

History of coastal storms on the Gold Coast

Gold Coast beaches regularly experience storm events such as tropical cyclones and east coast low pressure systems (see *Cyclones* and *East Coast Lows* information sheets). Tropical cyclones form in tropical climates over warm ocean waters and are generally seen as having a greater influence in North Queensland. In spite of this, occasionally cyclones track south, extending their influence to the Gold Coast. For example, in 1967, Cyclone Barbara crossed the coast at Byron Bay. East Coast lows are more common in subtropical climates, forming as intense low pressure systems.

A number of major storm events have been documented since settlement on the Gold Coast, with some recorded as early as the 1920s. These storms have a profound effect on our beaches, with the most common impacts being flooding, beach erosion and wind damage. Beach erosion can have a longer lasting effect if a series of storm events occur in succession, as was the case in 1967. Gold Coast City Council has several management strategies in place to reduce the impact of storm events on our community.

Weather events tend to occur in cycles and their occurrence is dependent on large, global climactic patterns such as the Interdecadal Pacific Oscillation. This variation in the frequency of storms from decade to decade is evident. The timeline on the following page provides a summary highlighting a number of major storms directly affecting the Gold Coast¹.

This list is not conclusive and highlights events where the Gold Coast (including southern Queensland beaches) is specifically stated in the records.



Aftermath of the May 2009 storms at Palm Beach (Source: GCCC)



Aftermath of the May 2009 storms at Bilinga (Source: GCCC)

¹Callaghan, J. and Helman, P. (2008) Severe Storms on the East Coast of Australia 1770-2008. Griffith Centre for Coastal Management, Griffith University, Gold Coast.

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1930s	1929 TC
	1931 TC
	1936 TC
	1938 TC
1940s	1948 TC
	1950 ECL 1951 TC
1950s	1954 TC
	1960 TC 1962 TC 1963 TC Annie
1960s	1967 TC Dinah, TC Barbara, ECL, TC Elaine, TC Glenda ECL, ECL, ECL, ECL
	1972 TC Daisy
	1974 TC Wanda, TC Pam, TC Zoe
	1976 TC David
1970s	1980 TC Paul, TC Ruth, ECL 1981 TC Cliff, ECL
	1983 ECL 1984 TC Lance
	1987 ECL 1988 ECL 1989 ECL 1990 TC Nancy
	1992 TC Betsy, TC Fran 1993 TC Roger
1990s	1996 ECL 1998 TC Yali 1999 ECL 2000 TL, ECL, TL 2001 ECL
	2004 HC 2005 Extreme rainfall 2006 ECL, HC
	2008 ECL, ECL 2009 TC Hamish, ECL
	2000s

1936
Tropical cyclone, with ocean waters washed into Kirra Surf Club and many houses damaged at Palm Beach

1954
Erosion at Main Beach: tropical cyclone crossing land at Coolangatta causing severe beach erosion

1967
January: Tropical cyclone Dinah crosses as a category 4 cyclone causing extensive damage to buildings
February: Tropical cyclone Barbara crosses the coast at Byron Bay causing extensive erosion to Gold Coast's beaches
March: A continental low brought heavy rains and large swells Tropical cyclone Elaine caused localised flooding and beach erosion
April: Tropical cyclone Glenda moved south to offshore Brisbane causing extensive beach erosion and damage to buildings
May: East coast low
June: East coast low causing more beach erosion and flooding East coast low, a severe storm, beach erosion and buildings damaged
July: East coast low causing further beach erosion

1974
January: Tropical cyclone Wanda, extensive beach erosion and intensive rainfall with the Nerang River rising to a record 9.91m
February: Tropical cyclone Pam caused beach erosion and the seawall was overtopped by waves
March: Tropical cyclone Zoe causing beach erosion

2000
April: Tropical low generated large swells causing beach erosion
July: East coast low bringing flooding
October: Tropical low causing beach erosion

2009
March: Tropical cyclone Hamish generated large swells causing beach erosion
May: East coast low causing beach erosion



Kirra Beach 1936



Main Beach 1954



Gold Coast 1967



Gold Coast 1967



Mermaid Beach 1974



Palm Beach 2000



Palm Beach 2009

TC = Tropical cyclone; ECL = East coast low; HC = Hybrid cyclone; TL = Tropical low