

Rupanyup and Dunmunkle Creek Flood Intelligence Card

Flood travel time							Stormwater flooding time from start of rain to flooding 2-3 hours			
							Riverine flooding time from start of rain to steep rise in floodwater 30 - 18 hours			
							Time between Glenorchy and Rupanyup peak 22 to 40 hours			
							Flooding duration: 2 - 3 days			
Wimmera River at Eversley gauge height 415207 (m)	Wimmera River at Glynwylln gauge height 415206 (m)	Wimmera River at Glenorchy gauge height 415201 (m)	Average Recurrence Interval (ARI)	Glenorchy Design Flows Warracknabeal study 2017 (ML/d)	Dunmunkle Creek damages (excluding Rupanyup) total number (above floor)	Rupanyup damages total number properties flooded (above floor)	Consequences/ Impact	Houses/ buildings flooded / isolated	Roads Impacted	Action Actions may include (but not limited to) Evacuation, closure of road, sandbagging, issue warning and who is responsible
		4.00	Glenorchy minor flood level 2 year flood	7,000			Flooding along Dunmunkle Creek is driven by high flows in the Wimmera River, with the Wimmera River distributing water to Dunmunkle Creek (in less than a 5 year flood) upstream of Glenorchy. Several stock and domestic channels influence drainage and floodwater.			
		4.50	Glenorchy moderate flood level	10,757						
		4.68	5	14,531	403 (0)	0 (0)	Flooding in upper Dunmunkle Creek in less than a 5 year flood (14,000 ML/d). No major assets are likely to require flood protection. Flooding of upper Dunmunkle Creek is likely to impact minor and major roads. There may be shallow overtopping of the Stawell-Warracknabeal Road. Flooding only reaches Hopefields Road, not reaching Rupanyup due to a lack of volume.		Stawell-Warracknabeal Road depth 0.05m Ridd Road depth 0m Horsham-Lubeck Road depth 0m Ashens-Jackson Road depth 0m C Readings Road depth 0m Wimmera Highway depth 0m	
		4.80	Glenorchy major flood level	18,830						
4.72 m (19,136 ML/d)	8.26 m (40,460 ML/d)	4.81	September 2010 10 year flood	19,884	541 (0)	2 (0)	In addition to break out flows from the Wimmera River at the Dunmunkle Creek offtake, floodwater overtops Campbells Bridge Road at several locations and flows into Dunmunkle Creek. Some flow is directed toward the Richardson River system. Several overland flow paths occur at Glenbrook Road, re-enter Dunmunkle Creek at Marsdale Road. Flooding reaches Rupanyup.		Stawell-Warracknabeal Road depth 0.16m Ridd Road depth 0m Horsham-Lubeck Road depth 0.14m Ashens-Jackson Road depth 0m C Readings Road depth 0.04m Wimmera Highway depth 0m	VICSES activate ground flood observers as needed. Council clear debris from waterway crossings, drains and culverts to reduce blockages.
3.91 m (10,658 ML/d)	6.56 m (17,444 ML/d)	4.89	September 2016 20 year flood	25,020	738 (0)	10 (0)	Deeper flooding may cause access/egress to dwellings to be cut. Consider closing Dunmunkle Creek crossings. Floodwater may reach north of Habels Road. Provide warning to residents along Dunmunkle Creek impacted by flooding. Extensive flooding occurs where Dunmunkle Creek intersects Stawell-Warracknabeal Road may cut access.	x13 buildings isolated and/or flooded below floor; 217 Glenbrook Road, x5 Stawell-Warracknabeal Road (1435, 2432, 2683, 2786, 4280), 18 Ridd Road, x2 Marsdale Road (19, 21), 105 Bryntirion Road, 96 Wimmera Highway, 32 Boyds Road, 30 Jess Road.	Stawell-Warracknabeal Road depth 0.26m Ridd Road depth 0.08m Horsham-Lubeck Road depth 0.25m access cut Ashens-Jackson Road depth 0m C Readings Road depth 0m Wimmera Highway depth 0.12m	In addition to actions listed above; Council and Regional Roads Victoria deploy road closure signs and undertake traffic management as needed.
		4.96	50	31,667	905 (0)	13 (1)*	One building may be flooded over floor. To prevent flood water from entering Rupanyup from the south a levee should be placed along Ron Lingham Drive. Floodwater breaks out from Dunmunkle Creek through the Rupanyup Golf Course. Flooding impacts all rural Dunmunkle Creek crossings, including the Wimmera Highway at Rupanyup. The Donald Murtoa Road is inundated in several locations, flow continues north to the Borung Highway, terminating in a wetland west of Carrion-Lawler Road.	X1 building may be flooded above floor. x3 additional buildings isolated and/or flooded below floor; 111 Len Matthews Road, 227 Ashens-Jackson Road, 245 C Readings Road.	Stawell-Warracknabeal Road depth 0.35m Ridd Road depth 0.20m Horsham-Lubeck Road depth 0.27m Ashens-Jackson Road depth 0.35m C Readings Road depth 0.15m Wimmera Highway depth 0.20m	In addition to actions listed above; VICSES sandbag buildings as needed (uncertainty regarding buildings impacted) Victoria Police evacuate buildings as needed.
		5.01	100	36,648	937 (0)	23 (1)*	This event is similar to January 2011. Inundation depth and extent has increased in Rupanyup and north of Rupanyup.	An additional building isolated and/or flooded below floor; 190 Ti Tree Swamp Road.	Stawell-Warracknabeal Road depth 0.38m Ridd Road depth 0.29m Horsham-Lubeck Road depth 0.30m Ashens-Jackson Road depth 0.37m C Readings Road depth 0.20m Wimmera Highway depth 0.21m	Refer to actions listed above.

5.79 m (34,154 ML/d)	8.72 m (54,498 ML/d)	5.03	January 2011	39,527			Rupanyup was flooded twice, initially by local runoff from the south on the 13th of January, then flood Dunmunkle Creek 3 days later. Significant damage to buildings was caused from stormwater flooding reaching the Rupanyup Cafe, 149.2 mm over 3 days. Specifically in Cromie, Stewart, Edward, Gibson, Walter, Gordon and Beryl Streets. Local sources reported 18 buildings were threatened by riverine flooding, due to extensive sandbagging 7 buildings were flooded above floor.			
		5.05	200	41,611	982 (0)	61 (5)*	<p>Flooding in Rupanyup has increased considerably with water pushing into the rear of properties on Stewart Street. All properties along Dunmunkle Creek are likely to require some flood mitigation or assistance with access/egress. Greater inundation is observed through the Bryntirion Forrest. North of Rupanyup the inundation extent and depths have generally increased with no changes to flow paths of large breakout flows.</p>	<p>X4 additional buildings may be flooded above floor</p> <p>X2 additional buildings isolated and/or flooded below floor;</p> <p>84 Ashens-Jackson Road, 3973 Stawell-Warracknabeal Road.</p>	<p>Stawell-Warracknabeal Road depth 0.42m</p> <p>Ridd Road depth 0.39m</p> <p>Horsham-Lubeck Road depth 0.35m</p> <p>Ashens-Jackson Road depth 0.42m</p> <p>C Readings Road depth 0.26m</p> <p>Wimmera Highway depth 0.22m</p>	Refer to actions listed above.

Forecast gauge: Wimmera River at Glenorchy gauge 415201

* There is uncertainty regarding Rupanyup's building damage estimated given there have been changes between the proposed (modelled) and actual mitigation works undertaken to the water storages. Further modelling needs to be undertaken to improve the accuracy of these building damage estimates.