

REPORT ON AUGUST 2013 MEETING**Speaker:** Chas Keys**Topic:** The history of flooding in Wollongong, and some lessons learned (and not learned)

This talk, illustrated with maps, diagrams and photographs, examined the occurrence of floods in the Wollongong area since the 1890s. It noted the danger, destruction and disruption that flooding has brought on the many creeks which rise on the Illawarra Escarpment and flow through built-up areas to the sea or to Lake Illawarra. Almost all Wollongong's flooding is 'flash' flooding, occurring very soon after heavy rains and thus with very short warning times. Degraded ex-tropical cyclones, east coast low pressure systems, thunderstorms and incursions of moist tropical air from northern Australia can all cause flooding, either on individual creeks or across the city. The evidence is that 24-hour rainfalls of 300mm or more always produce severe flooding, though lesser falls in shorter periods can also do so. In all likelihood the severity of floods has increased as the area has become more urbanised and runoff has intensified from larger areas of hard urban surfaces.

Three significant floods of living memory - those of March 1975, February 1984 and August 1998 - were singled out for detailed examination. All were multi-creek events which had severe consequences. Landscapes were modified by landslides on the escarpment and creeks carving new channels in their upper reaches, coal wastes were washed into suburban areas, bank erosion occurred, serious blockages of culverts were caused, buildings near creeks were undermined and/or flooded, in some case well over floor level, and there was great damage to roads, kerbs and gutters and public and institutional facilities. The 1998 flood saw a public campaign focused on overturning the insurance companies' distinction between floods (which were not covered in most policies) and storms (for which cover was available). Eventually, the companies were forced to make payments regardless of whether the damage was assessed to have been caused by storm activity or flooding. The payouts totalled about \$40 million for more than 3500 dwellings, 425 business premises and 800 motor vehicles, and the event

contributed to flood insurance becoming more available in Australia

The 1975 event ushered in the first real attempts by the City Council to use engineering measures to mitigate the consequences of flooding: levees were built and rock gabions installed to prevent bank erosion. Later, several large concrete detention basins were constructed at the base of the escarpment and after the 1998 flood some properties near creeks were purchased by the council and demolished. Much culvert augmentation, which will reduce blockages and the resultant increases in over-bank flows upstream of bridges, has been carried out or is planned. To date, however, there have not been major changes in land use and substantial urban development has occurred or is planned in areas which are known to have been flooded in the past. The likely result will be further flood damage and expensive repairs to infrastructure which will contribute to relief costs and larger household insurance premiums.



Photo from Wollongong City Council.

A house in Anama St, Fairy Meadow inundated in August 1998 to the depth shown by the line. The house was later purchased by the Council via a voluntary purchase scheme used to remove structures from badly flooded areas, and demolished. Other similarly badly inundated dwellings in the street were dealt with in the same way.