

## **PROJECT UPDATE**

**January 29, 2016**

### **FLOOD EVENT HIGHLIGHTS NEED FOR STORMWATER PLAN**

The major rainfall event that hit Adelaide last Friday (January 22) highlighted the need for an effective stormwater management plan to be implemented across the Brown Hill Keswick Creek catchment.

Adelaide received about 30 minutes of heavy rainfall of varying intensity, with major watercourses of the Brown Hill Keswick Creek catchment among the areas affected.

Significantly, the Bureau of Meteorology rainfall gauge at Scotch College adjacent to upper Brown Hill Creek recorded rainfall intensity equivalent to a one in 100 year frequency.

Also in the Brown Hill Creek catchment, the Hawthorn gauge recorded a one in 50 year frequency, while intensities at several other stations relevant to the catchment recorded frequencies equating to one in five or one in 10 year events. All frequencies were for a 30-minute storm.

Such intensities and storm duration would be expected to produce large stormwater flows from the urban part of the catchment, depending on the extent of catchment area affected.

As a result, Brown Hill Creek immediately upstream of Cross Road in Hawthorn flowed at near full capacity, and there were reports of several house garages being flooded from creek breakout.

Glen Osmond Creek in Wayville caused flooding of one house (up to half a metre water depth inside) and the yard areas of several other houses. Keswick Creek also flowed at near full capacity in places.

In relation to upper Brown Hill Creek, the flooding was entirely due to stormwater runoff from the urban part of the catchment. There would have been little, if any, runoff from the rural part of the catchment due to the short duration of the storm.

The total amount of rainfall that fell during the storm would have been insufficient to overcome the capacity of the very dry rural catchment to absorb rainfall before any runoff occurred. This confirms the need for any flood mitigation solution for upper Brown Hill Creek to include creek capacity upgrade works, and shows that in events like this a flood detention dam in the upper catchment would provide no benefit.

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