

What's Up @ Randle Reef

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BAY AREA RESTORATION COUNCIL

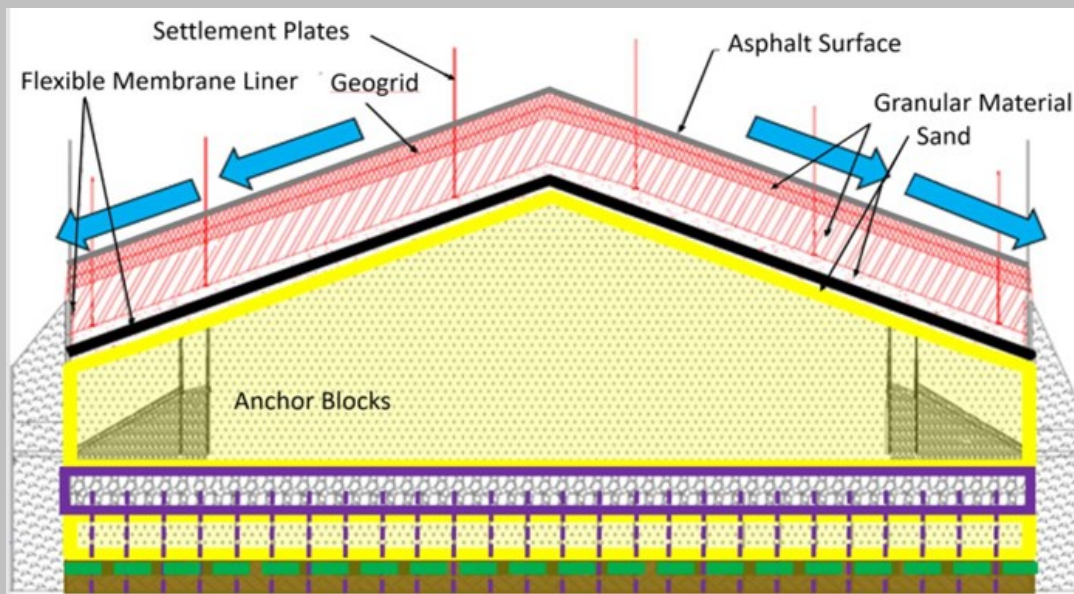
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The first Stage 3 contract to cap the Randle Reef Engineered Containment Facility (ECF) was awarded in July 2023.

Work has since been underway to install the various layers and components that will cap the dredged contaminated sediment.

Construction of the initial cap (yellow layer) will feature the re-use of secondary materials from the neighbouring Stelco property, such as byproducts from steel making and rubble from decommissioned buildings.

A flexible membrane liner (black line) will provide the upper environmental barrier.



Cross section view of the environmental cap of the Randle Reef ECF currently under construction. The vertical pitch of the ECF's asphalt surface is exaggerated in this illustration.

Placement of geogrid and geotextile layers atop the dredged sediment provides additional structural support for the placement of new cap layers. The installation of these geogrid and geotextile layers over those secondary materials was completed across the entire surface of the ECF in 2023.



Surface view of the geogrid and geotextile being layered over secondary materials.



Aerial view of the geogrid and geotextile being layered over secondary materials.

Installation of a layer of drainage stone was completed in December 2023 to help to ensure the proper flow of water squeezed out during consolidation of the dredged sediment.



Drainage stone installation completed on 2/3 of the ECF surface.



Wick drain installation within 1/4 of the drainage stone.

The installation of wick drains through the drainage stone layer also began in December 2023 and will continue throughout 2024.

Wick drains improve the removal of contaminated water from the dredged sediment. Increased drainage will occur as additional overhead weight is added to further consolidate the dredged sediment.



Detail of wick drain installation.

Geotextile drainage strips will be installed to guide contaminated water from the wick drains to a drainage system within the ECF perimeter.

Contaminated water will be pumped to an onsite water treatment plant prior to its discharge to the harbour.