

Quakers Hat Bay to Brightmore Reserve Fact Sheet

Rehabilitation of the Northern Suburbs Ocean Outfall Sewer

Scope and purpose of work

The Northern Suburbs Ocean Outfall Sewer (NSOOS) is being made more reliable between Mosman and Cremorne, reducing potential overflows into Sydney Harbour. Crews are progressively using stainless steel mesh and spray-on concrete (shotcrete) to restore the tunnel roof and walls. This is designed to extend the life of the tunnel by at least 50 years.

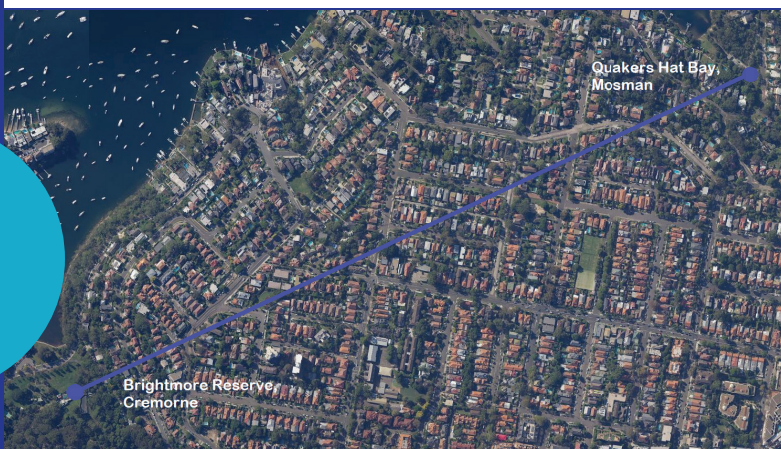
Duration and hours of work

Rehabilitation work is expected to take until late 2024, tunnel and weather conditions permitting. This follows first silt removal by a previous contractor, and Critical Sewer Solutions starting in mid-2021. Standard work hours are 7am-6pm, Monday to Friday.



Project route and progress

The tunnel section being repaired is almost 1.4km long. Odour control units at Brightmore Reserve and The Spit, and other counter measures, help control smells. NSOOS rehabilitation only averages around 5m per day because of the difficult work environment.



Main steps

- 1. Surface preparation**
High pressure water jets and other machinery thoroughly clean the concrete
- 2. Concrete arch repair**
Shotcrete is sprayed over stainless steel mesh, restoring the structure
- 3. Corrosion protection**
Hard-wearing and chemically resistant shotcrete is sprayed onto the repair
- 4. Final de-silt**
Silt is removed a second and final time.

Did you know?

The NSOOS measures around 3.5m wide by 2.6m high, is nearly a century old, and its 400 square km plus catchment goes as far west as Blacktown. The 'box section' tunnel also carries about 25 per cent of all wastewater in the Sydney basin and supplies North Head Treatment Plant at Manly.

Who is Critical Sewer Solutions?

The Critical Sewer Solutions joint venture was formed in mid-2021 by two Australian companies highly experienced in repairing water and wastewater assets. Interflow and Metrocorp Technologies Pty Ltd have both worked separately on the NSOOS before, and on other large sewers. Their teams are also award winning.*

A crew shotcreting the tunnel 90m below the ground



For more information visit www.sydneywater.com.au or phone CSS (toll free) 1800 233 076

*Joint winners with Sydney Water and SASTTI of the NSW Excellence in Concrete Award – Repair, Restoration & Retrofit Category - Concrete Institute of Australia, 2021

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