

Executive Summary

The Sacramento-San Joaquin River Delta (Delta) region is an important part of California's environmental and economic health. However, abandoned commercial vessels are a significant problem for California and the Delta. Abandoned vessels are or can become navigation hazards, environmental hazards, and public health and safety hazards.

Abandoned commercial vessels are also costly to process, remove and dispose. Costs range from tens of thousands to several million dollars per vessel depending in part on its size, location, and condition. Millions of dollars have been spent in the greater San Francisco Bay and Sacramento-San Joaquin Delta regions since 2014 for hazardous substance removal alone.

In the Delta region, numerous jurisdictions exist that make effective abandoned commercial vessel management and removal difficult to coordinate, with no unifying program to address ongoing issues. Budget constraints coupled with significant costs associated with removing these typically large vessels are also obstacles to removal.

A 2017 aerial survey identified 55 vessels that may qualify as abandoned commercial vessels in the five-county area that covers the Delta region. Most of the waterways that make up the Delta are State-owned sovereign lands under the California State Lands Commission's (Commission) jurisdiction and are subject to the Common Law Public Trust Doctrine.

Public Resources Code section 6302.2 directs the Commission to develop an abandoned commercial vessel removal plan (Plan) and implement it upon funding. The Commission was directed to develop the Plan by July 1, 2019, in consultation with relevant state and local agencies directly involved in abandoned commercial vessel removal, to prioritize removal based on risks to the Delta environment and public health and safety. In addition to agency consultation, staff made the draft Plan available to other stakeholders and interested parties for comment. Several comments were received and incorporated into the Plan.

The Plan proposes to accomplish four objectives:

- 1. Develop a risk-based systematic approach for prioritizing vessels.
- 2. Develop the program infrastructure needed to facilitate ongoing removal efforts.
- 3. Develop a cost basis for budgeting.
- 4. Provide general recommendations for future actions needed to prevent or minimize ongoing abandoned commercial vessel problems.

Plan implementation will add new aspects to the Commission's existing Abandoned Vessel Program (Program), so additional resources will be required for start-up and ongoing operations. At a minimum, staff recommends adding position allocations for a

boat captain, support staff, and a supervisor. Funding will also be necessary for actual vessel removal activities.

The Plan includes various elements for successful implementation. Upon start-up, staff will perform a year-long ground truthing survey to verify known abandoned commercial vessels and identify previously unknown vessels to obtain comprehensive data. Identified vessels will be prioritized for removal using a four-level risk-based matrix ranging from "Priority 1 Emergency – Immediate or High Risk" to "Priority 4 Non-Emergency – No Immediate Risk." Other factors can also be used to establish priority, such as a vessel's size, and whether vessels are clustered together.

The Plan proposes to develop a database that can be used by staff, partner agencies, and the public. The database can allow for mobile data collection and field updates and can be set up to provide varying levels of access and configurable mapping.

Ownership identification and notification are important parts of the Commission's Program and are detailed under the Plan's required noticing process. Commission staff will make a reasonable and good faith attempt to identify owners of record to allow owners an opportunity to claim vessels, and to allow the Commission an opportunity to collect costs associated with a vessel's identification and removal. Under existing law, abandoned commercial vessels can be removed either as marine debris or as a trespassing vessel.

Added Program staff time and costs are divided by significant activity and whether allocated toward start-up or ongoing functions. Where each can be reasonably estimated, estimates are provided in Tables A through D. Table E provides a summary total of all estimated Program staff time at approximately 3,000 hours for the first year, and approximately 1,500 hours for year two and ongoing years, and costs of approximately \$2.2 million for the first year. Ongoing costs are unknown but will dependent primarily on the yearly vessel removal budget to be estimated in the previous fiscal year based on the vessel removal priority list established in the first year. It is important to note that these are estimates only and will be revised to reflect new or better information not currently available.

The Plan would be implemented upon funding, although no specific funding mechanism is identified. However, funding options are briefly discussed, including legislative appropriations and the State's normal budget process.

Future program recommendations are also presented to help prevent additional commercial vessels from becoming abandoned. Recommended future actions include: expanding to a statewide program; implementing ownership requirements for marginal and end-of-life vessels so they are less likely to be acquired by individuals who lack financial resources to adequately rehabilitate or dispose of them; and collaborating with elected officials to help facilitate abandoned vessel removal efforts.

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Definitions

<u>Attractive nuisance</u>- A dangerous condition on a landowner's property that may attract people (especially children) onto the land and may involve harm to their health or safety.

<u>Categorical Exemption</u>- Description of a project type which the Secretary of the California Natural Resources Agency has determined does not usually have a significant effect on the environment.

<u>Freeboard</u>- In commercial vessels, the distance from the waterline to the ship's maximum loading limit line, measured at the lowest profile point where water can enter the vessel.

<u>Invasive species</u>- A species that is not native to a specific location and that tends to spread to such a degree that it causes damage to the native environment, human economy or human health.

<u>Listing</u>- The degree to which a vessel leans or tilts to either side.

<u>Marine Surveyor</u>- A person who inspections, surveys, or examines marine vessels to assess, monitor, and report on their condition.

Mooring- The act of making fast a vessel with lines or anchors; the lines and anchors.

Introduction

The Sacramento-San Joaquin River Delta (Delta) is an extremely important feature in California's landscape and economy. As one of the largest estuaries in western North America, the Delta covers an area of over 1,100 square miles and includes approximately 700 miles of waterways. Together these two rivers convey over 30 million acre-feet of water or almost half of the state's total water runoff each year, representing a significant statewide source of irrigation and drinking water.

The Delta is home to over 500 plant and animal species, including 22 fish species. About two-thirds of the salmon that spawn in California access upstream rivers through the Delta. Other listed threatened or endangered fish species that inhabit the Delta include the green sturgeon, delta smelt, and longfin smelt. The region lies along the Pacific flyway where almost half of California's migrating waterfowl pass through the Delta.

As a transportation corridor, the Delta links California's Central Valley agricultural products by way of the inland ports of Sacramento and Stockton to the San Francisco Bay and national and international markets. It also provides valuable recreational boating opportunities. The Delta region includes over 100 marinas and accounts for over 7 million annual visitor-boating days in California.

The Delta is an important resource for California, but that resource comes with a costly problem where boating is concerned: abandoned vessels. Unlike an automobile that has some inherent scrap value and is easy to recycle once it reaches the end of its life cycle, a vessel, especially a larger vessel at the end of its useful life, tends to be more costly and difficult to dispose of than it is worth, and so is more likely to be abandoned. Because of its expanse and hundreds of miles of waterways, the Delta is often the dumping ground for many of the vessels abandoned in northern and central California.

As of December 2018, California had almost 670,000 registered vessels statewide, but also over 430,000 expired vessel registrations. The expired vessel registration total likely represents vessels that are at or nearing the end of their life cycle, with many that are now abandoned or could be abandoned in the future.

California has an abandoned recreational vessel removal program administered by the California Department of Parks and Recreation, Division of Boating and Waterways. The program facilitates recreational vessel removal through the Surrendered and Abandoned Vessel Exchange program (SAVE), which includes the Abandoned Watercraft Abatement Fund and the Vessel Turn-In Program. The SAVE program is used for removing and disposing of abandoned recreational vessels but SAVE funds may not be used to abate commercial vessels.

Background

Abandoned commercial vessels represent a small fraction of the total of abandoned vessels in the Delta but are still a significant problem. Abandoned vessels can break free from moorings and drift uncontrolled into navigation channels, becoming a threat to other vessels; they can sink, becoming hidden hazards to boaters and leach heavy metals into the environment; they can release hazardous wastes such as diesel fuel, hydraulic fluid, and asbestos; they can be a vector for introducing non-native invasive species into California's waterways, causing environmental degradation; and they can become attractive nuisances or locations for illegal activities, putting the public at risk.

Abandoned commercial vessels are also costly to process, remove and dispose of. Costs range from tens of thousands to several million dollars per vessel depending in part on its size, location, and condition. The primary cost factors are whether a vessel is floating or sunk (sunken vessels are significantly more costly to remove), the size or tonnage of the vessel, and the presence and extent of hazardous materials. Comprehensive information on accurate disposal costs does not exist, but individual

examples are available to illustrate the magnitude. For instance, a coalition of public agencies recently removed and destroyed two vessels, the *Blackhawk* and *Black Kite*,

twin 110-foot steel-hulled tugboats illegally abandoned near the City of Richmond.



"Black Kite" at East Bay Regional Parks Historic Dock

The cost for removal and destruction alone was close to \$400,000. This total does not include hazardous materials removal performed by the U.S. Environmental Protection Agency. It also does not account for staff time of the state, federal, and local agencies that coordinated for more than a



"Blackhawk" at Port of Richmond



"Black Kite" Demolition at Dry Dock, Mare Island

year to accomplish removal and destruction, nor does the total include over \$41,000 the U.S. Coast Guard spent for multiple spill responses to aid these vessels and protect the environment. Since 2014, the U.S. Coast Guard has spent almost \$4.8 million removing hazardous substances from sunken and endangered abandoned commercial vessels in

the greater San Francisco Bay and Delta regions alone. That figure does not include actual vessel removal and disposal.

Effective management for trespassing commercial vessels prone to abandonment is difficult to coordinate. The Delta area includes major bays and ship channels and a vast network of winding, interconnected rivers and sloughs cutting across county boundaries. At any given location many agencies may be involved, each with different jurisdiction, authority, and mandates, but there is no unifying program to address ongoing issues. For example, a suspect vessel may be identified in one agency's jurisdiction, but before that agency can take action the vessel's owner moves it to another area under a different agency's jurisdiction, where the process of identification and removal efforts start all over again, assuming the agency has the necessary program, funding, and staffing in place to deal with the problem. Budget constraints coupled with the significant costs associated with removing these typically large vessels are also obstacles to removal.

A 2017 aerial survey of abandoned vessels performed by the California Department of Fish and Wildlife's Office of Spill Prevention and Response (OSPR) found 55 commercial and former military vessels in the five-county area (Contra Costa, Sacramento, San Joaquin, Solano, Yolo) that encompasses the Delta region. Most of the waterways in the Delta are State-owned sovereign lands under the California State Lands Commission's (Commission) jurisdiction and subject to the Common Law Public Trust Doctrine.

When California became a state in 1850, by virtue of its sovereignty it acquired all the natural, navigable waterways, and tide and submerged lands within its boundaries. These lands, and certain others acquired by the State since 1850 are now referred to as sovereign lands. Sovereign lands are held in trust for the people of California and can only be used for public purposes consistent with the provisions of the common law Public Trust Doctrine. This doctrine protects the public's rights to use the State's waterways for certain purposes such as fishing, water dependent commerce and navigation, recreation, ecological preservation, and scientific study.

Assembly Bill 2441 (Frazier), Chapter 540, Statutes of 2018, directs the Commission to develop a removal plan and implement it upon funding. The text of AB 2441, codified as Public Resources Code section 6302.2 reads:

- (a) The commission shall, in consultation with other relevant state and local agencies directly involved in the removal of abandoned vessels, by July 1, 2019, develop a plan for the removal of abandoned commercial vessels.
- (b) The plan required to be developed pursuant to subdivision (a) shall prioritize the removal of vessels based on the risk an abandoned commercial vessel presents to the environment of the Sacramento-San Joaquin Delta and to the health and safety of the public.

- (c) The commission shall implement the plan required to be developed pursuant to subdivision (a) upon receipt by the commission of funds appropriated by the Legislature and any federal or private funds for this purpose.
- (d) For purposes of this section, "Sacramento-San Joaquin Delta" means the lands within the boundaries of the Counties of Contra Costa, Sacramento, San Joaquin, Solano, and Yolo.

The five-county Sacramento-San Joaquin Delta area is shown below in Figure 1.



Figure 1 - Five County Plan Area Map

Plan Scope

The Abandoned Commercial Vessel Removal Plan (Plan) proposes to accomplish four objectives:

- Develop a systematic approach to prioritize abandoned commercial vessels in the five-county Sacramento-San Joaquin Delta region for removal purposes, based on the relative hazard each vessel or group of vessels pose to the environment, and to public health and safety.
- 2. Enhance and further develop the Commission's existing Abandoned Vessel Program (Program) structure, processes, and procedures, in coordination with agency partners, to facilitate ongoing commercial vessel removal, including the current vessel inventory and vessels abandoned in the future.
- 3. Develop a cost basis for budgeting purposes, to include one-time start-up costs and projected annual costs for vessel removal and program maintenance.
- 4. Provide recommendations for additional mechanisms to help prevent commercial vessels from becoming a problem in the future.

Strategic Plan Goals

The Plan touches on aspects of all four of the Commission's Strategic Plan goals:

- Lead Innovative and Responsible Land and Resource Management
- Meet the Challenges of Our Future
- Engage Californians to Help Safeguard Their Trust Lands and Resources
- Cultivate Operational Excellence by Integrating Technology

The Commission's Strategic Plan can be viewed here: <u>State Lands Commission 2016-2020 Strategic Plan</u>, or is available for viewing on the Commission's website at: www.slc.ca.gov.

Commercial Vessel Definition

For purposes of this Plan, a commercial vessel is generally defined as:

- A vessel of 30 feet or more in length, and
- That was manufactured for commercial or military purposes *or* that was used for all or some portion of its functional life for other than recreational purposes.

The State of California has a funded abandoned recreational vessel removal program administered by the California Department of Parks and Recreation, Division of Boating and Waterways (DBW). The program facilitates recreational vessel removal through the Surrendered and Abandoned Vessel Exchange program (SAVE), which includes the

Abandoned Watercraft Abatement Fund and the Vessel Turn-In Program. SAVE program funds may not be used to abate commercial vessels.

Generally, vessels eligible for abatement under the DBW program would not qualify for removal under this Plan, though there may be some overlap or borderline cases. Commission staff would work with DBW to eliminate gaps in program coverage and minimize overlap.

Abandoned Commercial Vessel Distribution

Abandoned commercial vessels located in the Plan area and identified in the OSPR survey are distributed in the Delta and its waterways as shown below in Table 1:

County	Vessel Numbers	Major Waterways
Contra Costa	14	San Joaquin River Broad Slough Old River San Pablo Bay
Sacramento	7	Sacramento River American River San Joaquin River Mokelumne River Georgiana Slough 3-Mile Slough 7-Mile Slough
San Joaquin	12	San Joaquin River Mokelumne River Stanislaus River Calaveras River Little Potato Slough Disappointment Slough Little Connection Slough 14-Mile Slough Middle River Turner Cut
Solano	19	Sacramento River Suisun Slough/Bay Grizzly Bay Carquinez Strait Steamboat Slough
Yolo	3	Sacramento River

 Table 1 - Plan Area Vessel Distribution by County

The OSPR aerial survey was not intended to be comprehensive. It did not include any portion of San Pablo or San Francisco Bay within Contra Costa or Solano counties. Commission staff believes there are additional abandoned commercial vessels unaccounted for in the Plan area that will be discovered during a proposed ground-truthing survey. Vessels will be added to the outstanding list as they are documented. The distribution of known abandoned commercial vessels within the Plan area is shown below in Figure 2.

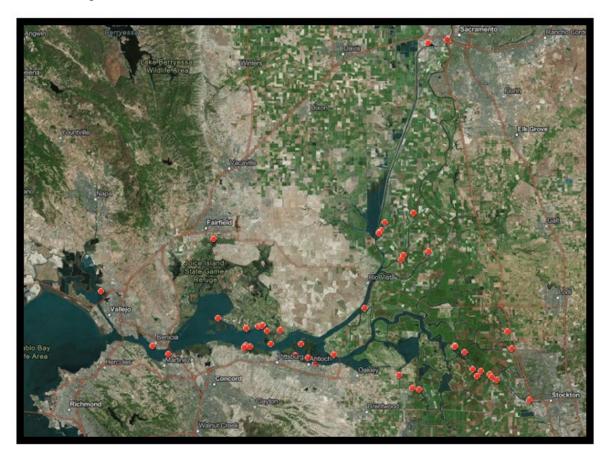


Figure 2 - Abandoned Commercial Vessel Distribution Map

Program Structure Overview

Staffing

As this would add new elements to the Commission's existing Abandoned Vessel Program (Program), additional staffing will be needed both for Plan start-up and to address the Program's ongoing added workload.

Some start-up activities can be handled with existing resources, as these are activities Commission staff already performs such as human resources, contracting, and fiscal services functions, although additional staff time allocations may be required. Coordinating preparation and review of an Initial Study/Mitigated Negative Declaration

(IS/MND) under the California Environmental Quality Act (CEQA) for the Plan's proposed activities can be handled by existing staff. However, the preparation cost and review will be a significant one-time expenditure that will require an augmentation to the Commission's budget.

Some start-up and ongoing Plan activities will require assignment to existing staff or adding additional staff to the Commission's current budgeting and personnel needs as these will be new activities not currently handled by existing staff. Significant new start-up functions will include performing a one-time ground truthing survey, prioritizing abandoned vessels for removal, developing and launching an abandoned commercial vessel database and user interface, and engaging the administrative process that allows the Commission to legally remove and dispose of abandoned commercial vessels.

Additional ongoing staff functions will include conducting periodic site surveys to maintain the vessel database physical inventory, coordinating with other partner agencies and stakeholders, performing database maintenance, researching vessel ownership identification, posting and mailing removal notices, fund and budget management, contractor engagement and oversight. and conducting any follow-up actions such as cost recovery once removal and disposal are accomplished.

Although specific job classifications have not been determined, for successful Plan implementation staff recommends adding authorized positions for a boat captain, support staff, and supervisor.



Sunk & Abandoned Spud Barge, New York Slough

Vessel Ground Truthing Survey

Recent efforts to document abandoned vessels in the Plan area have been conducted by OSPR using aerial surveys and the U.S. Coast Guard Auxiliary, while Commission staff have further documented some vessels while on site visits. Efforts thus far have yielded limited vessel data, such as length, hull composition, and identification markings. For staff to effectively prioritize vessel removal and engage the required administrative process, a thorough survey must be conducted to inspect each vessel on the list and identify missing or incomplete information. An initial survey is expected to include field work conducted on average twice per week over a seven-month period. A full year will be allocated to complete the survey, to allow for variations in weather and

local site conditions that may otherwise preclude safe site inspections.

In addition to field work, staff will also enter collected data into an interactive database. establish a priority removal list once the vessel survey commences, and coordinate with other agencies as needed. Staff time and costs for this one-time survey are discussed in more detail in the Cost Analysis and Budgeting section.



Abandoned Former Military Lash Barge, San Joaquin River

Risk-Based Priority Matrix

Existing abandoned commercial vessels in the Delta region are dispersed over a large area and are in varying states of decay. The cost for vessel removal and the large number of vessels will require a systematic removal plan that will occur over a period of years. To facilitate prioritizing vessel removal, the following Priority Matrix will be used to evaluate each vessel as the vessel survey is conducted, with vessels posing a higher actual or potential environmental and public health and safety hazard taking priority, within budgetary constraints and contractor capacity.

Priority 1

Emergency – Immediate or High Risk

General Description:

Vessel is floating, in danger of sinking, breaking up, or already sunk or broken up, and is a navigation, environmental or public health and safety hazard, or is deemed to be an imminent threat of becoming a navigation, environmental, or public health and safety hazard.

Evaluation criteria:

- **Seaworthiness state:** Vessel is floating with very little freeboard, severely listing, or sunk.
- **Mooring condition:** Mooring lines separating or poorly anchored, dragging anchor, adrift, or grounded.
- **Hazard state:** Adrift in or grounded in a navigation channel or moderate to high traffic location; leaking fuel or other hazardous substances; or known to or likely to contain hazardous substances that pose an imminent threat of spill or release.
- Public accessibility state: Public can easily access the vessel.

Priority 2

Non-Emergency – Moderate Risk

General Description:

Vessel is floating, sunk, or broken up, and poses a moderate navigational, environmental, or public health and safety threat; vessel could become a Priority 1 Emergency threat with a change in circumstances.

Evaluation criteria:

- **Seaworthiness state:** Vessel is floating with moderate to minor reduction in freeboard, minor to moderate listing, or sunk.
- **Mooring condition:** Mooring lines old, worn, or weathered but otherwise adequately moored, anchored, or grounded, or moored to improper or inadequate structure.
- Hazard state: Located immediately adjacent to navigation channels or in or near moderate to high traffic areas but not currently a navigational hazard, may contain hazardous substances but no imminent threat of spill or release.
- Public accessibility state: Public has or can easily access the vessel.

Priority 3

Non-Emergency – Low Risk

General Description:

Vessel is floating, sunk, or broken up, and poses a low navigational, environmental, or public health and safety threat; vessel could become a Priority 1 or 2 threat with a change in circumstances.

Evaluation criteria:

- **Seaworthiness state:** Vessel is floating with a normal to minor reduction in freeboard, minor listing, or sunk.
- Mooring condition: Mooring lines in good condition or otherwise securely moored, anchored, or grounded.
- Hazard state: Located away from navigation channels in low traffic areas or in trafficked area but well-marked; no known hazardous substances.
- **Public accessibility state:** Public could access the vessel, but access is limited by its location and seaworthiness state.

Priority 4

Non-Emergency - No Immediate Risk

General Description:

Vessel is floating, does not pose an immediate navigational, environmental, or public health and safety threat; vessel could become a Priority 1, 2, or 3 threat with a change in circumstances.

Evaluation criteria:

- **Seaworthiness state:** Vessel is floating with normal freeboard.
- **Mooring condition:** Mooring lines or anchor in overall good condition and well-secured to a dock or anchorage.
- Hazard state: Located at a marina or anchored well away from navigation channels in low traffic areas; may contain hazardous substances, but overall vessel seaworthiness and mooring condition significantly reduces the threat of spill or release or is known to have been previously boarded and hazardous substances abated.
- **Public accessibility state:** Public could access the vessel, but access is unlikely due to location.

Additional considerations to establish list priority include:

- Vessel size
- Visibility or proximity to populated areas or disadvantaged communities
- Land ownership
- Agency jurisdiction
- History of complaints and responses
- Availability of other agency support
- Proximity to sensitive habitat, or habitat restoration required
- Multiple vessels in same vicinity
- Blocking public access
- Site conditions and weather/water conditions

Once a ground truthing survey is completed to verify the total number of abandoned commercial vessels that would qualify for removal under this Plan, staff will use the above matrix and additional considerations to rank each vessel for removal priority. As discussed later, staff estimates that removal and disposal of up to eight vessels per year can reasonably be accomplished when the new Program elements are fully funded and staffed. The priority list will be used to identify a group of vessels slated for removal during each fiscal year using previously determined estimates for each as the basis for funding requests, with a contingency amount added for emergency removals. The exception to this budgeting method would occur during the first year, where the budget is estimated based on prior experience and recent examples. The priority list will be updated as vessels are removed, vessel status changes, or additional vessels are added to the database.

Abandoned Commercial Vessel Database and User Interface

Commission staff has created a mapped database of commercial and recreational abandoned vessels using the Esri ArcGIS Online Platform. This Platform includes, among other capabilities, the ability to publish and edit data, deploy mapping applications, and make data available on mobile applications for editing in the field. Staff



Abandoned Railroad Ferry "Fresno", San Joaquin River

will utilize these capabilities to create an interactive Abandoned Commercial Vessel Database that can be used to identify and track abandoned vessels and provide a user interface for stakeholders.

The public will have read-only access to the Database and can provide abandoned vessel data to help supplement Program efforts. Collaborating with partner agencies that already work on abandoned vessel tracking and removal will also enhance the Commission's efforts, streamline staff efficiency, and make the overall Program more effective. Developing these capabilities will add additional costs beyond what the Commission currently incurs. Staff anticipates the primary costs will be for:

- Software licenses associated with users entering or accessing secure data.
- Staff time for creating and maintaining applications and data, as well as for coordinating with contributors and users.
- Purchase of additional mobile devices such as laptops or smart phones to facilitate data collection.



Sunk & Abandoned Dredge, San Joaquin River

Abandoned Commercial Vessel Database Potential Functionality

Authorized system users, such as partner agencies, will be able to publish data to the database, which will be immediately available to Commission staff and can in turn be

made available to the public on a limited basis, other authorized users, or a specified group. Authorized users may also take data offline, edit in the field, and sync changes back to the original content for access by the rest of the group.

Field collection and edits can be accomplished more easily by an available mobile data collection application requiring a user license. Depending on frequency of use and demand, improving field collection capabilities may require purchasing additional mobile devices for Commission staff.

The Platform also features configurable mapping applications that will provide the user with a variety of mapping templates. One template to be developed will be a mapping application showing the various agency jurisdictions covering the plan area. This map will allow Commission staff and users to identify which regulatory agency has jurisdiction over an abandoned vessel to facilitate courtesy noticing, agency coordination, and permitting.

CEQA Analysis

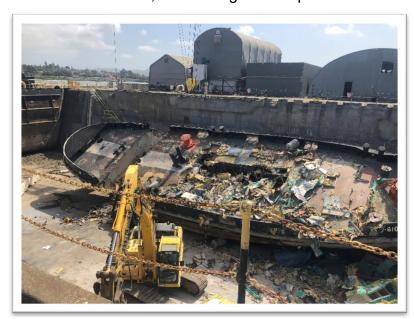
Based on known program elements, Commission staff believe the level of environmental analysis required for abandoned vessel removal activities will be an IS/MND. Appropriate Categorical Exemptions may also be applied in certain instances, such as when marine debris must be removed quickly in an emergency.

Contracting

Contracting requirements are different depending on whether a vessel qualifies for removal under the Harbors and Navigation Code (HNC) or the Public Resources Code (PRC). Under HNC sections 550 and 551, contracting must conform to the State Contracting Act, whereas under PRC section 6302, contracting is exempt from the Act.

Since the Commission lacks the capability or expertise to remove and destroy vessels regardless of which code sections apply, contracts for vessel removal with qualified dive and salvage companies will be required.

Contracting can be accomplished in several ways. One option for the Commission is to utilize a two-tiered contract system where a single contract is awarded to a qualified vendor for on-call purposes to



"Black Kite" Demolition at Dry Dock, Mare Island

remove vessels under emergency conditions when time is of the essence, with other contracts awarded on an as-needed basis for non-emergency removals to qualified vendors under a competitive low bid basis. All contracting activities would be handled by Commission staff.

Another option is to award a contract for a vendor to act as an agent for the Commission, where the vendor handles all duties related to contracting physical removal and disposal, including subcontractor coordination. Commission staff would still handle all other administrative tasks.

A third option to supplement the previous options would allow for reimbursements to local agencies for vessel removal on sovereign lands within their jurisdictions. Commission staff would identify the most appropriate mechanisms for contracting purposes once the Plan is funded and the pool of interested contractors and agency participants is developed and their capabilities are identified.



"Gretchen E" Demolition, Mare Island

Ownership Investigation and Notice

Vessel ownership investigation and notification are required Program steps to legally dispose of an abandoned vessel. Where vessel identification is present, such as a hull identification number, California registration number (CF number), or vessel name, identifying and locating a vessel owner becomes an important step in the administrative process, both to protect the owner's rights and to provide the state an opportunity to recover costs.

Ownership investigation will include several facets to ensure staff conducts a thorough search. If a CF registration number is present, indicating the vessel is registered with the California Department of Motor Vehicles (DMV), staff will contact the DMV to obtain the most recent ownership information. Regardless of DMV registration, commercial vessels may also be registered and documented with the U.S. Coast Guard, which is another source for researching ownership contact information. Other possible research avenues include consultations with local law enforcement agencies, marina operators, and vessel repair facilities that may have previously encountered a vessel, and online sources for possible current and historic references to a vessel.

Staff time required to investigate ownership information is difficult to estimate without having complete vessel survey data. However, for those vessels that have some form of identification, ownership investigation is expected to represent a relatively small percentage of the overall administrative process.

Partner Agency Coordination

Coordination with other partner agencies for vessel tracking, identification, and removal actions will be vital for the new Program element's success. Other agencies Commission staff will coordinate with include:

- U.S. Coast Guard
- DBW
- OSPR
- Delta Protection Commission
- San Francisco Bay Conservation and Development Commission
- California Department of Resources Recycling and Recovery (CalRecycle)
- Legislative Grantees
- Contra Costa County
- Sacramento County
- San Joaquin County
- Solano County
- Yolo County

Coordination efforts will include consultations for vessel history and ownership research information, data gathering and sharing, cost sharing, enforcement actions, courtesy removal notifications, and permit processing, among others.



Sunk Vessel "Gretchen E", Crockett, Carquinez Strait

<u>Program Administrative Process - Vessel Removal, Disposal,</u> and Cost Recovery

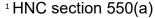
Program statutes that provide for abandoned vessel removal include HNC section 550, which defines a *vessel* and *marine debris*; HNC section 551, which describes the administrative process for marine debris removal; and PRC sections 6302.1, 6302.3 and 6302.4, which describe the administrative process for removing a vessel that does not fall under HNC section 550 but is located on sovereign land without permission or poses a hazard to the public or the environment. Commission staff will use both processes as circumstances dictate.

Marine Debris Removal – Harbors and Navigation Code Sections 550 & 551

Under HNC sections 550 and 551, a vessel is defined as "every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation by water." Marine debris is defined as "a vessel or part of a vessel, including a derelict, wreck, or part of a ship or other watercraft or dilapidated vessel, that is unseaworthy and not reasonably fit or capable of being made fit to be used as a means of transportation by water." The definition of vessel is broadly written to cover any type of commercial vessel that staff would encounter.

Any other law notwithstanding, marine debris may be removed from public waterways, or state tide or submerged lands by a public agency with either jurisdiction over the location, or authority to remove marine debris or solid waste.³ HNC Section 551 allows a public agency to destroy the debris. The Commission can remove and destroy marine debris from areas under its jurisdiction under the following conditions:

- 1. The object meets the definition of marine debris and has no value or a removal and disposal cost that exceeds its value.4
- 2. If there is no discernable identification insignia (CF number, hull ID number, etc.), a peace officer or authorized public employee will securely attach a 10-day notice as described in paragraph 4 below.5
- 3. If there is discernable identification insignia, a 10-day notice, as described in paragraph 4 below, will be posted on the marine debris and a separate 10-day notice will be sent to the owner of record's address by certified or first-class mail, if an owner can be identified.⁶ The 10-day period runs from either the date the notice was posted or mailed, whichever is later.7
- 4. The 10-day notice attached to marine debris will include at minimum the Commission's name, address, and telephone number⁸, the date of posting, and a statement indicating that the marine debris will be removed by the Commission if not claimed or removed within 10 days of the posting date. 9 The mailed notice will include the same information as that on the posted notice and will also include an additional statement indicating that the marine debris may be claimed



² HNC section 550(b)

⁹ HNC section 551(a)(1)(B) & (a)(1)(D)



Clustered Abandoned Vessels

³ HNC section 551(a)(1)

⁴ HNC section 551(a)(1)(A)

⁵ HNC section 551(a)(1)(B)

⁶ HNC section 551(a)(1)(C)

⁷ HNC section 551(a)(1)(D)

⁸ HNC section 551(a)(2)(A)

and recovered within 10 days of the notice mailing date upon payment to the Commission of its costs associated with the action.

- 5. Marine debris may be removed and disposed of immediately if it is a public nuisance or a danger to navigation, health, safety, or the environment, unless the debris is whole or not demolished during removal. If the marine debris is whole or not demolished during removal and an owner can be identified, then the debris will be maintained or stored for 10 days to allow notice to be sent. If the marine debris is not identifiable, it may be immediately destroyed or disposed.¹⁰
- 6. If the Commission so elects, costs incurred for marine debris removal and disposal may be recovered through appropriate legal or administrative action from an owner or any other identifiable person or entity that placed the marine debris or caused it to be in or on public lands including waterways, beaches, state tidelands, and submerged lands.¹¹

Trespassing Vessel Removal – Public Resources Code sections 6302.1, 6302.3, and 6302.4

Under the PRC sections, a *vessel* includes a vessel, boat, raft, or similar watercraft, and can physically be a hulk, derelict, wreck, or in pieces. Buoys, anchors, moorings, or other ground tackle used to secure a vessel are also included in this definition.¹² The Commission may act directly or through its staff or agents, and any other federal, state, or local agencies operating in concert with or under the Commission's direction.¹³

Like the HNC marine debris statutes, the PRC statutes allow for both emergency and non-emergency removal. A vessel may be removed immediately and without notice if it is unattended in an area under the Commission's jurisdiction and is moored, beached, or made fast to lands in a position that obstructs normal traffic movement and meets any of the following descriptions:

 Is in a condition that creates a hazard to navigation, other vessels, or the property of another.¹⁴

- Poses a significant threat to public health, safety, or welfare.
- Poses a significant threat to sensitive habitat, wildlife, or water quality.
- Constitutes a public nuisance.¹⁵

Sunk Crane Barge, 7-Mile Slough



¹⁰ HNC section 551(b)

¹¹ HNC section 551(c)

¹² PRC section 6302.1(f)(4)

¹³ PRC section 6302.1(f)(2)

¹⁴ PRC section 6302.1(a)(1)

¹⁵ PRC section 6302.1(a)(2)

After vessel removal, a 30-day notice will be mailed to the owner of record if known, and any known lienholders, and will include a statement indicating that if the vessel remains unclaimed after 30 days from the noticing date it will become abandoned property as provided in California Public Resources Code section 6302.1(a)(3) and the California State Lands Commission may dispose of it as provided in Public Resources Code section 6302.3.16

When a vessel does not warrant emergency removal regardless of its physical condition or occupation, the Commission may still remove any vessel placed without its permission in areas under its jurisdiction.¹⁷ Before removal, the Commission will:

- 1. Attach a 30-day notice to the vessel in a clearly visible place advising that the vessel must be removed within 30 days 18 and
- 2. Make a reasonable attempt to identify and locate the owner and any lienholders and mail a notice to each one with a date certain for removal that is at least 15 days from the noticing date. 19

Any vessel unclaimed at the end of the 30-day or 15-day notice periods, whichever is later, becomes abandoned property and the Commission may take title and dispose of it. The Commission has the option to remove the vessel immediately or allow it to remain in place until such time as it acts to effect disposal.²⁰

An owner or lienholder may regain vessel ownership upon payment to the Commission of removal and storage costs.²¹

At its discretion, the Commission may remove and dispose of an abandoned or derelict vessel from a navigable waterway not under its jurisdiction at the request of another regulatory authority with jurisdiction over the area where the unpermitted vessel is located.²²

As with the HNC marine debris statutes, the Commission may recover all costs, including administrative and CEQA compliance costs, incurred in removal actions under the PRC statutes through any appropriate state court action or administrative remedy.²³

Sunk & Abandoned Spud Barge, San Joaquin River



¹⁶ PRC sections 6302.1(a)(3) & (a)(4)

¹⁷ PRC section 6302.1(b)(1)

¹⁸ PRC section 6302.1(b)(1)(A)

¹⁹ PRC section 6302.1(b)(1)(B)

²⁰ PRC section 6302.1(b)(2)

²¹ PRC section 6302.1(c)

²² PRC section 6302.1(d)

²³ PRC section 6302.1(e)

Taking Title to Abandoned Property – Public Resources Code section 6302.3

The Commission may take title to an abandoned vessel subject to disposal pursuant to PRC section 6302.1 at a properly noticed public meeting for the sole purpose of abatement without satisfying any lien on the property. The property may be sold, destroyed, or otherwise disposed of in any manner the Commission determines is expedient or convenient.²⁴

Known owners and lienholders will be provided notice of the public meeting, and along with other interested parties, have the right to address the Commission before a vessel's disposition.²⁵

The public meeting may be informal pursuant to Government Code section 11445.20 unless designated as a formal hearing by the Commission.²⁶

Any action the Commission directs for abandoned property disposal, other than returning the property to the owner, will be held for 30 days after the Commission's determination to allow the owner to pursue a cause of action in court.²⁷

The Commission may recover costs associated with abandoned property disposal, including staff time and attorney's fees, by appropriate court action or by any available administrative remedy. If abandoned property is sold, the Commission's costs may be recovered from the proceeds with any additional funds deposited in the General Fund.²⁸

Delegated Authority - Public Resources Code Section 6302.4

At the Commission's request, any Commission staff or agent, a peace officer of any federal or state agency, or a peace officer of any other political subdivision of the state is granted the authority to board a vessel to carry out the purposes of Public Resources Code sections 6302.1 and 6302.3.²⁹



Abandoned Barge near Hog Island, San Joaquin River

²⁴ PRC section 6302.3(a)

²⁵ PRC section 6302.3(b)

²⁶ PRC section 6302.3(c)

²⁷ PRC section 6302.3(d)

²⁸ PRC section 6302.3(e)

²⁹ PRC section 6302.4(a)

Other Considerations

The above information describes the functional aspects of abandoned vessel removal, but practical aspects will also be considered when determining appropriate actions, such as whether a vessel can be classified as marine debris, requires emergency removal, will be left in place or removed and stored, whether staff can identify an owner, and if so, whether the Commission pursues cost recovery.

Based on physical observations, staff expects the majority of abandoned commercial vessels will meet the factual requirements to be classified as *marine debris* because the vessel is unseaworthy and not reasonably fit or capable of being made fit for use. For example, when a vessel is broken apart, it should be self-evident that the vessel is unseaworthy and incapable of being made fit for use and that its value as a vessel is less than the cost of removal and disposal. In instances where a vessel's physical condition is less deteriorated, qualified staff or contractors may be asked to survey the vessel condition and provide a determination.

Staff observations indicate that most known abandoned commercial vessels have been in place for some time and will not qualify for emergency removal. However, that status could change if a vessel's position or condition changes suddenly (e.g., an oil sheen appears, or a vessel breaks loose and becomes a navigational hazard).

Because costs of interim storage and equipment mobilization are significant, staff expects that most abandoned vessels will be left in place until the vessel's ultimate disposition is arranged.

Commission staff will assess on a case-by-case basis whether to recommend cost recovery, with a key question being whether a responsible party can be identified. As discussed earlier, staff will make every reasonable attempt to discern ownership.



Sunk Landing Craft, Crockett, Carquinez Strait

Cost Analysis and Budgeting

The following analysis discusses estimates for new Program element staff time and equipment operating expenses and purchases. Because appropriate job classifications and related reimbursement rates for various new Program functions have not been determined, staff cost estimates are not included in this analysis. Costs shown in the tables represent hard costs only.

Ground Truthing Survey

Due to the size of the Plan area coverage and limitations on where the Commission's patrol vessel can be launched in the Delta, the initial ground-truthing survey is expected to require three staff to perform field work two days per week over an approximately seven-month period. Staff needed for field work are a boat captain, a crew member, and an observation & data entry person. Staff time will also be required to perform office work to track site visits and compile data.

The Commission's tow vehicle and patrol vessel will be used for the survey, which will add increased fuel and maintenance costs (operating costs) over what is already incurred. The Commission's aerial drone and underwater Remote Operated Vehicle capabilities may also be used during the survey if such use can be shown to be cost effective. Use of each would be considered on a case-by-case basis and are not included in this analysis.

Survey-related start-up staff time requirements and vehicle/vessel operating cost estimates are summarized below in Table A.

T 				
Ground	Program Year			
Truthing Survey	Year 1 Start-up			
	Times Total			
Activity	Hours	Performed	Hours	
Field Work	48	30	1440	
Office Work	8	30	240	
Operating Costs	\$8,000			
Total Hours			1680	

Table A - Ground Truthing Survey Staff Time & Costs

Abandoned Commercial Vessel Database Creation & Maintenance

Authorized users requiring access to underlying data such as vessel coordinates will require an online account. Partner agencies with existing accounts can be provided access to the Commission's ArcGIS Platform but those without existing accounts will need to acquire them.

Start-Up Staff Time

Initial setup for applications, groups, and appropriate permissions is estimated to require approximately 160 hours of staff time, not including additional time needed for appropriate outreach and Platform buy-in. Staff time for these activities is difficult to estimate because it will be contingent upon the number of participating stakeholders, so is not included in this estimate.

Ongoing Maintenance

Ongoing database maintenance is estimated to require approximately 30 hours of staff time per month or 360 hours per year allocated to ongoing training, quality control, troubleshooting, and collaborating with new providers and data users.

Costs

For partner agencies and Commission staff updating data in the field, additional software licenses can currently be purchased for \$350/year. An editor license for partner agencies to review and edit incoming data is available for \$200/year, with simple viewer access available at \$100/year.

Purchasing additional mobile devices if required is expected to cost approximately \$700 per unit, with ongoing service packages costing approximately \$600 per unit per year. Plan implementation will require purchasing an additional mobile device and service package for staff use.

Database staff time requirements and equipment/licensing cost estimates are summarized below in Table B.

Database Creation	Program Year					
& Maintenance	Year 1 Start-up		Ye	ear 2 & ongoi	ng	
		Times	Total		Times	Total
Activity	Hours	Performed	Hours	Hours	Performed	Hours
Initial Setup	160	1	160			
Recurring				30	12	360
Costs	\$700			\$600		
Total Hours			160			360

Table B - Database Creation & Maintenance Staff Time & Costs

Administrative & Program Staff Requirements and Costs

CEQA Analysis

Staff estimates that the cost for a consultant to prepare an IS/MND will be \$200,000, plus approximately 250 hours of staff time to coordinate preparation and review.

Administrative Process

Administrative tasks may require additional staff time allocations for existing human resources, contracting, and fiscal services functions. However, administrative staff time

estimates are not included here due to the significant variations in contracting processes that can require as little as eight to over 80 hours of staff time or more to complete a single contract.

Program Process

Staff responsibilities associated with the Program's new abandoned commercial vessel process include vessel prioritization, owner research, engaging the contracting process, contractor coordination, responding to public inquiries, partner agency coordination, preparing Commission meeting agenda items, and cost recovery actions. Because cost recovery will not be possible on every vessel and staff time could vary considerably, estimates for cost recovery time are not included here. Actual time and costs will vary depending on the vessel and available information, but average staff time and costs required to complete the process for one vessel are summarized below in Table C.

Administrative/	Program Year					
Program Tasks	Υ	'ear 1 Start-u _l	p	Υe	ear 2 & ongoi	ng
Activity	Hours	Times Performed	Total Hours	Hours	Times Performed	Total Hours
CEQA Analysis	250	1	250			
CEQA Recurring				2	8	16
Program Tasks	TBD	TBD	TBD	TBD	TBD	TBD
Site Visits	24	22	528	24	22	528
Admin Tasks	72	8	576	72	8	576
Cost Recovery	TBD	TBD	TBD	TBD	TBD	TBD
CEQA Costs	\$200,000					
Total Hours			1354			1120

Table C - Administrative & Program Tasks Staff Time & Costs

Vessel Removal Costs

Costs per vessel removal will vary widely depending on a vessel's size, location, and condition, and very few of the identified abandoned commercial vessels are similar, so providing an accurate estimate without having more thorough data available is very difficult, but is necessary to provide a cost basis for the first-year removal budget.

First Year's Removal Budgeting

Available research on abandoned commercial vessel removal costs identify some estimates, and staff is aware of actual costs for several abandoned commercial vessels removed in the recent past, but there appears to be no consensus on what could be considered an average amount per vessel. For purposes of estimating the Program's first year abandoned commercial vessel removal budget, based on prior experience and using the removal and disposal costs for the tugs "Blackhawk" and "Black Kite" as examples, staff estimates the average abandoned commercial vessel removal cost will

be approximately \$200,000, with up to eight vessels scheduled for removal, assuming full program staffing is in place and funding is available. The budget should also account for a contingency amount if an emergency removal is required. Staff estimates a 25 percent contingency amount will be sufficient for emergency removals under this Program.

Individual vessels with significantly higher removal costs will likely not be handled during the first year. The first year's removal efforts will be focused on establishing the process and will therefore concentrate on removing vessels that are more representative of the majority and fall within the available budget.

Subsequent Years' Removal Budgeting

Subsequent years' removal budgets will vary over time and may be considerably higher than the first year to account for the higher handling costs associated with removing larger and more difficult to process vessels. Staff anticipates that future removal budgets will be based on a rolling schedule of cost estimates provided by contractors for groups of vessels prioritized for removal. Vessels scheduled for removal during any given fiscal year will be identified the prior year, with cost estimates prepared. Those estimates will then be used as the basis for the following year's budget, allowing for a 25 percent contingency amount to account for emergency removals. Estimated annual vessel removal costs are summarized below in Table D.

Vessel Removal	Program Year		
Budget	Year 1 Start-up	Year 2 & ongoing	
Costs	\$1,600,000	TBD, based on prepared estimates	
25% Contingency	\$400,000	TBD	
Total Costs	\$2,000,000	TBD	

Table D – Annual Vessel Removal Budget

Total Estimated New Program Element Staff Time and Costs

A summary of all estimated new Program element staff time and anticipated costs is shown below in Table E.

Staff Time & Cost	Program Year		
Totals	Year 1 Start-up	Year 2 & ongoing	
Staff Time	3194	1480	
Costs	\$2,208,700	TBD	

Table E - Total Estimated Staff Time & Costs

Funding Sources

PRC section 6302.2 does not provide a funding source. Plan funding could be obtained through legislative appropriations or through the State's normal budget process. Appropriations could come from the State's general fund, the establishment of a special fund, or from existing special funds. Whatever the source, ongoing funding will be vital for the Plan's success.

Future Program Recommendations

Plan implementation should prove effective at reducing the existing numbers of abandoned commercial vessels in the Sacramento-San Joaquin Delta area, but staff believes more can and should be done beyond the current plan scope. The following discussion provides recommendations to be considered for future action.

Many abandoned commercial vessels are located within the five-county plan area. However, abandoned commercial vessels exist statewide. Assuming the plan is implemented and is successful, staff recommends that the Legislature expand the program to apply statewide.

Incentivizing prevention of additional commercial vessels from being abandoned on the state's waterways in the future should be considered. Endof life or marginal former commercial vessels are often purchased for token amounts by individuals who lack financial resources to adequately rehabilitate or



"Blackhawk", Purchased for \$1 at Auction, 2017

dispose of the vessels once acquired. Staff recommends legislative mechanisms similar to those currently used by the state of Washington be explored for a multi-faceted preventive approach, including:

Requiring buyers to provide proof of insurance, and vessel owners to verify that a
buyer has appropriate insurance coverage at the time of transfer. Failure to verify
coverage would subject a seller to ongoing liability if the vessel turns up as
abandoned in the future.

• Requiring a vessel be inspected by a qualified marine surveyor to verify its seaworthiness before ownership transfer occurs.

Because of the Commission's responsibilities under its Marine Invasive Species Program, staff recommends that a marginal or end-of-life commercial vessel be inspected for the presence of invasive species and provide proof of inspection before it is allowed to enter California waters if entering the state from foreign waters.

Staff recommends working with all stakeholders and across local, state and federal governments as an important step to effecting change.



Grounded & Abandoned Fishing Vessel near Pittsburg

Contacts

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