Swansea Channel is the marine gateway to Lake Macquarie on the NSW Central Coast. Creating and maintaining a more reliable boating access to the lake was considered desirable for social and economic reasons. Neumann Contractors was selected by NSW Crown Lands to undertake a larger scale “once off” maintenance dredging campaign to achieve this, with smaller subsequent campaigns for ongoing maintenance.

**Scope of Work**

The aim of the dredging campaign was to create a stable navigation channel to reduce the frequency of periodic follow-up dredging. All sand dredged from the channel was pumped to a designated area at Blacksmiths Beach where it was de-watered & spread as part of beach nourishment & dune rehabilitation works.

- Dredging a 60m wide channel 3.5m deep
- Transfer of approximately 80,000m³ of sand up to 3.5km to Blacksmiths Beach

**Challenges**

- Presence of sensitive environmental ecosystems
- Involvement of numerous stakeholders and interest groups;
- Proximity to local residents;
- Limited time frame to complete the dredging
- Installing 3,500m of pipeline from the Channel to the beach including an 80m section through an existing box culvert
- Pumping the material up to 3,500m through a series of booster pumps
- Spreading the material evenly along the beach at the nourishment
- Maintaining safe navigational access for all boating traffic in this very popular and busy recreational waterway.

**Dredge Nu-Compact – Cutter Suction Dredge**

- Length: 26.8 m
- Gross Weight: 75 tonnes
- Pipe Dia.: 300 mm
- Digging Depth: 2.0 – 8.0 m