

PC34 – INFRASTRUCTURE ASSESSMENT

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THE REMARKABLES PARK PRIVATE PLAN CHANGE – SERVICING CAPABILITY

1.0 INTRODUCTION

The purpose of this report is to identify the servicing needs for the Remarkables Park Zone (RPZ) and confirm that the development enabled by the area covered by the Remarkables Park Private Plan Change (Plan Change 34) can effectively be serviced.

It is understood that there are 13 Components to Plan Change 34. Component 1 is the only one of the 13 components that may have implications with regard to servicing for the RPZ. This component includes adjustment of the boundaries of Activity Areas 4 and 6 within the RPZ, in order to increase the size of Activity Area 5 for the purposes of enabling Large Format Retail (LFR) activities and to rezone a small pocket of Airport Mixed Use (AMU) immediately to the north of the existing Activity Area 5. The changes proposed for this component are as shown in the Structure Plan attached.

2.0 WATER SUPPLY

Water supply to the RPZ is currently from the Kelvin Heights Reservoir. It is provided to the RPZ by way of a 200mm diameter watermain through Lucas Place and another 200mm diameter water main laid up Robertson Street where both mains connect and then diverge again to a 200mm diameter water main along Hawthorne Drive. This is laid to the end of the existing Activity Area 5 and then by way of a ring main around the perimeter of that existing Activity Area to the New World supermarket where it is connected through to the 200mm diameter main laid in Riverside Road. In addition to these existing facilities, servicing developments which already have consent and proposed future Queenstown Lakes District Council (QLDC) upgrades to the existing water reticulation system are planned, and will provide the necessary supply for development within the RPZ.

With the anticipated development of buildings for LFR purposes the existing 200m watermain along Hawthorne Drive can be extended along the extension of Hawthorne Drive into the Eastern Access Road. It is difficult to speculate on whether there will be any difference in demand as a result of Plan Change 34, given the existing RPZ and AMU zoning already currently enables a wide range of commercial, recreation, residential uses and buildings. This assessment can be properly made at the time that resource consent applications are made and a specific analysis is undertaken by a fire engineer with regard to the particular use of each building compartment in any of the LFR buildings to meet any demands in excess of the available water supply classification.

In terms of future capacity, current proposals for the construction of a new Frankton Flats reservoir together with Frankton Flats ring mains will provide flow to the proposed development. Further during the construction of the extension to the Queenstown Airport runway in 1998, a number of 160mm diameter ducts were laid under the runway extension to provide for the possibility of a watermain and other services being extended from Glenda Drive.

In summary, the development anticipated by Plan Change 34 can be serviced with water supply from the existing watermains and the proposed QLDC upgrades to the water reticulation network.

3.0 WASTEWATER

The bulk of the existing commercial area of the RPZ drains to the Kawarau Falls wastewater pumping station located off Remarkables Crescent. From here it is pumped around to the Frankton Beach pumping station on the edge of the Frankton Arm of Lake Wakatipu. Part of the lower residential area of the RPZ drains to a small pumping station Remarkables Park Pump Station 1 (RP1) located at the southern end of the RPZ and close to the Kawarau River.

The long term plan is that the latter pumping station will be modified and upgraded when the rising main will be redirected from pumping to the Kawarau Falls Pumping Station to a new pumping station Remarkables Park Pump Station 2 (RP2), to be located generally in the area adjacent to the existing farmhouse within the RPZ. The lower area of the RPZ including Activity Area 3, some of Plan Change 34 and parts of the lower commercial area now being developed will drain to this upgraded pumping station RP1. The remaining area that is subject to Plan Change 34, and the upper areas of the RPZ, will drain to the new pumping station RP2, which will also be at the top end of a rising main from RP1. It is planned that pumping station RP2 will then pump by way of a rising main through an existing 375mm duct under the Queenstown Airport's runway extension to the east, or around the Eastern Access Road currently under construction as part of the RESA construction at the eastern end of the main runway. Whichever option is used, the main will be connected into a trunk main planned by Council to be laid along the northern side of the Queenstown Airport.

In the 2009-2019 QLDC Community Plan provision is allocated within the wastewater CAPEX for the upgrade of Frankton Beach to Shotover Ponds Trunk Main and for works relating to the wastewater upgrades within the RPZ.

4.0 STORMWATER

The stormwater from the existing commercial area within the RPZ is directed through two outlets located off the end of Copper Beech Avenue into the farmland owned by RPL. All the stormwater from these existing areas will be treated and discharged into a primary and secondary stormwater system for later discharge through an outlet into the Kawarau River.

Because of the land slope of generally about 0.5%, in other than the river terraces in a south westerly direction, all stormwater from the area subject to Plan Change 34 will at some stage need to discharge into the Kawarau River either through Activity Area 3 and 2a and/or by way of an alternative location about 800m downstream through Activity Areas 7 and 2a.

Plan Change 34 anticipates the development of LFR within an extended Activity Area 5. Although this proposed development may result in an increase in stormwater runoff when compared to the existing commercial buildings and other activities permitted in those parts of Activity Areas 4 and 5, all stormwater runoff, from hard surfaces, including car parks and roads, can be appropriately managed with a range of stormwater treatment systems. These systems may include swales, ponds, filtration and rain gardens designed for specific applications at the subdivision and/or building consent stage. These treatment devices will also ensure that pollutants such as hydrocarbons, heavy metals and rubbish etc are removed or treated to acceptable levels prior to discharge and will ensure stormwater runoff (volume) is appropriately managed.

The proposed stormwater management and treatment systems can be required as conditions of any subdivision consent approvals. The systems can be either installed as part of the subdivision works or consent notices could be lodged on the Titles, requiring the systems to be

designed and installed at the Building Consent stage when the design and layout may be more adequately determined.

The proposed measures will ensure that there are no significant adverse effects on the Kowarau River, and that the discharges fall under a permitted activity within the ORC: Water Plan. This requires treatment to a level that ensures, after reasonable mixing, the discharge does not give rise to all or any of the following effects in the receiving water:

- the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials;
- any conspicuous change in the colour or visual clarity;
- any emission of objectionable odour;
- the rendering of fresh water unsuitable for consumption by farm animals;
- or any significant adverse effects on aquatic life.

5.0 CONCLUSION

Plan Change 34 provides for amendments to land use within existing zoned areas. It is not apparent at this time whether this use will require more or less servicing than the existing zoned uses. Suffice to say that should they require more services, existing and proposed infrastructure will be available for that purpose. In particular in addition to existing services, forward planning is currently being undertaken by the QLDC in respect of the water supply to the Frankton Flats area and also for the future improvements to the existing wastewater trunk mains system. This will ensure that the proposed Plan Change 34 can be satisfactorily serviced to QLDC's standards with both water supply and wastewater reticulation.

As the stormwater reticulation and disposal is completely within the area of the RPZ, treatment, re-use and disposal of stormwater is contained within the site and does not require the input of any other landowners or the QLDC other than through the subdivision consent approval process.

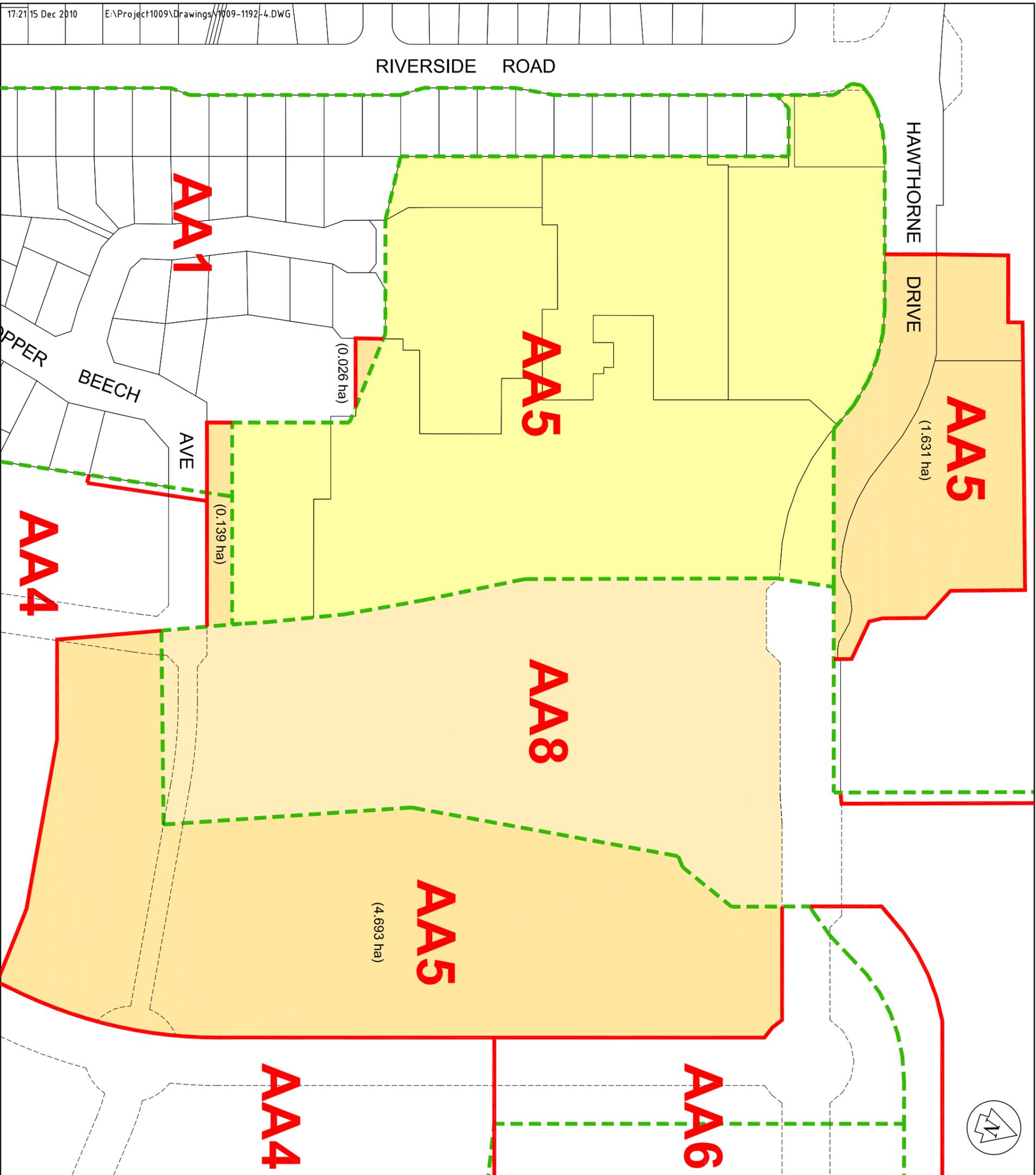
I therefore consider that the level of development enabled by Plan Change 34 can be satisfactorily serviced by existing and proposed infrastructure including in the long term with the necessary upgrades to the QLDC's reticulation which is intended to occur as the development of the RPZ proceeds.

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Reviewed by: Murray Smith MIPENZ (Civil), CPEng

Signed: 

22 December 2010

Attachment: Remarkables Park Proposed Zone Activity Area Adjustments 1009-1192-2a



Plan Change No. 34
 Remarkables Park
 Zone Activity Area 5
 Adjustments

- LEGEND**
- Existing Cadastral Boundary
 - - - Proposed New Cadastral (Road) Boundary
 - - - Existing RPZ Activity Boundary (RM090321)
 - Proposed RPZ Activity Boundary
 - Existing RPZ Activity Area 5 = 6.550 ha
 - Proposed RPZ Activity Area 5 = 6.489 ha
 - Existing RPZ Activity Area 8 = 3.996 ha

Note:
 (1) Areas and measurements are subject to a LINZ approved Cadastral Survey.

Scale : 1:2000 (A3)
 Date : December 2010



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