

Tweed Sand Bypassing is a joint initiative of the NSW and Queensland State Governments.

Administered by the NSW Department of Trade and Investment in conjunction with the Queensland Department of Science, Information Technology, Innovation and the Arts, the project receives financial contribution from Gold Coast City Council and support from Tweed Shire Council.

In December 1999, the two state governments awarded contracts to a consortium led by McConnell Dowell Constructors (Australia) Pty Ltd to design, construct and operate a sand bypass system until September 2024. Construction began in February 2000 and the system began operating in May 2001.

For more information

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www.tweedsandbypass.nsw.gov.au

Tweed River Entrance Sand Bypassing Project



Why the system is needed

Prior to the sand bypass system, sand that moved naturally along the coast due to longshore drift accumulated on Letitia Spit behind the Tweed River's southern training wall. Naturally bypassed sand also formed a shoal across the river entrance that hindered boating access to and from the river. As sand was being trapped, the southern Gold Coast beaches did not receive their natural supply which meant these beaches were unable to fully recover following storm erosion events.

The system provides a practical means of moving sand past the Tweed River entrance. It improves boating access and provides the southern Gold Coast beaches with a quantity of sand that is consistent with the natural supply. Beaches will continue to naturally fluctuate in width but will generally be in a condition like that seen prior to construction of the training walls in the 1960s.



What is the Tweed River Entrance Sand Bypassing Project?

The Tweed Sand Bypassing Project is a sand transport system that collects sand from the southern side of the Tweed River entrance at Letitia Spit, and pumps it under the river to outlets on the northern side. From there the sand is transported by wave currents to nourish the southern Gold Coast beaches. The project periodically dredges sand that accumulates at the Tweed River entrance which is also transported to southern Gold Coast beaches. The system is designed to transport the natural quantities of sand that move northwards along the coast.

The project's objectives are:

- to establish and maintain a safe, navigable entrance to the Tweed River.
- to restore and maintain the coastal sand drift to the beaches on the southern Gold Coast of Queensland.



The sand bypass system consists of:

- a 450m sand collection jetty, located 250m south of the Tweed River entrance.
- 10 submersible jet pumps supported by the jetty, that sit below the sea bed and collect sand.
- a control building located on Letitia Spit which houses the pumps, electrical equipment and controls. From here, sand slurry is pumped northwards under the river.

- a water intake on the river's southern bank, that supplies water to operate the jet pumps.
- 3.1km of 400mm diameter steel and polyurethane underground pipeline which transports the sand to one of the discharge outlets.
- a primary discharge outlet located at East Snapper Rocks. Intermittent outlets are also located at West Snapper Rocks, Kirra Point and Duranbah.
- a floating dredge that is occasionally used to clear naturally bypassed sand from the Tweed River entrance.

