

NORTHLAND'S NEWEST PORT 13 YEARS ON: A STORMWATER REVIEW

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ABSTRACT (300 WORDS MAXIMUM)

The quality, fate and environmental implications of the stormwater discharges from the Northport Marsden Point deep-water port, located at the entrance to Whangarei Harbour are discussed. Northport is New Zealand's newest port, opening in 2002. It is one of NZ's larger ports and handles predominantly logs and other bulk products. The local ecology is potentially highly sensitive and the harbour waters have a high classification under the RMA 1991. Nearby areas include extensive intertidal zones and a marine reserve. Edible shellfish of high importance to iwi, recreationalists and commercial take, also occur nearby. The need for exceptional environmental performance by the port was a fundamental part of the design of the stormwater management system. This unique system moves stormwater landward via a network of drains to a large storage pond. Pond waters are discharged at the port berth face 11 m below CD. 4Sight Consulting reviewed stormwater monitoring data collected over Northport's first 13 years of operation. The objectives of the review included a broad assessment of compliance as measured against consent requirements; a clear picture of the frequency and duration of discharge events based on pump records; and an analysis of the volume and rate of discharge in relation to the previously modelled dilution available in the harbour. This information was also considered in relation to rainfall, wind direction and velocity data. While providing a comprehensive picture of Northport's discharge in relation to receiving environment values, the analysis was useful in discounting the port discharge as being linked to the catastrophic collapse in biomass of the nearby Mair Bank pipi bed. In addition to its ecological function, the bed has an important role in the stability of the harbour entrance and foreshore, and the cause of its collapse is a matter of high cultural, public and commercial interest.

KEYWORDS

Stormwater discharge, sustainability, receiving environment, port, Mair Bank.