



CITY OF CORONADO

CITY COUNCIL STAFF REPORT

November 21, 2023

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RESOLUTION DECLARING A LOCAL EMERGENCY DUE TO THE DISCOVERY OF AN INVASIVE ALGAE *CAULERPA PROLIFERA* IN THE CORONADO CAYS

RECOMMENDATION:

Adopt the Resolution declaring a local emergency due to the discovery of *Caulerpa prolifera*.

BACKGROUND:

On September 21, 2023, an approximately 24 square meter patch of *Caulerpa prolifera* was discovered growing underneath and adjacent to boat docks along the eastern edge of Antigua Village within the Unified Port of San Diego's (Port) jurisdictional waters of the Coronado Cays during pre-construction underwater surveys associated with the Antigua Village Dock Replacement project. Surveys conducted subsequent to the initial discovery have revealed approximately 0.25-acres of additional *Caulerpa prolifera* infestations on the north side of Antigua Village and within City of Coronado jurisdictional waters.

While not harmful to humans, *Caulerpa* is a non-native and highly invasive algae species that has not previously been identified in San Diego Bay, despite routine monitoring since the early 2000s. *Caulerpa* can rapidly spread through vegetative fragmentation from contact with vessels, fishing, and tidal exchanges and can reproduce asexually. *Caulerpa* typically occurs in subtropical and tropical soft-bottom locales, and when introduced, can aggressively displace native habitats. The presence of *Caulerpa* has caused significant and expensive damage to coastal waters in the Mediterranean Sea and California, including a 2021 infestation in Newport Beach where eradication efforts are underway and ongoing. *Caulerpa taxifolia*, a related but different species of invasive algae, infested part of Huntington Beach and Carlsbad in the early 2000s and has since been successfully eradicated.

Left untreated, *Caulerpa* can expand aggressively and displace native habitats including the 1,900 acres of eelgrass habitat in South San Diego Bay. Any impacts to eelgrass could threaten numerous other species including 70 different fish species and 60-80 federally listed green sea turtles that rely on eelgrass as foraging and resting habitat.

Typically used in aquariums and due to its highly invasive potential, it is illegal to possess, sell, or transport any seaweed in the genus *Caulerpa* within the state of California. Unfortunately, the most likely source of *Caulerpa* in the Coronado Cays is the release from an aquarium.

ANALYSIS:

Staff has been working diligently with the Port, Coronado Cays Homeowner's Association, and the (SCCAT), which consists of multiple state and federal regulatory agencies, to develop and implement an immediate response plan to prevent further infestation of *Caulerpa Prolifera*.

Upon observing *Caulerpa prolifera*, notification was provided to the Southern California Caulerpa Action Team (SCCAT), a multi-agency group that includes representatives from the California Department of Fish and Wildlife, U.S. Fish and Wildlife (FWS), National Marine Fisheries Service, Regional Water Quality Control Board (RWQCB), Army Corps of Engineers (ACOE), California

Coastal Commission, and State Lands Commission, and local agencies. The SCCAT has met several times to determine the extent and magnitude of the observed *Caulerpa prolifera* in the Coronado Cays and to determine which areas in the Bay will need to be surveyed and to develop an eradication plan to remove the infestation, including the need for permits to complete any eradication efforts.

The infestation of *Caulerpa prolifera* initially found within Port jurisdiction was treated in October by the placement of a benthic barrier to prevent the spread of the algae. Benthic barriers consist of thick plastic, typically used to line a backyard pond, and secured with rebar and sandbags to create a sealed barrier to kill the algae by excluding any light, oxygen, and water circulation. The barriers will be left in place for a minimum of 6 months.

Additional *Caulerpa prolifera* surveys were conducted from October 6 through October 25, 2023 (Attachment A) that revealed additional areas of infestation within City waters. More surveys will be required to determine the extent of infestation in Cays waterways.

Initial surveying and eradication work was funded by the Port at a cost of approximately \$92,000. Additional funding will be needed to complete underwater surveys and eradication efforts. The preliminary cost estimate to survey San Diego Bay (including Coronado Cays) and to perform eradication is estimated at \$1.2 million.

The Port and FWS have applied for a grant from the Rapid Response Fund for Aquatic Invasive Species in the amount of \$541,758 to help fund the project. Funding is also potentially available from the State Water Resources Control Board (SWRCB) Cleanup and Abatement Account, that has up to \$500,000 to fund additional surveys and eradication efforts. Staff has been informed that a Local Emergency Declaration from the City of Coronado is necessary to secure funding through the SWRCB Cleanup and Abatement Account.

Staff will continue to coordinate with the SCCAT and monitor the *Caulerpa* surveying and eradication efforts.

FISCAL IMPACT:

Declaring a Local Emergency does not create a fiscal impact and is recommended to access State funding for surveying and eradication efforts.

ALTERNATIVE:

The City Council may decline to declare a local emergency.

CALIFORNIA ENVIRONMENTAL QUALITY ACT:

Categorically Exempt per California Environmental Quality Act (CEQA) Guidelines; Class 7, Actions by Regulatory Agencies for Protection of Natural Resources.

PUBLIC NOTICE:

No notice required.

ATTACHMENTS:

1. Resolution to Declare a Local Emergency
2. Map of Caulerpa Prolifera Infestation

Submitted By: Community Development Department / Richard Grunow