

**STAFF REPORT  
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**INFORMATIONAL UPDATE ON THE SELBY SLAG REMEDIATION PROJECT**

**INTRODUCTION:**

The purpose of this staff report is to update the Commission and the public on the Selby Slag Remediation Project (Project), a proposed cleanup activity to prevent slag at the Selby Slag Site (Site) from affecting the San Francisco Bay. The Commission has jurisdiction over a portion of the Site and is partly responsible for remediating, or cleaning up, the Site, pursuant to a court-approved settlement agreement. The Site is listed on the Hazardous Waste and Substances Site List, also known as the Cortese List.

The Site consists of about 66 acres located in Contra Costa County, California, near the communities of Rodeo and Crockett and next to the southern shoreline of the San Pablo Bay and the Carquinez Strait, both part of the San Francisco Bay. The closest residence is about half a mile from the Site.

The Commission has jurisdiction over present day and historic tidelands on the Site. However, because slag was deposited on land and within tideland areas on the Site for over half a century, determining the exact boundaries of the State-owned is difficult. The Commission leases its portion of the Site to C. S. Land, Inc (C. S. Land), an affiliate of Phillips 66 Company, through Lease No. PRC 5736. A diagram of the lease area is attached as Exhibit A; however, this lease area does not necessarily define the extent of the Commission's jurisdiction. The lease authorizes C. S. Land to hold the Commission's portion of the Site in an "undeveloped state." Lease No. PRC 5736 expired on January 1, 2006, and is in holdover. C. S. Land also owns the private property portions of the Site.

The California Department of Toxic Substances Control (DTSC), oversees cleanup activities at the Site and is the lead agency for review of the cleanup activities under the California Environmental Quality Act (CEQA).

**BACKGROUND:**

In 1872, Thomas Selby constructed a lead smelter at the Site. The American Smelting and Refining Company, Inc., (ASARCO) assumed operation of the

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smelter in 1912 and expanded the smelting operation to include copper smelting and gold extraction. During the historic smelting operations, slag, a waste product created from separating metals from ore during the smelting process, was deposited on the Site. Beginning in the late 1940s, the State, unaware of the toxic character of the slag, negotiated leases of tidelands to ASARCO that authorized placement of the smelter slag on State-owned land.

Beginning in the 1970s, environmental protection and remediation laws and regulations were adopted by state and federal agencies which, along with shrinking business, led to the end of smelting operations at the Site.

In 1977, Wickland Oil Company (Wickland) purchased the smelter from ASARCO and applied to the Commission for a lease of the Site. Wickland intended to develop a coal terminal at the Site. The Commission authorized the issuance of two leases to Wickland in 1979 ([Item 24, September 26, 1979](#)) – Lease No. PRC 5735, for a nearby marine terminal, and Lease No. PRC 5736, which authorized Wickland to hold the Site in an “undeveloped state until final use [is] approved by the State,” with a term of 25 years. However, the Commission and Wickland did not sign the leases until 1981.

In 1980, the California Department of Health Services informed Wickland that the slag on the Site could pose a threat to human health and requested additional investigation of the slag’s impacts. After subsequent studies, regulatory agencies determined that the slag was hazardous and must be cleaned up.

In 1983, the Department of Health Services listed the Site on the Hazardous Waste and Substances Site List, or Cortese List. The Cortese List is a planning document used by the State of California to provide information about the location of hazardous materials sites. The list, or a site’s presence on the list, affects permitting processes and compliance with CEQA for activities on the site.

That same year, Wickland sued ASARCO and the Commission under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) to determine responsibility for cleaning up the Site. ASARCO, the Commission, and Wickland resolved the lawsuit through a settlement agreement, approved by the United States District Court in 1989 though [Consent Judgment No. C-83-5906-SC](#).

Under the 1989 settlement agreement, ASARCO, the Commission, and Wickland agreed to clean up the Site, with oversight by the California Department of Health Services. The settlement agreement allocated the cost of initial cleanup activities equally between the three parties. For additional cleanup measures, the settlement agreement allocated ASARCO 42 percent of the costs; the

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Commission 38 percent of the costs; and Wickland 20 percent of the costs. The settlement agreement did not cap the total cleanup costs each party could be required to pay.

The settlement agreement required an initial cleanup of the Selby Slag Site, which consisted of the following measures:

- Approximately 100,000 cubic yards of soil from an acid-affected area in the eastern region of the Site (the former sulfur dioxide plant area) was excavated, treated with limestone, and backfilled under a temporary asphalt cap.
- Approximately 98,000 cubic yards of offshore sediments (slag mixed with bay sediments) were dredged and deposited on-site.
- After the placement of the dredged offshore sediments, the Site was graded, a storm water run-off drainage system was installed, and the Site was capped with 4 inches of asphalt topped with a slurry seal to prevent storm water infiltration.
- A sewage oxidation pond was filled with soil and closed in 2006 after sewer lines were constructed to transport sewage to the Rodeo Sanitary District Wastewater Treatment Plant.

Except for the filling of the sewage oxidation pond (completed in 2006), the initial cleanup measures were completed by 1992.

In 2000, DTSC was designated as the administering agency for the Selby Slag Site under Health and Safety Code section 25260 et seq., replacing the Department of Health Services as the oversight agency for cleanup of the Site. As the administering agency, DTSC determines the adequacy of investigation and cleanup activities at the Site and the extent to which the activities comply, or fail to comply, with applicable state and local laws, ordinances, regulations, and standards.

Additionally, in 2000, C. S. Land purchased Wickland's portion of the Site and assumed Wickland's rights and obligations under the settlement agreement. The Commission approved an assignment of Wickland's Lease No. PRC 5736 to C. S. Land ([Item 37, June 27, 2000](#)). ASARCO and C. S. Land then formed Selby Resources, LLC, to coordinate their cleanup responsibilities at the Site.

In 2005, ASARCO declared bankruptcy. In a 2008 bankruptcy court judgment, the court set aside about \$34 million of ASARCO's money to cover ASARCO's

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ongoing share of cleanup costs for the Site. Under the bankruptcy judgment, DTSC administers the disbursement of funds from this account.

### **PROPOSED PROJECT:**

In the early 2000s, DTSC asked ASARCO, the Commission, and C. S. Land to investigate potential impacts to the San Francisco Bay from the Site that may not have been addressed in the initial cleanup. Subsequent studies found seven toxic metals (antimony, arsenic, cadmium, copper, lead, nickel, and zinc) in the slag that were affecting the San Francisco Bay. The studies showed that as groundwater moves into the slag from upland areas, it picks up metals in the slag and mixes with Bay water as the tides move in and out of the capped slag on-site. Tidal action and surface wave action erode slag and the asphalt cap along the shoreline. There is also slag in the tidal and shoreline areas that was not dredged in the initial cleanup.

Based on these studies, DTSC asked for a Feasibility Study to evaluate potential remediation strategies to prevent the Selby Slag Site from contaminating the Bay. C. S. Land and the Commission prepared a draft Feasibility Study through their consultant AECOM. DTSC reviewed and approved the [Final Feasibility Study](#) in 2012.

C. S. Land and the Commission, through their consultant AECOM, then developed a proposed cleanup approach in coordination with DTSC based on the strategies discussed in the Feasibility Study to prevent the slag from affecting the Bay. DTSC reviews and approves cleanup strategies for sites by approving a Remedial Action Plan (RAP), which describes a proposed cleanup strategy. As stated in a [Fact Sheet](#) developed by DTSC, the proposed cleanup approach (the Project) involves the following:

- Installing a shoreline wall to prevent discharge of contaminated groundwater into the bay and tidal water leaching of contaminants from the Site. Final design of the wall would consider anticipated sea-level rise and design code requirements. The shoreline wall would be installed using pile driving equipment, drill rigs, and excavators. It would consist of steel sheet piles, or posts, that have interlocking edges. The finished shoreline wall would be flush with the elevation of the Site.
- Dredging slag from the bay and placing it on-site. Following the slag removal from the bay, the dredged area would be filled with clean material and rock, where necessary, to prevent erosion of the shoreline. Water-based equipment (such as tugboats and transport barges) and land-based equipment (such as excavators) would be used to dredge or excavate slag from the bay and transport it to the Site. The existing asphalt cap would be

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temporarily removed from portions of the Site to allow placement of the dredged slag from the bay. The opened cap area would be regraded and repaved with new asphalt.

- Installing an upgradient groundwater management system consisting of groundwater pumping wells located outside the Site (upgradient) and a containment wall near the western end of the Site to prevent groundwater from entering the Site. The pumped groundwater would be discharged to a local stormwater system.
- Installing an interior groundwater collection and disposal system consisting of pumping wells located inside the Site to keep contaminants from entering the bay. The treatment system would clean groundwater before discharging to the local stormwater system. Waste generated from the treatment processes would be transported to a permitted landfill.
- Adopting institutional controls, such as land use covenants or a consent agreement, to prevent sensitive uses such as residences, schools for persons under age 18, hospitals, and daycare centers on the Site.
- Performing ongoing maintenance of shoreline walls, the upgradient groundwater extraction system, the on-site groundwater extraction and treatment system, and the asphalt cap.

The initial construction work is estimated to take 3 years to build at a cost ~~between of approximately \$80 and \$90~~ \$76 million, with completion projected for 2023. Long-term pumping and treatment of the contaminated groundwater, monitoring and maintenance of the Site and proper disposal of the removed toxic metals would continue, and is anticipated to cost about ~~\$130~~ \$110 million for the first 100 years. The costs would be divided based on the cost-sharing framework established in the settlement agreement, with the Commission paying 38 percent.

### **PUBLIC REVIEW OF THE PROJECT:**

In January 2018, DTSC published a [draft Environmental Impact Report](#) (EIR), analyzing the Project's environmental impacts and [draft RAP](#), describing the Project's proposed cleanup approach. DTSC included the draft RAP as an appendix within the draft EIR. DTSC held two public meetings to receive comments on the draft EIR and draft RAP – on February 1, 2018, in Crockett, and on April 3, 2018, in Vallejo. DTSC extended the initial 45-day public comment period for a second 45-day period, providing a total of 90 days for public comment, which ended on April 12, 2018. DTSC, as the CEQA lead agency, is preparing formal responses to public comments on the draft EIR and

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the draft RAP as part of its review process. Commission staff does not have an estimate for when DTSC will release its formal responses. After providing formal responses to comments, DTSC will review the EIR and RAP internally and decide whether to certify the EIR and approve the RAP.

Commission staff facilitated a site visit for 10 community advocates at their request on May 17, 2018. This visit was an opportunity for advocates to tour the Site, and for Commission staff to answer questions about the Commission's jurisdiction, practices, and policies; and to learn about the public's concerns.

**FUTURE SITE USE:**

The proposed Project does not analyze or authorize any future uses of the Selby Slag Site, and staff has not received any applications for use of the Site. C. S. Land's lease of the Site does not authorize it to develop the Site after cleanup activities are complete.

The Commission would consider any application it receives for use of the Site at a properly noticed public meeting. The Commission has discretion to approve or deny any application to use its portion of the Site, and would consider the State's best interests, the Public Trust Doctrine, staff recommendations, and public comments and concerns when making its decision. Additionally, any proposed uses of the Site would be subject to a separate environmental impact analysis and public review under CEQA.

Any proposed new use of the Site would also need to comply with the requirements of all other agencies which regulate the Site, including but not limited to the San Francisco Bay Conservation and Development Commission, California Department of Fish and Wildlife, the San Francisco Bay Regional Water Quality Control Board, U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, and National Marine Fisheries Service.

**EXHIBIT:**

- A. Lease Area Diagram





**LEGEND**



SUBJECT PARCEL

**NOTES**

- 1) THIS PLAT DOES NOT REPRESENT A THOROUGH ANALYSIS BASED ON A FIELD SURVEY OF ANY OF THE BOUNDARIES OR OTHER LINES SHOWN. IT ALSO DOES NOT CONSTITUTE A COMPLETE SEARCH OF ALL AVAILABLE RECORDS. IT IS TO BE USED AS AN APPROXIMATE GRAPHICAL REPRESENTATION OF RECORD LINES. A THOROUGH AND COMPLETE SURVEY MAY PLACE THESE LINES AND ASSOCIATED POINT AT DIFFERENT LOCATIONS.
- 2) THIS PLAT HAS NOT BEEN APPROVED BY THE STATE LANDS COMMISSION, AND DOES NOT CONSTITUTE AN OFFICIAL PLAT OF SUCH COMMISSION, NOR DOES IT ESTABLISH THE BOUNDARY LINES OR LIMITATIONS OF ANY STATE-OWNED LANDS DEPICTED THEREON. THIS PLAT CONSTITUTES A PRELIMINARY PLAT AND IS SUBJECT TO CHANGE.

