
Sorell draft Local Provisions Schedule Hearing

Further Information -Gary Kingston (19, 22, 23)

Introduction

This further information is provided by Dr Lee Peterson, Principal Consultant, Nicholbrook Pty Ltd in regard to the Sorell Council response to representations received during the public exhibition period for the draft Sorell Local Provisions Schedule.

Planning Authority Response

The Council response was as follows: *While this representation has been submitted relating to two properties, as has been demonstrated within Figure 8, these properties are part of a much more substantial land holding.*

The submissions were made in relation to the entities that own the properties, whether they are collectively managed is irrelevant. The Land Mapping project parameters treated each title individually as ownership and management can and does change what is relevant is the land system of a title and what it is capable or not capable of sustaining in relation to agricultural activities and the immediate surrounds.

Furthermore the Constraints Analysis initially reviews a titles Enterprise Suitability, if it does not meet ES1-5 then the process is to consider the potential constraints for the title being used or amalgamated with adjoining title(s). This ONLY considers the adjoining title(s) the process is not contiguous across the landscape. Titles not adjoining are not to be considered nor are land holdings further afield whether under the same ownership or management.

Criteria 1 Land Size

- Council response: *The land area greater than 10ha. This is classified as unconstrained.* This response has been applied to the majority of the representations in respect to Agriculture Zone but it is the key factor that has been incorrectly determined and has been overlooking in this and other representations.

- The constraints analysis undertaken in the original land mapping project considers Enterprise Suitability as follows:

Enterprise Suitability (ES)	Enterprise	Minimum title size (ha)
1	Horticulture (grapes, stone fruit etc)	10
2	Vegetable	25
3	Dairy	40

The response *The land area is greater than 10ha* implies that all titles 10ha or greater meet ES1 requirement, this is frequently not the case in the Bream Creek region especially on the mid to high slopes of the Ragged Tier.

ES1-3 are contingent on irrigation potentially available, if irrigation is not potentially available the minimum is ES 4, 133ha suitable for dryland cropping.

The Land Mapping project determined that much of the Carlton River and Bream Creek/Marion Bay region has irrigation potential hence consideration of ES1-3. This determination was modelled based on the presence of rivers and streams, soil types within a region and the Enterprise Suitability Mapping data set. No consideration was given to the current use limitations, land owner uptake, the water allocations, security of resource, water quality, hydraulic requirements and economics of irrigation development, all factors that are required for irrigation scheme development successful business case for both by government or on farm. A more detailed region specific presentation is given below.

Inconsistency in Council Assessment

Representation 26 -, Jacobsons proposed zoned Agriculture, was reviewed by Council and recommended to be changed to Rural on the basis of no potential irrigation, limited agriculture use and presence of threatened tree communities.

However the adjacent property in Representation 23, PID 7839837 is a continuation of the same land form but to even higher elevations and has exactly the same issues, no potential irrigation, limited agricultural use and the same threatened species communities continuing onto this property but has been recommended by Council to remain as Agriculture.

Topography Constraints

As mentioned above one of the considerations in regard to the Enterprise Suitability determinations is the Enterprise Suitability Mapping data sets. The key ESM data set that encompasses much of The Ragged Tier is Sparkling Wine Grapes, this is based on climate modelling and assumes water for irrigation is available and therefore not a limiting factor, this is incorrect for much of the region, especially the higher slopes which are uneconomic in respect to pumping costs as detailed below.

Additionally much of the ESM determined as “well suited” to Sparkling Wine Grapes has high slopes and rocky outcrops when investigated on ground.

The data set of landslip risk has not been recognised in the Constraints analysis. During ground truthing by the author, much of The Ragged Tier medium to high slopes have significant landslips occurring where present as established pasture and could not be considered for any horticultural development or cultivation. Many areas are not sustainable long term as pasture and should be encouraged to have permanent mixed species vegetation.

Significant larger areas of the slopes of The Ragged Tier are not sustainable for agricultural production yet they have been deemed ES1.

Existing areas of plantation forestry should only be selectively harvested to avoid mass movement.

Examples of landslip areas present are shown below these areas are present across a number of property owners, all who have been proposed zoned Agriculture.



Recent landslips CT150735/1



Continuing landslips occurring on CT 59/1334



Ongoing landslips on CT 103575/2



Fenced area to limit stock access and promote natural stabilization of active landslip area, grazing potential low as a result

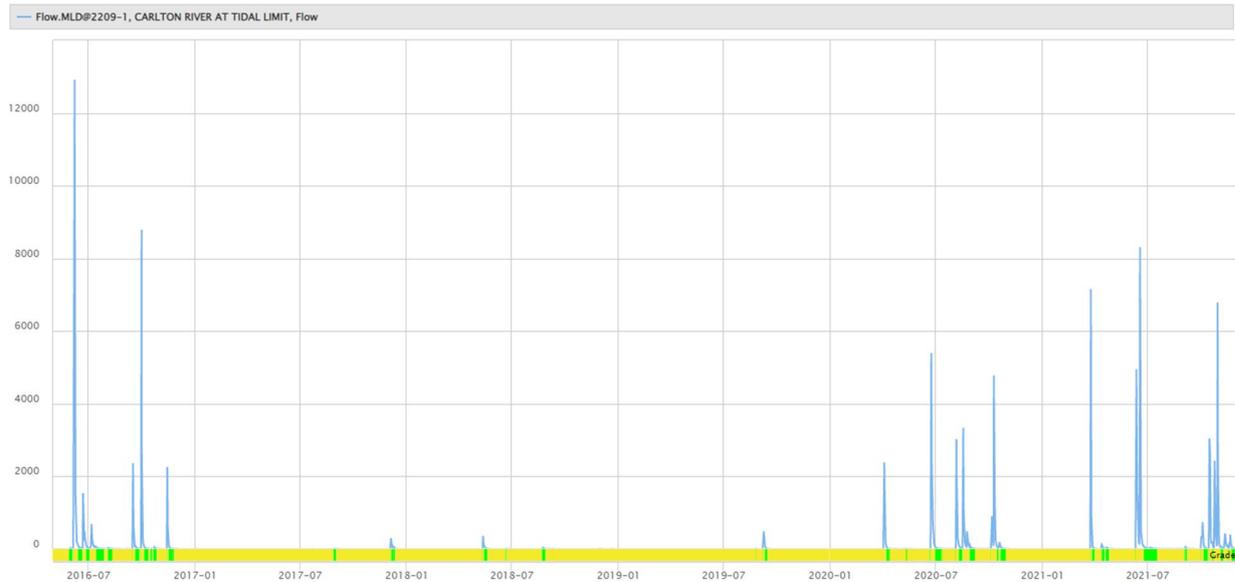
The landslip areas commence on 20% slopes that are generally above 140 metres elevation. Many of these slopes increase further to over 30%. These areas cannot be considered as suitable for viticulture.

There are a number of landcare funded plantings on The Ragged Tier for landslip management.

Irrigation Potential – Tasman Catchment

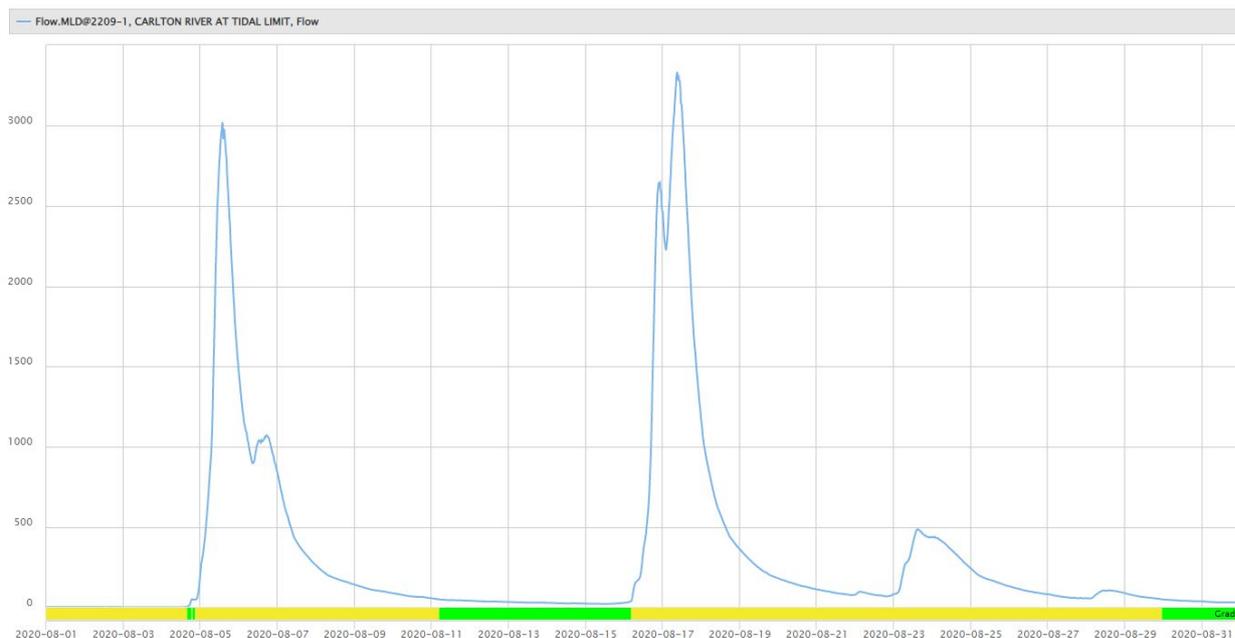
The Dunalley, Kellievie, and Copping regions are within the catchment of the Carlton River, one of only 2 rivers in the Tasman Catchment.

There is a streamflow monitoring station at the tidal limit (2209). Historical average is 62ML/day (1970-95, 02-07) however there can be extended periods of low to no flow. In 2008 there were 330 days of zero flow. For the periods 2016, 2017 and 2018 inclusive there were only 3 flow events each only lasting 24 hours at 300-400 ML per day. The 2017 single flow event occurred outside of the extract period.



Similar multiple year periods of insufficient flow for extraction have been recorded.

High flow events are short duration as the river is unregulated. During the extraction period (1 May to 30 Nov) high flows typically only last 24-36 hours.



Consequently costly infrastructure for extraction would have to be designed to pump large volumes of water quickly when it is available.

There are current water licences in the catchment of the Carlton river but the utilisation for irrigation is low. The soil types and topography are not conducive to irrigation development. The valley system is narrow unlike the Coal Valley that has broad plains and low slope regions with moderate to well suited soil types for irrigation.

The South East Irrigation Schemes do not irrigate any areas above 80 metres elevation due to the energy requirements of pumping. Areas below 80 metres elevation in the Kellievie, Copping and Dunnalley regions with suitable soil types for irrigation are very limited.

The further impediment to irrigation potential from the Carlton River is the water quality.

The last DPIWE annual Waterways Report produced was in 2009 . This indicated the Carlton River at the tidal limit to have a minimum of 809 EC, median of 1495 EC and a maximum of 2,950 EC. The Median value is some 200 EC points higher than the highest recorded salinity of the Coal River at Richmond Weir which has been deemed unsustainable in the future for irrigation.

The Bream Creek/Marion Bay region is separated from the Carlton catchment by The Ragged Tier, it is greater than 3km from the Carlton River. For water to be supplied from the Carlton River it would have to be pumped over an elevation of 120m at the lowest point in the saddle of the tier. This is 20m higher than the highest pumping point of the South East Irrigation Scheme.

The eastern side of The Ragged Tier has a number of small streams that drain to Marion Bay, all having small catchment areas. There are water licences being utilised from these streams to irrigate the flat plains behind Marion Bay. There is currently only 17ML of water license left unused and available from the Ragged Tier Eastern catchment. Such a volume is only sufficient for approximately 8ha of vines or 4ha of fodder for dairy.

Presence of bores with irrigation potential (>10l/s) within 3 km was also a criteria for potential irrigation. There are no bores that exceed this flow rate in the Bream Creek/Marion Bay region.

Therefore there is no significant further irrigation potential in the Bream Creek/Marion Bay region other than what is currently irrigated which is predominantly fodder for dairy production and a couple of small vineyards.

Based on these factors the *Consideration of the Potential Agriculture Land Initial Analysis* is incorrect in the Bream Creek/Marion Bay region and requires review in respect to Potential Irrigation Area which is fundamental to the Enterprise Suitability Analysis and Constraints determination for Agriculture zoning.

Declaration

I declare that I have made all the enquiries which I consider desirable or appropriate, and no matters of significance which I regard as relevant have, to my knowledge, been withheld.

Dr Lee Peterson B. Agri. Sci (Hons), ISHS, MAICD, CPag
Principal Consultant
Nicholbrook Horticultural Consulting
February 2022