

VICTORIAN CIVIL AND ADMINISTRATIVE TRIBUNAL

ADMINISTRATIVE DIVISION

PLANNING AND ENVIRONMENT LIST

VCAT REFERENCE NO. P1382/2006
PERMIT APPLICATION NO. M/2004/1079

CATCHWORDS

Application under section 149 of the *Planning and Environment Act 1987* to review a **decision to refuse consent** required by permit condition. The appropriateness of rainwater tanks as a stormwater detention system.

APPLICANT	Brendan Ricci
RESPONSIBLE AUTHORITY	Maroondah City Council
SUBJECT LAND	19 Highton Street, Ringwood East
WHERE HELD	Melbourne
BEFORE	Anthony Liston, Senior Member
HEARING TYPE	Hearing
DATE OF HEARING	8 September 2006
DATE OF ORDER	12 September 2006
DATE OF REASONS	17 October 2006

Ricci v Maroondah CC [2006] VCAT 2051

ORDER

The order of the Tribunal is made for reasons which will be provided at a later date.

The decision of the Responsible Authority in relation to condition 10 of permit M/2004/1079 is set aside. A stormwater drainage system incorporating a 3,000 litre rainwater tank for each dwelling, permanently plumbed for the purpose of toilet flushing and available for the watering of the gardens, is satisfactory for the purposes of the condition. Each tank must incorporate a permanent 20 millimetre diameter drain (to the garden or to the drainage system) capable of continuously discharging the upper most 500 litres of each tank's storage capacity.

A P Liston
Senior Member

APPEARANCES:

For Applicant

Mr Simon Merrigan, Town Planner of
Millar & Merrigan P/L, witness:
Associate Professor Peter Coombs, Engineer.

For Responsible Authority

Mr Mat Sherwell, Maddocks Solicitors.
Witness:
Mr David Karwan, Engineer.

REASONS

- 1 The applicant Brendan Ricci is currently developing land at 19 Highton Street, Ringwood East pursuant to planning permit No. M/2004/1079. The permit allows the Applicant to construct one dwelling at the rear of an existing single storey weatherboard dwelling. Condition 10 of the permit provides:

Each lot shown on the endorsed plans must be drained to the discharge point specified by the council's Engineering Department, to the satisfaction of the Responsible Authority.

- 2 Council's Engineering Department requires an on site detention system to be installed to be satisfied about the drainage of the land for the purposes of the condition. The Applicant resists this on the following ground:

That the development proposed under permit M/2004/1079 does not require a detention system as it has a site coverage (defined by the proportion of a site covered by buildings) less than 35% as per council's letter of 16 May 2006

- 3 Council responds that, regardless of the definition of 'site coverage' in the Scheme, the Condition requires drainage to be to the "satisfaction of council" and that, in the circumstances of this case, the requirement for an on site detention system is appropriate.

History

- 4 The original proposal essentially consists of the construction of one additional dwelling adjacent to an existing single storey weatherboard dwelling and the subdivision of the site into two lots
- 5 The proposal was initially refused by council however, a subsequent hearing at the Victorian Civil and Administrative Tribunal resulted in an order granting the application for review and directing council to issue a permit.

Basis of Decision

- 6 Mr Merrigan argued the case on behalf of his client in three ways ie:
 - i Condition 10 should be interpreted to mean that the Responsible Authority's power, arising from the condition, is limited to the specification of a discharge point, or alternatively;
 - ii If condition 10 empowers the council to require the drainage of the land to its satisfaction, the criteria for the estimation of stormwater detention, should be 35% site coverage as defined by the planning scheme, and not 35% impervious surfaces, or alternatively;
 - iii The use of rainwater tanks to supply toilets and for outdoor use, is an acceptable mechanism for stormwater detention.

7 During the course of the hearing, I advised Mr Merrigan that in my view, the condition, although badly drafted, does require that the drainage of the land be to the satisfaction of the Responsible Authority. Moreover I concluded that notwithstanding the reference to 35% site coverage in Clause 22.03-3,

- the general nature of the discretion embodied in condition 10,
- the underlying technical basis for stormwater detention in areas such as this, and
- the broader infrastructure objectives of ResCode,

enables council to seek to rely on the 35% impervious surfaces criteria. Although in this context it is clearly unsatisfactory that Clause 22.03-3 refers to 35% site coverage, and it is important that council in assessing stormwater drainage, and the need for detention systems, does so on the basis of a transparent process, and clearly specified policies.

8 Having formed this conclusion, this leads onto the assessment of the appropriateness of rainwater tanks as a stormwater detention system. Mr Karwan was not essentially arguing that rainwater tanks could not act as a stormwater detention system, rather, he was concerned about the ongoing effectiveness of rainwater tanks as a detention system whereas in his opinion a conventional detention system operates as designed once it is installed.

9 Rainwater tanks systems only function as detention systems, if the tanks are not already full, at the onset of the storm event. Professor Coombes models both rainfall and water consumption to derive the performance of a particular rainwater tank system from a stormwater detention perspective. In the particular circumstance in this case Professor Coombes concluded:

This study has analysed the stormwater discharge regimes from a development site at East Ringwood in Victoria. Pluviograph rainfall for Croydon was used in the PURRS continuous simulation model to investigate the use of rainwater tanks that supply toilet and outdoor uses to mitigate stormwater discharges. The use of 3kL and 5kL, rainwater tanks can reduce stormwater peak discharges from the developed site to less than the discharges from the site with 35% impervious surfaces. The use of the 3kL and 5kL rainwater tanks with water efficient appliances will also reduce annual average household water demands by 87kL (34%) and 90kL (35%) respectively.

10 Mr Karwan was concerned about variables which could degrade the performance of the rainwater tank system from a stormwater detention perspective, for example, he asked what if:

- i The dwelling was vacant (ie, the residents were on holiday) at the time of the storm event;
- ii What if the number of occupants of the dwelling was less than that relied on in the modelling of the system;

- iii What if the system was not properly maintained.
- 11 Professor Coombes response to these concerns was that the design of stormwater detention systems is essentially probabilistic, and each catchment contains a large number of individual households. The likelihood that there would be vacant dwellings, with full tanks, at the time of the storm event in sufficient numbers to significantly effect the performance of the catchment as a whole is very low indeed.
 - 12 Rainwater tank systems do require a greater degree of maintenance than perhaps a conventional detention system, but they are not inherently complex, and they are increasingly commonplace. Maintenance is unlikely to be an insuperable obstacle to the adoption of these systems.
 - 13 In relation to these concerns of the council, I suggested to the parties that a possibility would be to allow for some part of each tank's capacity to be freely draining, so that there was always a minimum volume available for short term detention. Professor Coombes indicated that in some municipalities in NSW this was an approach adopted, and he supported it if it aided in ensuring the acceptability of rainwater tank detention systems even though he was of the opinion that from his analysis such an arrangement was essentially unnecessary.
 - 14 In my view planning policies directed towards environmental sustainability, and the management of infrastructure, indicate that there should be a preference for rainwater tank "detention" systems, over and above conventional single site stormwater detention systems, because of their capacity to deliver additional environmental benefits. Indeed the usefulness of such systems for stormwater detention is secondary to their primary role in the more efficient usage of water. I therefore decided to make the order set out above, adopting the compromise discussed in Paragraph 13 above.

A P Liston
Senior Member