



Staff Recommendation

August 15, 2023

Item 6

Action Item:

Consideration and Approval to Disburse Funds for Contaminated Sites Inventory and Remediation Prioritization to Address Risk to Sea-Level Rise

Ella McDougall, Climate Change Program Manager

Recommended Action: Authorization to disburse up to \$1,305,000 to the California Department of Toxic Substances Control and \$695,000 to State Water Resources Control Board to update their respective contaminated site inventories and create a statewide prioritization of contaminated sites at risk of sea-level rise and groundwater shoaling.

Location: Statewide

Strategic Plan Goals and Objectives: Goal 1: Safeguard Coastal and Marine Ecosystems and Communities in the Face of Climate Change; Objective 1.1: Build Resiliency to Sea-Level Rise, Coastal Storms, Erosion, and Flooding

Equity and Environmental Justice Benefits: Resource sharing of EJ communities' vulnerability to contaminated sites, addressing climate justice. Development of a user-friendly dashboard to share contaminated site information.

Findings and Resolution:

Staff recommends that the Ocean Protection Council (OPC) adopt the following findings:

“Based on the accompanying staff report and attached exhibit(s), OPC hereby finds that:

1. The proposed projects are consistent with the purposes of Division 26.5 of the Public Resources Code, the California Ocean Protection Act;
2. The proposed projects are consistent with the Budget Act of 2022 which included a \$50 million General Fund appropriation for coastal resiliency; and
3. The proposed projects are not ‘legal projects’ that trigger the California Environmental Quality Act (CEQA) pursuant to Public Resources Code section, section 15378.”

Staff further recommends that OPC adopt the following resolution pursuant to Sections 35500 *et seq.* of the Public Resources Code:

“OPC hereby approves the disbursement of up to \$1,305,000 to the California Department of Toxic Substances Control and \$695,000 to State Water Resources Control Board to update their respective contaminated site databases and create a statewide prioritization of contaminated sites at risk of sea-level rise and groundwater shoaling.

This authorization is subject to the condition that prior to disbursement of funds, the California Department of Toxic Substances Control and the State Water Resources Control Board shall submit for the review and approval of the Executive Director of the OPC detailed work plans, schedules, staff requirements, budgets, and the names of any contractors intended to be used to complete the projects, as well as discrete deliverables that can be produced in intervals to ensure the projects are on target for successful completion. All projects will be developed under a shared understanding of process, management, and delivery.”

Executive Summary:

Staff recommends OPC approve the disbursement of up to \$1,305,000 to the California Department of Toxic Substances Control and up to \$695,000 to the State Water Resources Control Board to update their respective contaminated site inventories and create a statewide prioritization of contaminated sites at risk of sea-level rise (SLR) and groundwater shoaling. Funding is sourced from the 2022 Budget Act, which appropriated \$50 million of General Funds to OPC for the purposes of addressing coastal resiliency.

Researchers, local leaders, environmental justice (EJ) representatives, and state agency staff understand the urgency of identifying and addressing contaminated sites that are vulnerable to SLR and groundwater shoaling. While some research has been performed to categorize various types of contaminated sites and identify generalized vulnerability to SLR, a major gap persists in the statewide characterization and remediation prioritization of these sites and their pollutants, as well as how climate change and changing conditions may impact contaminant fate and transport. This proposed project would support the Department of Toxic Substance Control (DTSC) and the State Water Quality Control Board (Water Boards) in assessing the statewide vulnerability of contaminated sites to the impacts of SLR, resulting in a list of priority sites at risk and a publicly accessible dashboard of information, with the goal of reducing impacts of SLR on the state’s most vulnerable and under-resourced communities.

Project Summary:

Background:

In 2019, UC Berkeley and UCLA launched [Toxic Tides](#), a research project to analyze the socioeconomic impact of sea-level rise (SLR) on contaminated sites along the coast of California. In a hallmark finding, the study discovered that at least 440 hazardous facilities, including power plants, refineries, industrial facilities, and hazardous waste sites, are at risk of coastal flooding by 2100 under a high emissions scenario). In 2022, the Legislative Analyst’s Office released a report entitled “[Climate Change Impacts Across California](#)”, which included the risk of SLR on contaminated sites via flooding and changes in groundwater flow. Recognizing the potential scale of this climate crisis and impacts to California communities, OPC subsequently funded UC Santa Cruz to lead a pilot program titled: *Characterizing Toxic Waste Sites in the San Francisco Bay Region and Their Exposure to Future Sea Level Rise and Groundwater Flooding* (More details in the [Staff Recommendation, Item 6a.3](#)) to characterize contaminated sites within the San Francisco Bay Area, create a set of criteria for prioritization, and map exposure pathways for contaminants. This project was officially launched in early 2023 with results expected in 2025.

Both DTSC and Water Boards have taken initial steps to address this issue, as each agency manages significant portions, but not all, of the state’s contaminated sites. Contaminated sites that pose risks to groundwater resources are managed by Water Boards, while DTSC handles sites with human health concerns. DTSC is beginning to evaluate these climate impacts with an initial review, finding that climate change could impact over 300 active cleanup sites, accounting for 15% of the total active projects. When considering the roughly 10,000 sites that DTSC has historically overseen and assuming a similar proportion, the total number of cleanup sites potentially impacted by climate change could be 1,500. To date, no study has been performed to assess specific SLR vulnerability on these sites. Water Boards has begun initial, cursory assessments to understand the impact of SLR on contaminated sites. With one foot of SLR, 53 open sites and 47 closed sites would be impacted. With six feet of SLR, these numbers increase to 250 and 204 sites respectively. Resulting impacts, such as contaminant chemical reaction, flow and transport, and potential vaporization, remain undetermined due to limited capacity and funding within these agencies. Understanding localized vulnerability and prioritization of risk is critical to taking meaningful action to remediate these sites, protect habitats, and address the disproportionate impacts of climate change on communities burdened by environmental and social injustice.

Project Summary:

This project will accomplish two sets of parallel outcomes. Together, the project will increase statewide capacity to address contaminated site vulnerability to SLR and groundwater shoaling,

expand and modernize inventories of contaminated site and SLR data, prioritize high risk sites, and increase public transparency and awareness of location and type of contamination. This project directly supports OPC’s Strategic Plan Target 1.1.3, which aims to further science and adaptation planning for contaminated sites vulnerable to SLR. The project also advances OPC’s [SLR Action Plan](#) via Key Actions 3.2, 5.3, 5.4, and 6.13, which all address contaminated sites and SLR vulnerability, as led by DTSC and Water Boards and due for completion in 2023. Specific project objectives are discussed below:

Through two separate approaches and work plans, both projects will achieve the following:

- Increase programmatic capacity to assess and manage vulnerabilities and impacts of SLR on contaminated sites.
- Update/expand modernize online databases (DTSC’s Envirostor and Water Boards’ Geotracker) to increase site data, include historic/overlooked sites, and incorporate SLR and groundwater shoaling metrics.
- Development of a set of criteria, including proximity to EJ communities, contaminant type, and SLR flooding, to determine a list of priority sites vulnerable to SLR.
- Develop a public dashboard featuring both agencies’ online databases that can be used to identify sites, contaminants, priority, and risk.
- Increase knowledge base around fate and transport of contaminants when comingled with saltwater.

This project has been developed collaboratively with UC Santa Cruz’s *Characterizing Toxic Waste Sites in the San Francisco Bay Region and Their Exposure to Future Sea Level Rise and Groundwater Flooding*, funded by OPC. The project teams will coordinate to share contaminated site data, contaminant transport research, and most importantly, site criteria for assessing SLR vulnerability. While the existing UC Santa Cruz project is limited to the San Francisco Bay, this proposed project will expand findings statewide and build capacity within state agency partners.

Equity and Environmental Justice Benefits:

Contaminated sites are heavily concentrated around EJ communities, where residents have been historically underserved, and have fewer resources to mitigate the dangerous impacts. This gives rise to climate justice concerns as EJ communities are more likely to live near at-risk hazardous sites that are vulnerable to SLR. This proposed project will help identify contaminated sites at risk of SLR which is critical to inform agency programs and investment priorities and increase knowledge of SLR-associated hazards and risks for decision makers and the public. Criteria to determine priority sites for remediation or adaptation will include an evaluation of the proximity of contaminated sites to EJ communities. Project outcomes and priority sites will be shared with

community partners and EJ representatives. Feedback and input will be solicited to ensure the findings are useful. Finally, the project will create a publicly facing, user-friendly, navigable and searchable online dashboard to increase public awareness about site location, contaminant, and vulnerability to SLR.

These project components help achieve OPC’s [Equity Plan](#) Goal: Designing Equitable Coastal and Ocean Policy Making, and Goal 2: Integrating Equity in Coastal and Ocean Research.

About the Funding Recipients:

DTSC is a regulatory agency committed to safeguarding public health and the environment from harmful substances. With a mission to manage hazardous waste and promote sustainable practices, DTSC plays a pivotal role in ensuring the safe handling, treatment, and disposal of toxic materials. Through their diligent enforcement of environmental laws and regulations, DTSC strives to protect communities and natural resources, fostering a cleaner and healthier California for present and future generations.

The Water Boards are regulatory entities responsible for protecting and managing the state's water resources. Comprising of the State Water Resources Control Board and nine Regional Water Quality Control Boards, the Water Boards work collaboratively to ensure the preservation and enhancement of California's water quality and supply. Together, the Water Boards employ science-based decision-making processes and enforce water quality standards while actively engaging with stakeholders and the public to address water-related challenges. Through their dedication and expertise, the Water Boards play a vital role in safeguarding the environment, public health, and sustainable water management for the people of California.

Project Timeline:

The project will begin in January 2024 and complete in December 2026.

Project Financing:

Staff recommends that the Ocean Protection Council (OPC) authorize \$1,305,000 to the California Department of Toxic Substances Control and \$695,000 to State Water Resources Control Board for the Contaminated Sites Inventory and Remediation Prioritization to Address Risk to Sea-Level Rise.

California Ocean Protection Council	\$2,000,000
TOTAL	\$2,000,000

The anticipated source of funds for this project is the Budget Act of 2022, which included a \$50 million General Fund appropriation to OPC for grants or expenditures for the purpose of preserving and conserving California’s coasts and oceans for human and natural communities. This project addresses the resiliency of coastal communities by addressing the vulnerability of contaminated sites in the face of climate change.

Consistency with California Ocean Protection Act:

The proposed project is consistent with the Ocean Protection Act, Division 26.5 of the Public Resources Code, because it is consistent with trust-fund allowable projects, defined in Public Resources Code Section 35650(b)(2) as projects which:

- Eliminate or reduce threats to coastal and ocean ecosystems, habitats, and species.
- Improve coastal water quality.
- Allow for increased public access to, and enjoyment of, ocean and coastal resources, consistent with sustainable, long-term protection and conservation of those resources.
- Improve management, conservation, and protection of coastal waters and ocean ecosystems.
- Provide monitoring and scientific data to improve state efforts to protect and conserve ocean resources.
- Protect, conserve, and restore coastal waters and ocean ecosystems.
- Provide funding for adaptive management, planning coordination, monitoring, research, and other necessary activities to minimize the adverse impacts of climate change on California's ocean ecosystem.

Compliance with the California Environmental Quality Act (CEQA):

The proposed project is not ‘legal projects’ that triggers the California Environmental Quality Act (CEQA) pursuant to Public Resources Code section 21068 and Title 14 of the California Code of Regulations, section 15378. If it were determined to be a ‘legal project’ under CEQA, the proposed project is categorically exempt from review under CEQA pursuant to 14 Cal. Code of Regulations Section 15306 because the projects involve information collection, consisting of data collection, research, and resource evaluation activities that will not result in a serious or major disturbance to an environmental resource. If this were to occur, OPC staff would file a Notice of Exemption.