

# Improving operational efficiency of the Gold Coast Sand Bypass System



Stage 2-Supply and install new high pressure pump, motor and variable speed drive (VSD)

Gold Coast Waterways Authority is making improvements to the Sand Bypass System by implementing recommendations from the Energy Efficiency Investigation Report (2015).

## What does the project involve?

The Sand Bypass System (SBS) transfers sand under the Gold Coast Seaway entrance from the Spit to the southern tip of South Stradbroke Island. After 30 years of service, refurbishment works are being carried out to improve the system's operational efficiency.

Stage 1 was completed in August 2016 and involved installation of a new low pressure pipeline across the south east corner of Doug Jennings Park. Stage 2 is now being carried out to replace the two high pressure pumps with a new, more efficient pump unit in the main SBS building.

Whilst the replacement of the pump is being carried out, no sand will be pumped through the SBS. Pumping will resume immediately following the commissioning of the pumps and no adverse affects are anticipated due to the period of no pumping.

## Benefits

- Maintaining functional reliability and improving operational efficiency with regard to power consumption of the Sand Bypass System.
- Protecting the accessibility and ensuring sustainable management of sand pumping activities at the Gold Coast Seaway entrance

## Impacts of the Project

The Sand Bypass System will not be operating during the commissioning of the new equipment in July and August 2017. There should be no impacts to the public during this time

Updated: 24/08/17

## Key Details\*

### LOCATION

Sand Bypass, The Spit, Main Beach

### PLANNED INVESTMENT

\$1,700,000

### STARTED :

July 2016

### ESTIMATED COMPLETION

September 2017

### CURRENT STATUS

Construction

\*may be subject to change

## About Us

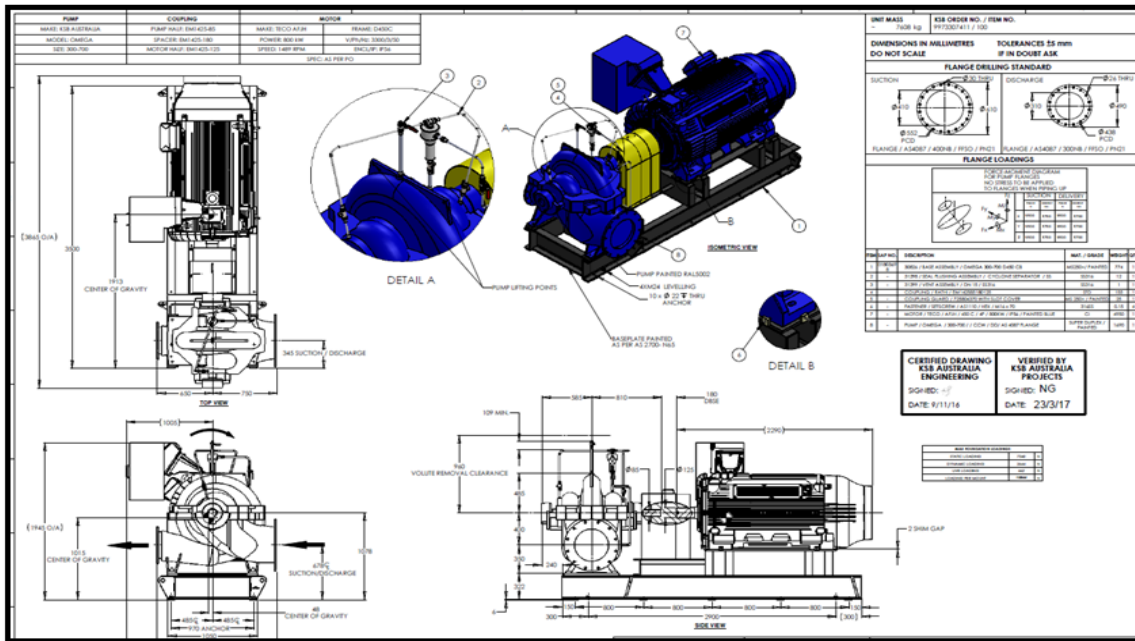
Gold Coast Waterways Authority (GCWA) is a State Government statutory authority responsible for improving access to and management of the Gold Coast waterways.

We're committed to ensuring that our waterways are a world class asset available to residents, visitors and businesses.

We have over 50 projects planned for delivery over the next 4 years.

To find out more about our program, visit [gcwa.qld.gov.au](http://gcwa.qld.gov.au)

## New Unit HV Motor & HP Pump



## Transportable building to house the new VSD & new unit pump

This project involves:

- \* Supply, installation & testing of:
  - High Pressure Pump (over 1387 rpm at high duty point)
  - High Voltage (HV) Motor (Rated power 800kW)
  - High Voltage Variable Speed Drive (VSD)
  - Transportable Building (Fully fitted out with the HV (VSD)
  - High Voltage Cabling
  - Low Voltage and control cabling
  - Discharge Flowmeter
  - Makeup Water Flowmeter
  - Rotork actuators on existing pump suction valves
- \* Civil and electrical works
- \* Documentation including commissioning manuals



## HP pump replacement pipework layout plan view

