

HAWKESBURY-NEPEAN VALLEY: NSW SES FLOOD WARNING GAUGES

Annex B

Supporting document (NSW SES Response Arrangements for Hawkesbury-Nepean Valley) to the Hawkesbury-Nepean Flood Plan

Last Update: June 2020

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1. FLOOD WARNING GAUGES MONITORED WITHIN THE HAWKESBURY-NEPEAN VALLEY

- 1.1.1. The gauges monitored within the Hawkesbury-Nepean Valley are listed in Table1*. The key warning gauges for the Hawkesbury Nepean Valley are shaded light grey in the table.
- 1.1.2. Some gauges in Table 1 are warning gauges for which the NSW SES holds flood intelligence cards. Others are automatic gauges that are used by the Bureau to predict flood heights at the key warning gauges.
- 1.1.3. The proxy gauges are key locations for downstream predictions, critical for the provision of a quantitative flood forecasting service to downstream sites (showing + in the Forecast Location column in Table 1).
- 1.1.4. In Table 1 the abbreviation EES refers to the Environment, Energy and Science Group within the NSW Department of Planning, Industry and Environment.

1.1.5. Real-time data available at

- a. <u>Bureau Latest River Heights for the NSW Central Coast</u>
- * Table 1 correspond to the gauges in Schedules 2 and 3a of the <u>NSW Service Level</u> <u>Specification</u>, for which the Bureau of Meteorology provide flood warnings.

Table 1: Gauges monitored within the Hawkesbury-Nepean Valley

	AWRC No.		Station owner	Gauge type	Flood Classification (m)			Flood			Target warning lead time		- 70% of	
Bureau No.		Forecast location			Min	Mod	Maj	Flood Warnings provided by the Bureau	Flood Intelligence Card Held	Gauge Zero (m)	Time (hrs)	Trigger height (m)	peak forecasts within	Comments
568171	212238	Menangle Weir +	Water NSW	Automatic	2.8	6.5	9.3	No (flood classifications available for information only)						Used as a proxy to predict to 212238.
068216	212904	Menangle	Bureau	Automatic	5.2	9.2	12.2	Quantitative	Yes	58.47	6hrs	>5.2m	+/- 0.3m	
568154	212216	Camden Weir +	Water NSW	Automatic	6.8	8.3	13.8	Quantitative		55.284	12hrs	>6.8m	+/- 0.3m	Used as a proxy to predict to 212900
68214	212900	Camden Bridge	Bureau	Manual	6.8	8.3	13.8	No (flood classifications available for information only)	Yes	55.672				212216 is used to predict to this gauge. They read roughly the same.
067093	212202	Wallacia Weir	Water NSW	Automatic	5.0	8.7	11.0	Quantitative	Yes	29.646	12hrs	>5.0m	+/- 0.3m	
567047	212201	Penrith	Water NSW	Automatic	3.9	7.9	10.4	Quantitative	Yes	14.136	6hrs	>8.9m	+/- 0.3m	
											8hrs	>11.3m		

					Flood Classification (m)		Flood			Target warning lead time		70% of		
Bureau No.	AWRC No.	Forecast location	Station owner	Gauge type	Min	Mod	Maj	Warnings provided by the Bureau	Flood Intelligence Card Held	Gauge Zero (m)	Time (hrs)	Trigger height (m)	peak forecasts within	Comments
567098	212200	00 North Richmond WPS +	Richmond	Automatic	3.8	7.9	10.5	Quantitative	No	0.326 (STD) 0m	6hrs	>16m	+/- 0.3m	Used as a proxy to predict to
										AHD	15hrs	>18m	+ / - 0.3m	212902
063282	212902	North Richmond Bridge	Bureau	Manual	4.3	8.4	11.0	No (flood classifications available for information only)	Yes	0.34 (STD)				This gauge reads approx. 0.5m higher than the automatic gauge 212200
567044	212426	Windsor PWD+	Environment, Energy and Science (EES) Group – Manly Hydraulics	Automatic	5.8	7.0	12.2	Quantitative		(Gauge zero is 0 AHD TBC)	6hrs if peak>16 15hrs if	9.6m 13.7m	+/- 0.3m	Used as a proxy to predict to 12903.
			Laboratory								peak>16m 12-18 hrs	Peak		

					Flood	l Classifi (m)	ication	Flood			Target warr time		70% of	
Bureau No.	AWRC No.	Forecast location	Station owner	Gauge type	Min	Mod	Maj	Warnings provided by the Bureau	Flood Intelligence Card Held	Gauge Zero (m)	Time (hrs)	Trigger height (m)	peak forecasts within	Comments
067095	212903	Windsor	Bureau	Manual	5.8	7.0	12.2	No (flood classifications available for information only)	Yes	0.15				The Bureau predicts for this manual gauge using the automatic gauge 212426. This gauge 212426. This gauge reads around 0.15m lower than the automatic gauge 212426. Note: There is also another gauge owned by Water NSW with the same AWRC number equivalent to 212426.

	AWRC No.	Forecast location	Station owner	Gauge type	Flood Classification (m)			Flood			Target warning lead time		- 70% of	
Bureau No.					Min	Mod	Maj	Warnings provided by the Bureau	Flood Intelligence Card Held	Gauge Zero (m)	Time (hrs)	Trigger height (m)	peak forecasts within	Comments
063280	212406	Sackville	EES – Manly Hydraulics Laboratory	Automatic	4.6	7.3	9.7	Quantitative	Yes		18hrs	>4.6	+/- 0.3m	
067094	212407	Lower Portland (also known as Colo Junction)	EES – Manly Hydraulics Laboratory	Automatic	4.6	6.1	7.6	Quantitative	Yes		18hrs	>4.6	+/- 0.3m	
063288	212908	Putty Road	Bureau	Manual	2.7	5.7	10.7	Quantitative	Yes		12hrs	>5.7	+/- 0.3m	
563033	212290	Upper Colo+	Water NSW	Automatic	5.1	8.6	14.3	No (flood classifications available for information only)						Used as a proxy to predict to 212908 with average travel time around 6hrs.
561004	212408	Webbs Creek (Wisemans Ferry)	EES – Manly Hydraulics Laboratory	Automatic	n/a	3.5	4.2	Yes	Yes	- 0.153	12hrs	>3.5m	+/- 0.3m	