENT OF RULE 15.4.2.1(J) (SUBMISSION POINT 26/2)

4.1 Our initial view was that the points raised in this submission are within scope. We note that we have not sought our own legal opinion as to scope or viewed Council’s legal advice as to scope on this matter.

5 RECOMMENDATIONS

5.1 I recommend that submission point 26/1 be accepted and that the T6 Structure Plan as it relates to 164 St Leger Road be amended to:

5.1.1 Remove the two 18m local roads;

5.1.2 Remove the stormwater reserve area north of the stream that runs east/west through the property that is located beyond the 23m buffer of the stream; and

5.1.3 Upon removal of the local roads and stormwater reserve area, an overlay should be added to the plan that identifies that:

- Any application for resource consent to develop the property is subject to stormwater management calculations and design in relation to demand for additional stormwater reserve/s, transportation assessment for road layout, and urban design for overall development layout.

6 CONCLUSIONS

6.1 The T6 Structure Plan as outlined within Plan Change 13 was prepared based on broad, growth-cell wide assessment. As such, there are changes that will arise at the time that site-specific specialist assessments are undertaken to support the development of properties within the growth cell.

6.2 In relation to 164 St Leger Road, it is considered that there is a fundamental issue with the large stormwater reserve north of the stream that runs east/west through the property that is located beyond the 23m buffer of the stream.

6.3 Development of this property based on site-specific specialist assessments have a potential to result in deviation from the T6 Structure Plan beyond the scope of "in general accordance with", as indicated by the preliminary assessment of the above-mentioned stormwater reserve.

6.4 Providing the flexibility sought through submission point 26/1 would ensure that appropriate development, based on detailed, site-specific assessments addressing stormwater management, urban design, and transportation matters, is not subject to increased consenting risks as a result of deviation from the T6 Structure Plan prepared by Boffa Miskell.

6.5 I recommend that the T6 Structure Plan, as it relates to 164 St Leger Road, be amended as requested.

Date: 11 June 2021

TRACEY ANNE MORSE