

GEOFABRICS CASE STUDY

AQUAROCKBAG PROTECTS UNDERWATER INFRASTRUCTURE FROM SCOUR

PRODUCTS USED

AquaRockBag®

- A durable mesh net made from premium virgin HDPE or polyester materials
- Offers minimal environmental impact during installation to preserve the natural habitat and reduces the risk of secondary environmental damage
- Adaptable to various site conditions and can be reused in different projects, allowing for easy reconfiguration and relocation
- Net offers excellent anti-abrasion properties and high UV resistance
- The net can be filled on-site using a portable filling frame and machinery, which makes installation quick and easy



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PROJECT DESCRIPTION

Hunter Water's Belmont Desalination Plant, near Newcastle, Australia, required scour protection for an offshore concrete intake structure exposed to constant water currents 18 metres below the surface. The original design specified loose armour rock to protect the structure from scour erosion. Placing loose rock at this depth presented challenges around installation feasibility, efficiency, placement accuracy, safety and long-term durability.

To address these issues, the client approached Geofabrics to help develop a safer, more practical and durable alternative.

OUR SOLUTION

Geofabrics worked with the client to finalise a design using 8-tonne and 4-tonne AquaRockBag units. The bags were filled onshore by the contractors and transported by barge to a jack-up barge, where they were craned into position with guidance from a dive team.

This approach enabled more controlled placement of the scour protection units around the underwater structure. The dive team confirmed the installation was complete, providing protection against scour erosion from the constant water currents.

The AquaRockBag solution provided a practical and more efficient installation method for the challenging underwater conditions, helping protect the offshore infrastructure from scour erosion and significantly reducing the need for ongoing monitoring.

GEOFABRICS®
Sustainable solutions



18m
underwater scour protection

4 & 8
tonne virgin HDPE AquaRockBags installed



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GEOFABRICS®

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