

# · Safeguarding Auckland's iconic Harbour Bridge



**Client:** New Zealand Transport Agency

**Location:** Auckland, New Zealand

**Completion Date:** 2014

Since opening in 1959, the Auckland Harbour Bridge has required continual maintenance and refurbishment. The huge external surface area has led to a large volume of water and waste material being discharged into the Harbour. In an attempt to minimise this discharge, NZ Transport Agency was granted a consent to contain the majority of discharges and wash water from maintenance work.

During implementation of this consent, Auckland Harbour Bridge Alliance\* (AHBA) Engineers discovered that the containment could cost tens of millions of dollars in addition to the cost of strengthening the truss bridge.

Opus, as part of the AHBA, was commissioned to provide a solution to this problem. Our Materials Specialists developed a 30-year Coatings Maintenance Strategy, using a spot repair and over coating procedure rather than the usual remove and replace philosophy. This is based on maintaining the historic coating for as long as practicable, to reduce the amount of contaminants being discharged into the harbour.

Opus' Environmental Management Team collaborated with our Materials Specialists, and AHBA partners to develop an Adaptive Management Framework (AMF) using an outcomes-based approach to set discharge limits for contaminants.

Our approach resulted in a cost-effective and environmentally friendly solution, whilst allowing the maintenance contractor Total Bridge Services\*\* to adopt innovative ways to meet the discharge thresholds.

The reduction of waste being discharged into the Waitemata Harbour per year will not only safeguard this important resource for future generations, but will also save the New Zealand taxpayers an estimated \$65M over a 10- year period.

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#### **This project has received the following awards to date:**

New Zealand Planning Institute (NZPI)  
Best Practice – Integrated Planning and Assessment

New Zealand Transport Agency (NZ Transport Agency)  
Going the Extra Mile Award – Environmental Protection

ACENZ Merit Award - INNOVATE

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*\*AHBA consists of NZ Transport Agency, Beca and Total Bridge Services*

*\*\* Total Bridge Services, is a joint venture, consisting of TBS Farnsworth, Opus International Consultants, and Fulton Hogan.*

[opus.co.nz/projects/Auckland Harbour Bridge discharge maintenance works](https://opus.co.nz/projects/Auckland-Harbour-Bridge-discharge-maintenance-works)