

Survey Tool:

Have your say

16 June 2024

Tool Status	Archived	Contributor Details		Survey Response		
Visitors	11	Date of contribution	Login (Screen name)	Are you supportive of the proposed amendments to the Stormwater Drainage Connection Policy?	Please take a few moments to tell us why/why not.	Would you like to be kept updated on this Policy?
Contributors	6	Jun 27 24 07:09:11 pm	Anonymous	Unsure	All you need to do is send a team of two and a small truck to clean up all the blocked storm water culverts covered with leaves, bracken, and sometimes small shrubs growing there	No
Registered	0	Jun 28 24 08:39:19 am	Anonymous	Yes		Yes
Unverified	0	Jun 28 24 12:32:57 pm	Anonymous	Unsure	I am concerned that the reducing of the 1:10 year planning of the event to 1:100 will reduce the responsibility of the planners who will do developments at the top of my street. I have previously had stormwater inundation in my house. On heavy storms sometimes excess water goes onto my property from the pathway and roads. There is increasing coverage of blocks in my area with i hard surfaces. As necessary large developments are planned on East Parade the risk is that my water inundation will recur with the new developments and as weather events are worsening I am wondering at the meaning of hte change to a lower number in the amended plan.	Yes
Anonymous	6	Jun 29 24 02:05:58 pm	Anonymous	Yes	The rubbish leaves etc block the draws.	Yes
Admin	0	Jul 02 24 12:24:09 pm	Anonymous	Yes	Street sweeper needs to attend more often to clean up leaves from street trees. The leaves do not breakdown and most residents do not sweep them up and dispose of in their green waste- clogging the storm water drains.	No

SUBMISSIONS	6	Jul 03 24 04:49:27 pm	Anonymous	Unsure	<p>The proposal does not take into consideration, Federal, State, City of Vincent, infrastructure and land.</p> <p>For example: Beatty Park Aquatic Centre was extended in 2013. After the extension and added roof area the drainage was insufficient. During rain events pit lids were blown off and houses were being flooded from drainage water cascading from Beatty Park Reserve into the rear of their properties. Land on Beatty Park Reserve was excavated and a separate large drainage pipe was run across Beatty Park Reserve and connected to the Claisbrook main drain near Charles Street.</p> <p>Commercial, Industrial and Residential storm events. What figures are used in calculations if a development is commercial on the ground floors and residential on all other floors, the policy does not explain this adequately.</p>	Yes
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Survey Responses Graph

Are you supportive of the proposed amendments to the Stormwater Drainage Connection Policy?	
Yes	3
Unsure	3

Would you like to be kept updated on this Policy?	
Yes	4
No	2

I have three issues with the revised policy:

- Using the flood ARI instead of the rainfall ARI
- Increasing the ARIs without adequate justification
- Applying different levels for residential and commercial land.

ARI used

The policy defines the Average Recurrence Interval (ARI) in terms of flooding rather than rainfall.

While on first view this might seem relevant (we're worried about floods), the reality is that this is simplistic and not the correct measure. The correct measure is a rainfall event (called a storm event in the current policy).

While low points may experience periodic flooding, flooding ARI events are most relevant along river and stream boundaries – they are not relevant on the tops of hills. The Swan River has ARI data that reflects the river height, and therefore the likelihood of flooding on adjacent low-lying areas. While this may have some relevance on the small area of Vincent immediately adjacent to the river just north of Banks Reserve, it is of little relevance to areas such as North Perth or Mt Hawthorn. It does not make sense to make decisions based on potential flooding along the river when that flooding may just reflect the high rainfall in the 125,000 square kilometre Swan-Avon catchment rather than what has fallen in the Perth metropolitan area.

The most appropriate measure is a rainfall-based ARI, which is different to a 'flood ARI'. In any case, I expect that a flood ARI would be measured in metres above sea level – how would that be applied to a block in North Perth.

The 'definition' section should be modified to say that the ARI is based on rainfall. It should also explicitly identify the source of this data so that anybody can see how much stormwater they need to retain on site.

Increased ARI values.

There has been no adequate justification for increasing the requirements for residential and commercial properties, or for having greater requirements for commercial properties – just saying that there will be an increase in storm events is not sufficient.

The beauty of specifying something like a 1:20 ARI is that the actual value will change over time to reflect any long-term change in rainfall patterns. So, the amount to be retained in 2030 may be greater than was required in 1980, but the expectation would be that stormwater would not be retained on site only once every 20 years on average.

Simply saying that the ARIs should increase to reflect more intense rainfall events misunderstands the use of ARIs.

Different requirements for residential and commercial

While I understand why the current policy differentiates between residential and commercial, I think, on reflection, that the justification is not correct. It was based on the requirements imposed on the Water Corporation's licence, and on the assumption that commercial properties have greater hardstand than residential properties, thus had a greater potential for runoff, and on the fact that the Water Corporation had to provide drainage to broad-scale areas without being able to control the level of retention on individual lots.

I can't see why there should be any different requirement imposed based on land use. The requirement should be uniform, such as 'you must retain a 1:20 ARI of one hour duration'. The fact that different developments may have different amounts of impervious cover should not differentiate the requirement – it simply differentiates how much retention should be built in.

I would expect that, at building licence time, the City would look at the total surface area of a lot and multiply that by the nominated ARI level, to give the total rainfall that would fall on a lot in a one hour period. It would then look at mitigating factors such as deep soil zones. These would provide reductions in the amount that would be required to be retained on site. I would also expect that the reductions would reflect the fact that soil gets water-logged and has reduced absorption capacity (e.g. x cubic metres of water may fall on the deep soil area but only a fraction of that will be absorbed).

Such an approach seems logical and is not dependent on land use, simply on the nature of development. So a residential development, that covers most of a lot, may have a similar retention requirement to a commercial lot next door, and not some significantly reduced requirement as the current/draft policy requires.

Also, only applying the requirements on residential, commercial and industrial uses misses out on other uses – what about schools, public utilities etc.

I think that clause 2 of the policy should simply require 'on site retention capable of accommodating a minimum 1:20-year ARI of one hour duration' and drop the residential/commercial/industrial differentiation.

Possible precedent

The City should be developing a policy that covers City owned/managed land (e.g. sporting facilities). The City of Stirling seem to have developed such a policy to help guide them and to provide some certainty to the community.

When adopting the revised policy, it must be recognised that the level you set now for private development should be the same level you eventually accept for City managed development. If you want private entities to provide 1:100 ARI retention, you must accept that the City will ensure 1:100 ARI retention.