

San Francisco Bay Conservation and Development Commission

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August 30, 2019

TO: Enforcement Committee

FROM: Lawrence J. Goldzband, Executive Director (415/352-3653; larry.goldzband@bcdc.ca.gov)
Adrienne Klein, Chief of Enforcement (415/352-3609; adrienne.klein@bcdc.ca.gov)

**SUBJECT: Policy Briefing and Update on the Management of Vessels in Richardson’s Bay
(BCDC Enforcement Case Nos. ER2010.038, RBRA and ER2018.018, City of Sausalito)
(For Enforcement Committee consideration on September 12, 2019)**

Policy Briefing and Update Summary

On February 21, 2019, the Committee received four briefings on the local efforts to improve the management of vessels moored in Richardson’s Bay. In addition to an update on the BCDC policies that apply to vessels anchored in Richardson’s Bay, Committee members received briefings from Beth Pollard, Executive Director of the Richardson’s Bay Regional Agency (RBRA), Councilmember Joan Cox from the City of Sausalito, and Rebecca Schwarz-Lesberg, the San Francisco Bay Program Director from Audubon California. Ms. Schwarz-Lesberg spoke about the results of a white paper entitled, *Eelgrass, Herring, and Waterbirds in San Francisco Bay: Threats and Opportunities*, which found that the anchor out vessels moored in Richardson’s Bay have caused adverse impacts to between 50 and 84 acres of subtidal eelgrass habitat and that these impacts are ongoing. Ms. Pollard and Ms. Cox spoke about their agencies' efforts to address the vessels within their respective waters. Following the presentations, the Enforcement Committee expressed support for the ongoing enforcement efforts by Sausalito and the RBRA. The Enforcement Committee did not take a formal position on the local actions and requested that staff schedule future briefings on the matter.

On September 12, 2019, a follow-up briefing is scheduled, in which BCDC staff and representatives of the RBRA and City of Sausalito will update the Committee on anchorage management efforts in Richardson’s Bay. Jim Wickham, RBRA Chair, Beth Pollard, RBRA Executive Director, Curtis Havel, RBRA Harbormaster, and Keith Merkel, Merkel and Associates, will present the following:

- (1) A review of the number of vessels on Marin County waters, based on the results of the vessel census conducted on June 16, 2019. (A copy of the vessel survey summary presented at the RBRA’s July meeting is attached.)
- (2) A summary of the RBRA’s plans to manage vessel the influx through implementation of Ordinance No. 19-1 and Resolution No. 03-19, both adopted by the RBRA on July 11, 2019. These ordinances provide that vessels moored or anchored in Richardson’s Bay must be seaworthy, currently-registered, and contain an operable marine holding tank.



Further, for vessels arriving after June 16, 2019, Resolution 03-19 establishes that if the vessel plans to stay for more than 72-hours, the person anchoring the vessel must obtain a permit.

(3) An update on efforts to communicate to local agencies the availability of social services to encourage the relocation of anchorage residents from SF Bay to shoreside housing.

(4) A summary of the results of a mooring and feasibility planning study to assess the location, quantity and impacts of placing moorings in Richardson's Bay.

Attached to this staff report are: (1) the RBRA Vessel Survey Summary dated June 16, 2019; (2) the RBRA Staff Report for Proposed Ordinance 19-1, which would update definitions regarding conditions for vessels mooring and anchoring in Richardson's Bay and make other amendments; (3) the RBRA Staff Report for Resolution No. 03-19 to incorporate into the RBRA enforcement priorities the enforcement of permitted time limits for vessels entering Richardson's Bay; and (4) the scope of work for the Mooring Feasibility and Planning Study proposal considered by the RBRA on January 10, 2019.

Adam Politzer, Sausalito City Manager, and Sausalito Chief of Police John Rohrbacher will also present the following information at the September 12th Enforcement Committee meeting:

(1) A review of the number of vessels on city of Sausalito waters; and

(2) A briefing on the establishment of a partnership with four local agencies (the Ritter Center, County Health and Human Services, the Chamber of Commerce and the Sausalito Marinas) to establish the Safe Harbor program, which has been created to bring anchor outs located on Sausalito's waters into marinas, and provide them with "wrap around" support services as they work to successfully transition the occupants from the open waters into permanent housing.

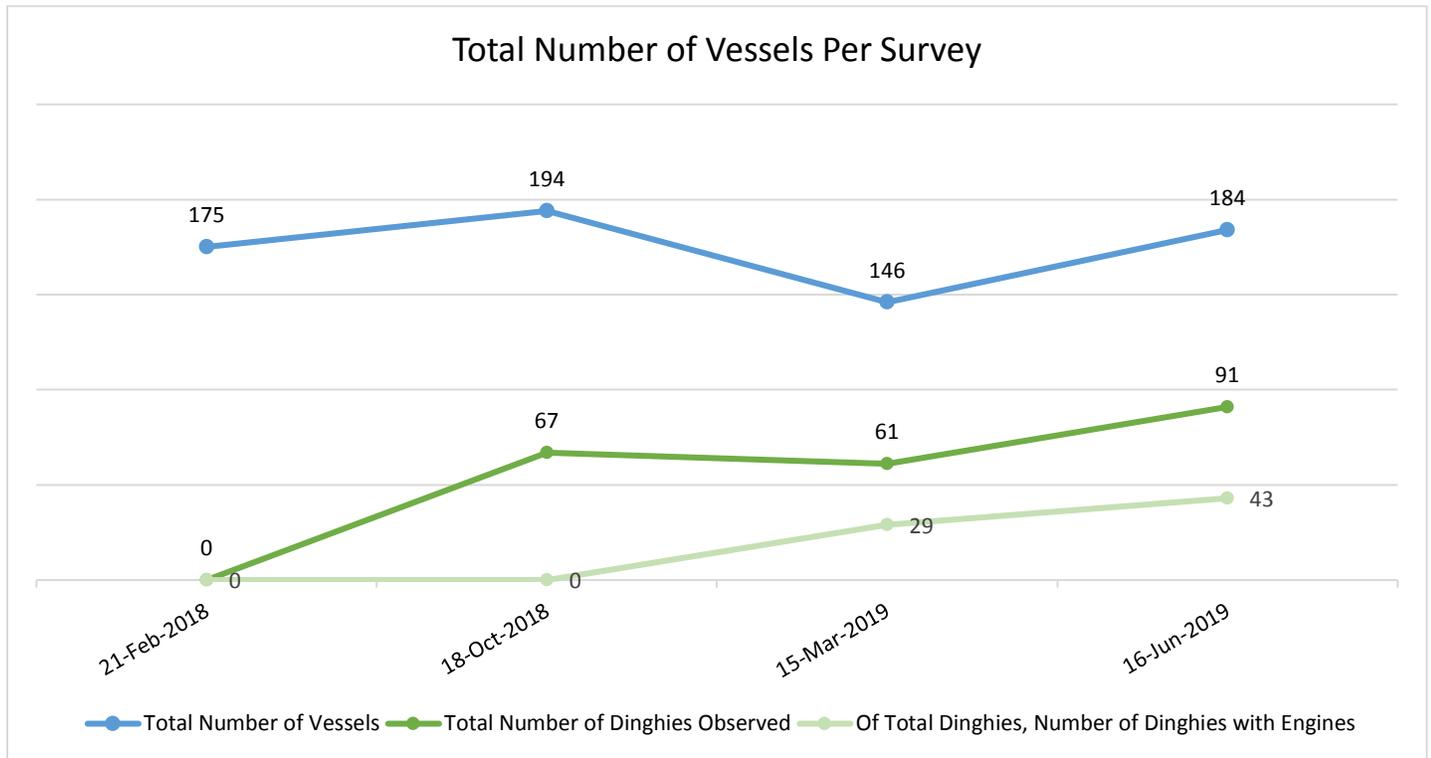
Following the presentations, staff will present questions for discussion and consideration by the Enforcement Committee. No action is being sought at this meeting, although direction to staff, the RBRA, and the City is welcome.

Richardson Bay Regional Agency Vessel Survey Summary June 16, 2019

Summary

One hundred and eighty (180) vessels were observed in the county jurisdiction of Richardson’s Bay during a 1-day survey on June 16, 2019. This count does not include the four (4) floating homes at the north end, which are always included in the RBRA vessel survey. Also, this total does not include dinghies. Any vessel less than 12 feet in length was counted as a dinghy. Ninety-one (91) dinghies were observed. Forty-three (43) of these dinghies were with engine. Information on dinghy registration was not captured. The number of dinghies per vessel ranged from zero (0) to three (3). Dinghies with engines ranged from zero (0) to five (5) per vessel. Kayaks and canoes were not included in this survey. The total number of vessels and dinghies was two-hundred and seventy-five (275).

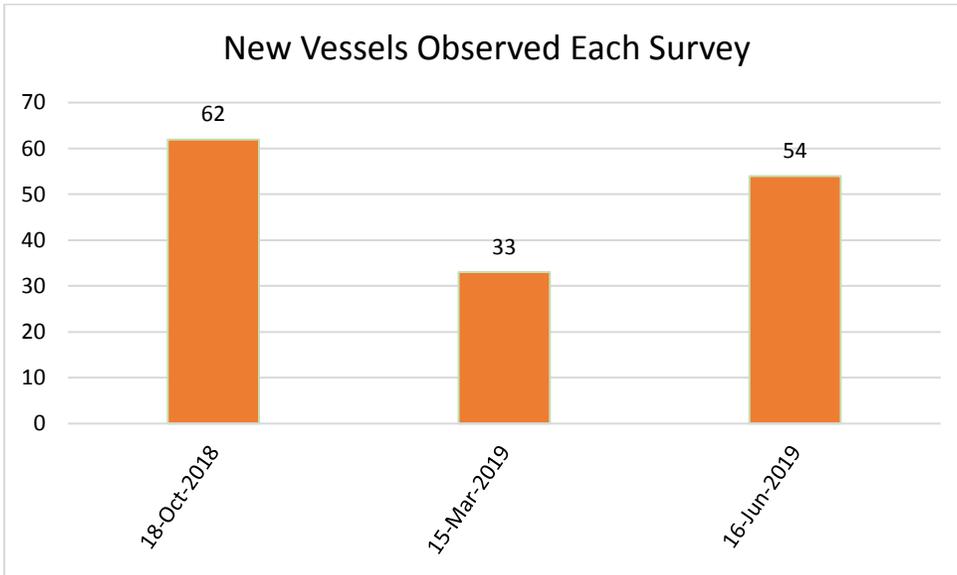
Since the March 15, 2019 survey there is an additional 38 vessels (dinghies not included) in County waters of Richardson Bay. This is a 26.03% increase in three months.



Four surveys have been conducted since February 2018. Survey dates are shown in the table below. As more vessels are entered into the Richardson’s Bay vessel database, on-the-water data collection has become more efficient. Earlier surveys required two days, and more recent surveys have been completed in one day.

Survey Dates
February 20 & 21, 2018
October 17 & 18, 2018
March 15, 2019
June 16, 2019

The level of accumulation and attrition of vessels varies from survey to survey. The June 2019 survey had fifty-four (54) new vessels that were not present during the March 2019 survey.



Vessel registration years ranged from 1999 to 2021, with sixty-five (65) vessels having no visible registration year. However, twenty-one (21) vessels with no visible registration year are presumed to be documented with the U.S. Coast Guard. Of these, five (5) vessels have current registration.

Ninety-seven (97) vessels have expired or no visible registration. Eighty-three (83) vessels have unverified current registration. The map on the following page shows how valid and expired registrations are dispersed throughout County waters.

Vessel Registration	Number of Vessels	Number of Vessels with Unverified Current Registration
Registered with State	127	78
Registered with U.S. Coast Guard	21	5
No Visible Registration	32	0
TOTAL	180	83 (46%)

Two additional maps have been included showing vessel use patterns within the county jurisdiction of Richardson’s Bay. Vessel use shows whether a vessel is occupied, unoccupied, or unknown. There are fifty-nine (59) vessels that are currently unoccupied. One-hundred and fifteen (115) vessels are occupied, and six (6) vessels are unknown whether they are occupied or unoccupied.

Finally, one-hundred and three (103) vessels have been determined unseaworthy, using the definition Richardson Bay Regional Agency is in the process of adopting. Without boarding the vessel, making this determination can be challenging in some instances; however, we evaluated whether a sail vessel had a boom, a sail, the amount of materials on deck that may limit sailing activity, etc. For powerboats, we looked for signs of delaminating, the amount of materials on deck, and levels of marine growth. Seventy-seven (77) vessels were deemed seaworthy.

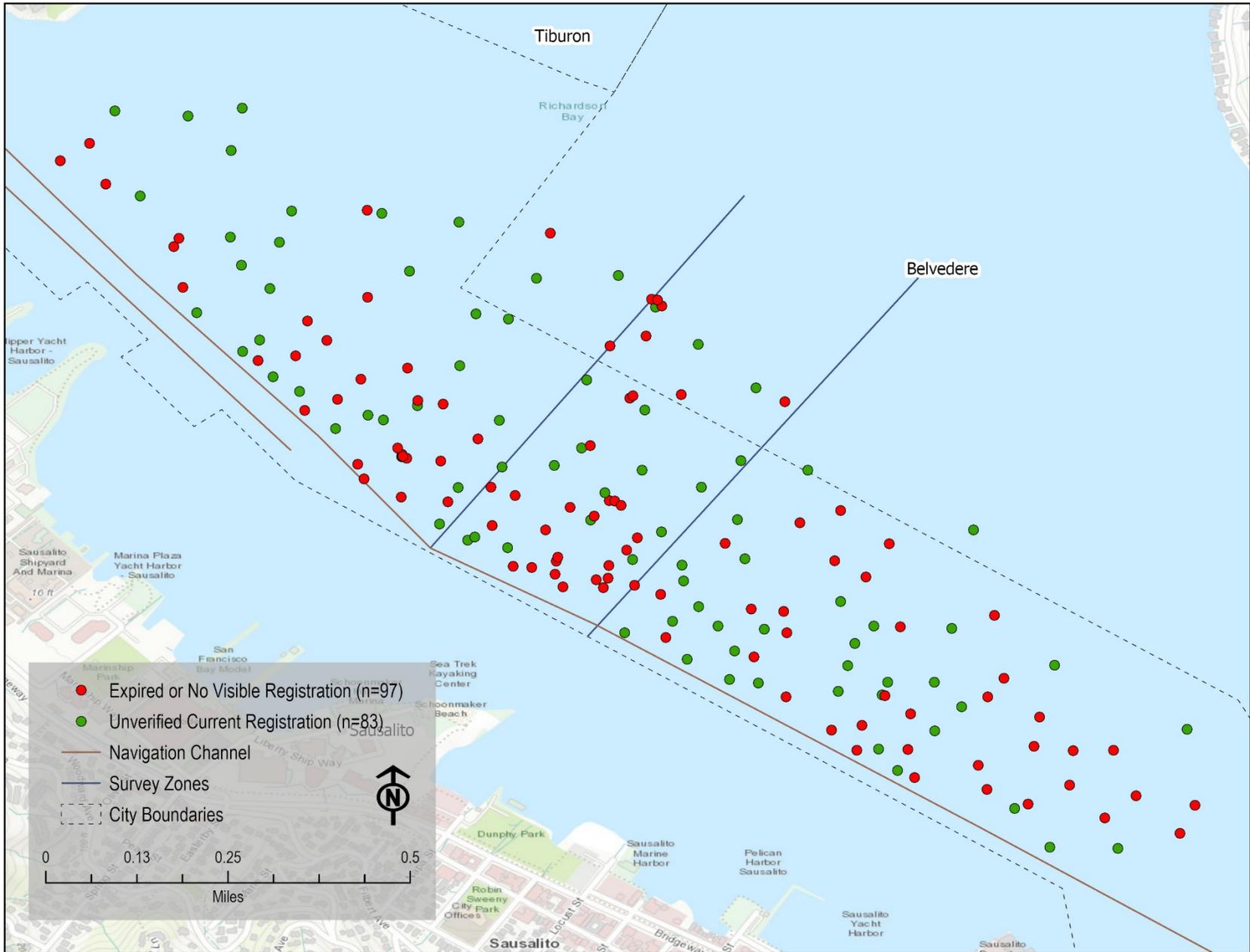
Neighboring Jurisdictions

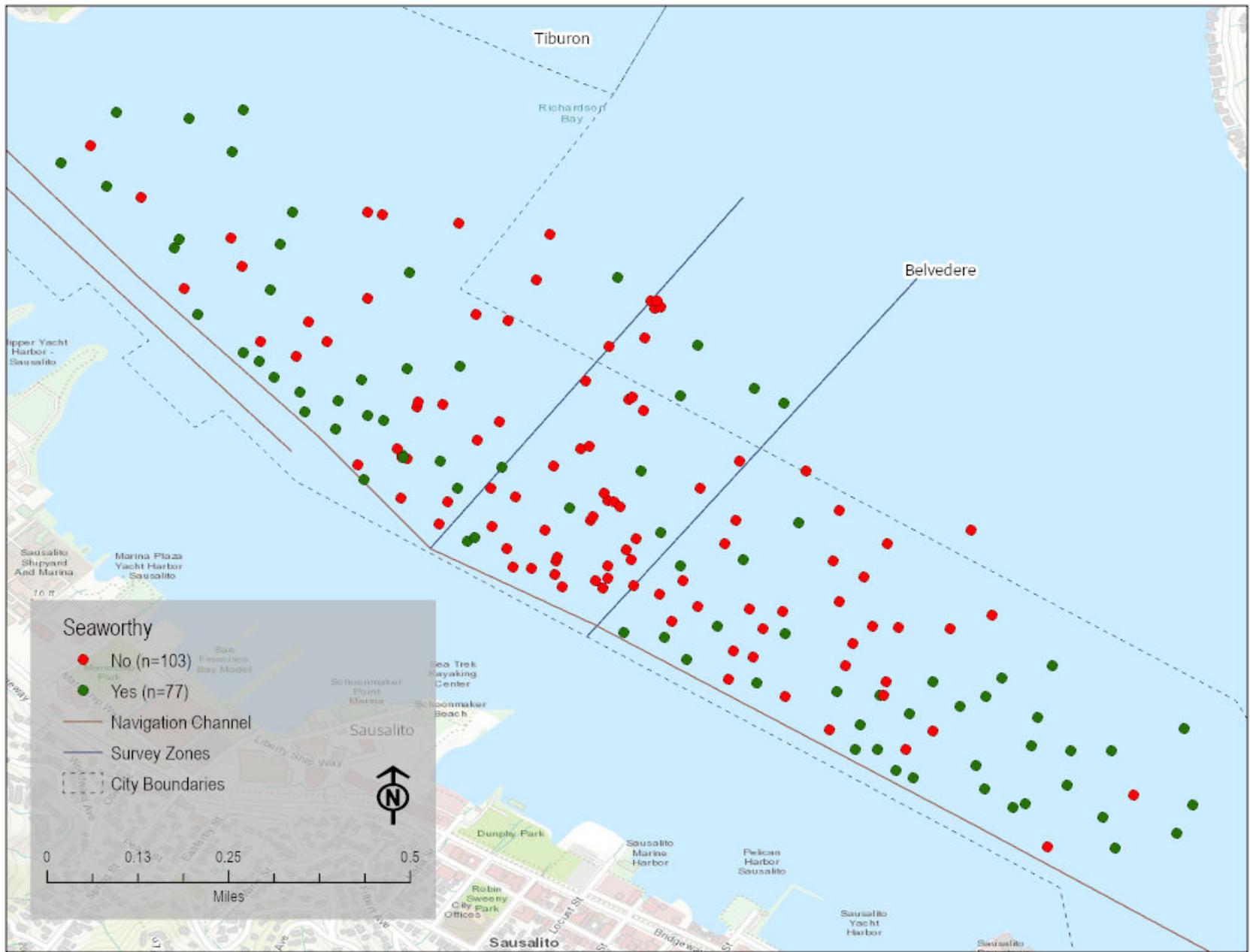
Forty-seven (47) vessels from the Richardson's Bay database have also been captured in the Sausalito vessel survey database. Of these forty-seven (47), twenty-nine (29) have been observed on more than one Sausalito vessel survey. Twenty (20) vessels observed in County waters during the June 2019 survey have been previously included in more than one of Sausalito's monthly surveys.

Fifteen (15) vessels currently reside within the City of Belvedere waters. These vessels range in size from approximately 23 feet in length to 60 feet.

Notes

If a vessel was tethered to another vessel, and was greater than 12 feet in length, a new record was created for that vessel. However, if a vessel tethered to another vessel was less than 12 feet in length, it was tallied in the number of dinghies.





RICHARDSON'S BAY REGIONAL AGENCY

STAFF REPORT

For the meeting of: July 11, 2019

To: RBRA Board of Directors
From: Beth Pollard, Executive Director
Subject: Hearing: Proposed Ordinance 19-1 updating definitions, providing for vessel conditions required for mooring and anchoring in Richardson's Bay, and amending the location of appeal hearings.

STAFF RECOMMENDATION:

Conduct the merit hearing on the proposed Ordinance 19-1 amending Richardson's Bay Regional Agency Code Section 1.04.020, Definitions; amending Title 3, Vessels, to add Section 3.04.050, Vessel Conditions and Requirements; and amending Title 6, Section 6.04.050, Nuisance Code; and adopt the ordinance.

BACKGROUND:

At its meeting of June 14, 2018, the Board conducted a work session to seek public comment on, among other things, conditions that should be required for vessels that are on Richardson's Bay. Based on the public comments, at its meeting of July 25, 2018, the Board of Directors directed staff to draft an ordinance that establishes requirements for vessels on the bay. The particular priorities are that vessels be seaworthy and operable, that they contain adequate sanitation facilities, that decks be free of loose materials, and that the requirements for current and valid registration be locally stated.

At its meetings of October 11, 2018 and February 14, 2019, the Board reviewed and provided direction on draft ordinance language. The ordinance was introduced for first reading on March 14, 2019, and subsequently re-introduced on June 13, 2019 to incorporate changes advised by legal counsel, and to expand the prohibition on discharge of "dog" waste to include "pet" waste.

DISCUSSION:

Definitions

The ordinance contains definitions for seaworthy, operable, and adequate sanitation facilities that are based on public comments as well as review of other agencies' provisions. Also included in the ordinance are revisions to some definitions that are now in the code, for clarification purposes, including:

- Reflecting the departure of the City of Sausalito from the Agency
- Adding a definition of “discharge” and “sewage”
- Amending the definition of “houseboat” to add the presence of a “pontoon, flat-bottomed hull or similar configuration”
- Updating the definition of “vessel”

Vessel Condition and Requirements

Title 3, Vessels, of RBRA’s code is amended to require that vessels be seaworthy, operable, contain an adequate marine sanitation device, and have current and valid state/federal registration. It authorizes the Harbor Master to make some exceptions for vessels using the anchorage as a temporary safe harbor with good faith efforts underway to bring the vessel into compliance. Vessels that fail to comply would be subject to RBRA’s Nuisance Abatement procedures or, where applicable, state Harbors & Navigation code abatement provisions.

Nuisance Abatement Hearing Location

RBRA’s Nuisance Code, Title 6, provides for nuisance abatement procedures for non-complying vessels. The code currently states the hearing location as the Sausalito Council Chambers. The ordinance amendment would allow the hearing to take place in another location in Marin County; one of the member cities or County of Marin that would be named on the abatement notice to the vessel owner.

ANALYSIS:

Vessel Condition

Unseaworthiness is already considered a cause for declaring a vessel to be marine debris under Section 550 – 551 of the California Harbors & Navigation Code. The purpose of including a seaworthy definition in RBRA’s code is to more clearly define expectations for vessel owners on Richardson’s Bay. Additionally, the wording of RBRA’s definition is drawn in part from the guidelines established by the Richardson’s Bay Special Anchorage Association (SAA) for its certification program. The seaworthy definition contains the requirement that decks be free of loose debris, which was one of the priorities that emerged from public comment.

In addition to unseaworthy, vessels that “are not reasonably fit or capable of being made fit to be used as a means of transportation by water” are considered marine debris under Section 550. RBRA’s proposed ordinance would also more clearly define what is required to be considered operable on Richardson’s Bay, and to fully clarify that vessels must be in operable condition. A requirement for vessels to be in ongoing operable condition, instead of being capable of being operable, is expected to be of concern for vessel owners.

The United States Coast Guard requires that vessels have adequate marine sanitation devices. In addition, vessels are required to be registered with the California Department of Motor Vehicles or the Coast Guard. The purpose of

including these requirements in RBRA's code is to reinforce these as critical local standards.

Temporary Safe Harbor

There are situations where vessel owners seek temporary safe harbor in Richardson's Bay because their vessels are in distress and require repairs; in these situations the vessels may not be seaworthy or operable. The proposed ordinance allows temporary provisions for these circumstances when the Harbor Master determines that good faith efforts are being made to rectify the inadequate conditions. Comments have been made by member(s) of the public to provide some guidance or limitations for this provision.

Effective Date

An ordinance would normally become effective 30 days after its adoption. The Board has the option to defer the effective date of portions or all of the ordinance if it wishes to time it with Board actions as a result of the pending marine ecology mooring study, or other considerations. Considerations could include the extent of non-compliance, which is estimated to be a significant majority of the vessels, so as to give owners a fair amount of time to make decisions and undertake actions about their vessel conditions. Such deferral could take the form of Board policy direction in adoption of the ordinance, such as for noticing and/or warnings for a certain period of time for some or all of the ordinance provisions.

COMPLIANCE/FINANCIAL IMPACT:

With increased anchorage regulation comes increased enforcement expectations, and the cost of related services and potential legal costs to RBRA, as well as costs to owners to bring their vessels into compliance. There are currently about 140 vessels on Richardson's Bay, with a rough estimate of a quarter meeting the ordinance requirements. Enforcing the ordinance will take Harbor Administrator and Marin County Sheriff staff time; staff anticipates more resources than are presently allocated will be required to accomplish such enforcement. RBRA has obtained State Boating & Waterways grant funds to abate vessels, for which it will continue to apply. There currently is no notification by the state that this funding stream will expire in the foreseeable future. In addition, the RBRA has a pending grant application with the National Oceanic and Atmospheric Administration (NOAA) for of marine debris removal that could be used for the abatement of some vessels.

The SAA has undertaken advising and training vessel owners and operators on bringing their vessels up to its seaworthy standards, as shown on its anchoredout.org website, and establishing a burgee system to identify those in compliance with their standards. However, many, if not most, vessel owners have financial challenges that compromise their capacity to make the repairs and improvements necessary to meet the ordinance requirements. As a 501(c)3 non-profit organization, the SAA is eligible to receive grants and other donations.

Members of SAA are seeking financial contributions and other support that can further their efforts to assist in improving vessel conditions; this would be particularly applicable to those vessels that require only a modest amount of work but for which the owner lacks the resources to undertake.

NEXT STEPS:

If at a later date the Board decides to establish requirements for mooring or anchoring on the bay, such as location or technique or other conditions, an additional ordinance can be introduced and adopted at that time.

Upon adoption, staff would undertake a notification program to inform vessel owners of the ordinance requirements.

Bringing about compliance will be a combination of non-profit efforts to raise funds, private efforts to improve vessel conditions, and public agency enforcement actions, including abatement, on vessels that fail to meet the standards. Additional resources are anticipated to be needed to fully accomplish the scope of enforcement anticipated to achieve full compliance; the magnitude needed will depend on the scope of voluntary compliance with the ordinance.

Attach:

Draft Ordinance 19-1 (new language in **bold**)

DRAFT ORDINANCE NO. 19-1

AN ORDINANCE OF THE RICHARDSON'S BAY REGIONAL AGENCY
UPDATING DEFINITIONS, PROVIDING FOR VESSEL CONDITIONS REQUIRED FOR
MOORING AND ANCHORING IN RICHARDSON'S BAY, AND AMENDING THE
LOCATION OF APPEAL HEARINGS

WHEREAS, it is a goal of the Richardson's Bay Regional Agency ("Agency") to have a safe, healthy, and well-managed Richardson's Bay ("Bay"); and

WHEREAS, the Agency conducted a public process to help identify current conditions that inhibit the Agency in achieving its goal, and to assist the Agency in defining what vessel conditions are necessary for the Bay to be safe and healthy; and

WHEREAS, as a result of the public process, the Agency has determined that vessels that are unseaworthy or inoperable, or lack an adequate sanitation device pose health and safety risks and hazards to other vessels and persons on the Bay, to the ecology of the Bay, to docks and other property on the shore, and to public safety and other personnel; and

WHEREAS, the Agency has authority to establish rules and regulations for anchoring and mooring in the Bay; and

WHEREAS, the Agency wishes to amend its ordinances to update its definitions, to establish vessel conditions required for mooring and anchoring in the Bay for the health and safety of persons, property, and the environment, and to amend the location of its appeal hearings to reflect the departure of the City of Sausalito from the Agency,

NOW, THEREFORE, BE IT HEREBY ORDAINED that the Board of Directors of the Richardson's Bay Regional Agency does hereby ordain as follows:

SECTION I. Section 1.04.020, Definitions, is hereby amended to add or revise the following definitions:

Adequate vessel sanitation facility: An operable marine sanitation device or portable toilet approved by the United States Coast Guard as suitable to prevent direct discharge of human waste into Richardson's Bay.

Agency: Refers to the Richardson Bay Regional Agency established by Joint Powers Agreement in July 1985, and amended July 2018 to reflect the withdrawal of the City of Sausalito from the Agency.

Discharge: To spill, leak, pump, pour, emit, empty, dump, deposit, or throw.

Houseboat: A structure in the water, ~~floating or not floating~~, **that has a pontoon, flat-bottomed hull or similar configuration, and is generally not used for recreational or active navigational use.**

Mooring: A means of fixing a floating vessel to the bottom in one location, temporarily or permanently, by use of cable lines, chains, anchors, weights, or other equipment, remaining attached to the bottom and not carried aboard such vessel as regular equipment when underway, **and through its resistance to drag maintains a vessel within a given radius.**

Operable: A vessel's ability to maneuver safely under its own power, using only its usual and customary equipment, from any place within the jurisdiction of the Agency to an inspection site authorized by the Harbor Master, and back to its point of origin.

Person: Any person, firm, association, organization, partnership, business trust, corporation or company, **singular and plural.**

Seaworthy: Operational thru hulls, hoses and sea cocks; bilge pumps are operational and bilges are free of oil; no loose debris or materials on deck; hull, keel, decking, cabin and mast are structurally sound and vessel is free of excessive marine growth, excessive delamination or excessive dry rot that compromises the vessel's integrity to stay intact and afloat without extraordinary measures; capable of operation to avoid striking vessels, persons, and or property should it break free from its anchor.

Sewage: Human body wastes and the wastes from toilets and other receptacles intended to receive or retain body waste.

Vessel: ~~A structure designated to be navigable upon water.~~ Shall have the same meaning as set forth in California Harbors and Navigation Code Section 550(a) or successor statute as it currently exists or may hereinafter be amended. As of the date of the adoption of this ordinance, vessel includes every description of watercraft or other artificial contrivance used or capable of being used as a means of transportation on water. ~~that is designed and principally intended for use as a means of transportation by water.~~

SECTION II. Title 3, Vessels, is hereby amended to add the following:

3.04.050 Vessel Condition and Requirements

- a. Vessels anchored or moored in Richardson's Bay shall be seaworthy and *operable*. Exceptions may be granted by the Harbor Master to

Agency-only regulations at his/her discretion following his/her determination that the owner of the vessel is using the bay as a temporary safe harbor and making a good faith effort to bring the vessel into compliance with Agency regulations. The Harbor Master has no authority to grant exceptions to any state or federal requirements.

- b. Vessels anchored or moored in Richardson’s Bay shall have current and valid registration with the California Department of Motor Vehicles or current and valid documentation with the United States Coast Guard.**
- c. Richardson’s Bay is a Federal No Discharge Zone, and overboard discharge of human waste is strictly prohibited. Each vessel must have a functional adequate marine sanitation device. Discharge of pet waste overboard within Richardson’s Bay is also prohibited.**

SECTION III. Title 6, Nuisance Code, is hereby amended as follows:

Section 6.04.050 Hearing Notice/Notice to Abate, subsection b, is amended to change the location to appear before the Richardson Bay Regional Agency Board to delete reference to Sausalito, and instead read as follows:

YOU ARE HEREBY NOTIFIED to abate said condition to the satisfaction of the Harbor Master within ____ days of the date of this Notice or to appear before the Richardson Bay Regional Agency Board in the ~~Sausalito Council Chambers, 420 Litho Street, Sausalito,~~ _____, **Marin County**, California.

SECTION IV. Effective Date

This ordinance shall be and is hereby declared to be in full force and effect as of thirty (30) days from and after the date of its passage and shall be published once before the expiration of fifteen (15) days after its passage, with the names of the board members voting for and against the same in the Marin Independent Journal, a newspaper of general circulation published in the County of Marin.

PASSED AND ADOPTED at a regular meeting of the Board of Directors of the Richardson’s Bay Regional Agency held on the ___ day of _____, 201_ by the following vote:

AYES: BOARD MEMBERS
NOES:
ABSENT:

CHAIR, BOARD OF DIRECTORS

ATTEST:

RICHARDSON'S BAY REGIONAL AGENCY

STAFF REPORT

For the meeting of: July 11, 2019

To: Board of Directors

From: Beth Pollard, Executive Director

Subject: Resolution No. 03-19 for the Board of Directors of Richardson's Bay to incorporate into its enforcement priorities the enforcement of permitted time limits for vessels entering Richardson's Bay

STAFF RECOMMENDATION:

Approve Resolution No. 03-19.

BACKGROUND:

A goal of the Richardson's Bay Regional Agency (RBRA) is to improve the safety, health, and management of the bay. The Board of Directors has focused its approach towards this goal by:

- Through contracting for a marine-ecology based Mooring Feasibility and Planning Study, learn of advisable locations, technology, vessel capacity, and shore access. The study is scheduled for presentation to the Board on September 12, 2019.
- Adopting updated ordinance requirements for vessel conditions, scheduled for July 11, 2019.
- Board policy direction on unoccupied marine debris, unattended/unused mooring balls and floats, unattended and unoccupied vessels, and unregistered vessels as enforcement priorities. for efforts to improve marine health and safety on Richa
- Supporting efforts to connect vulnerable persons seeking housing with the countywide coordinated entry program

DISCUSSION:

The number of vessels on Richardson's Bay in the past year, according to census counts, has fluctuated from a high of 194 in October 2018 to a low of 146 in March, 2019 following winter storms, as shown on the attached census report. In 2018-19, RBRA removed more than 100 vessels from the bay. The most recent count on June 16, 2019 showed 184 vessels, reflecting the arrival of new vessels; some of these vessels were previously in Sausalito waters and some are new to the bay as a whole.

Following completion of the mooring study, it is anticipated that the Board may establish direction on possible pursuit of a mooring program, and if so, the maximum number of vessels that will be allowed to moor, and in what locations using what kind of equipment/technique – among potentially other parameters. The greater the number of vessels on the bay to manage in whatever transition emerges from Board action, the more time and resource-intensive the transition will take to accomplish.

Furthermore, the Board has received comments from members of the community expressing concern about the number of vessels on Richardson’s Bay as it relates to the health and safety of the bay, and urging efforts to prevent growth in those numbers.

One strategy to manage the volume of vessels is to focus on stemming the influx of vessels into Richardson’s Bay. Under this approach, notification would be given to vessels new to the bay about the 72-hour time limit and permit requirements. Enforcement actions would be taken against vessels that fail to comply. Enforcement and abatement would still continue on vessels that are marine debris or abandoned, as time and funds allow.

Implementation of time limits is not without its challenges. It requires:

- Staff time to patrol/monitor, identify new vessels and record vessel information, conduct notification, communicate with vessel owners about compliance, manage unusual situations, enforce against vessels that fail to comply – along with the associated administrative, legal, and other field work.
- Enacting a permit program.
- Means and methods for maintaining and updating a vessel database.
- Resources to abate non-complying vessels, ranging from work to cite, impound, tow, and demolish, any associated administrative and legal costs.
- Addressing the dynamics associated with incoming liveboards.
- Coordination between RBRA, County Sheriff, and in some cases the City of Sausalito.

ANALYSIS:

RBRA ordinances allows persons to anchor or moor for up to 72 hours without a permit; any person anchoring for more than 72 hours shall obtain a permit.

Approximately an estimated ten vessels per month come to Richardson’s Bay and stay beyond 72 hours. Monitoring, tracking, notifying, communicating, enforcing, conducting abatement, and engaging in other activities related to limiting new vessels on top of addressing vessels that are marine debris, in trouble on the bay (e.g. breaking loose, sinking), and/or abandoned is very challenging at best for one Harbor Administrator - who is not a peace officer - to perform.

If the Board determines that stemming the influx of new vessels is now a policy priority, strategies that could help support its success include:

- A mobile device app to maintain a census of vessels that can utilized by the Harbor Administrator as well as the Sheriff's marine patrol. RBRA's current census method involves contracting for outside services that use specialized software only accessible to law enforcement personnel. This method makes it cumbersome to impossible for the Harbor Administrator to readily access the information needed to monitor the anchorage for new vessels. However, the Sheriff's office is developing a mobile device app that would enable the Harbor Administrator to input and have access to non-privileged vessel data (i.e. data not restricted to law enforcement only personnel) on an ongoing basis; this is a game-changer for monitoring the anchorage.
- Transitioning more of the demolition of abated vessels from the duties of the Harbor Administrator to contractors. In an effort to stretch the state SAVE (Surrendered and Abandoned Vessel Exchange) grant funds further, the Harbor Administrator has handled a substantial amount of the demolition of abated vessels directly. To free up time to be on the bay to monitor and enforce on new vessels, more demolition services could be contracted rather than performed directly by staff. The objective would be to ultimately reduce the number of vessels requiring demolition by keeping the number of vessels on the bay from growing.
- Emphasizing coordination between RBRA and the County Sheriff so that there is mutual assistance where needed to share information and support efforts on limiting the stays of new vessels. The Sheriff's Marine Patrol Unit works four days per week and covers all of Marin's shoreline, so prioritization of time is critical.
- Enacting a permit program, as provided for in the RBRA code. The purpose of the permit program would be to have greater structure around the process, conditions, and requirements for vessels permitted stay longer than 72 hours as provided for in the code, up to a set limit of time. There is an investment of staff time associated with enacting a permit program.
- Recognition by the Special Anchorage Association and/or other mariners that efforts to stem the tide of new vessels at this time is not a direct threat to persons now on the bay and benefits the health and safety of the bay.
- Pursuit of a managed outreach effort among various agencies that can connect vulnerable persons in vessels on the water with the county coordinated entry program for housing assistance. Efforts are underway to pool resources, strategies, and information to connect such persons with possible housing assistance.
- Placing signage to notify incoming vessels of the time limits. Where allowed by regulatory agencies, such signage could assist in communication efforts.

The advantages to managing the number of vessels by stemming the influx of new vessels are that it:

- Does not displace liveaboard vessels that have been on the bay.
- Sends a message to the boating community that discourages bringing vessels to Richardson's Bay.
- Leads to fewer vessels being on the bay during winter storms and the eelgrass growing season.
- Demonstrates a good faith effort to manage the number of vessels.
- Results in fewer vessels that require transition to new ordinance requirements and any additional actions that emerge out of the mooring feasibility and planning study.

Disadvantages are that it:

- Requires overcoming the considerable challenges of staff time, vessel tracking, resources, coordination, and communication noted above.
- Cost risks of storing vessels that are impounded but are not claimed.
- Could detract from enforcement resources and efforts against marine debris and abandoned vessels.
- Could set unrealistic expectations that are unable to be met.

FINANCIAL IMPACT:

Implementing time limits will be a substantial use of staff time. There will be increased demand for use of the SAVE grant funds awarded to RBRA by State Boating & Waterways, with the potential for those funds to be depleted. If RBRA is successful in obtaining a marine debris vessel removal grant from NOAA, some of that stress will be alleviated.

NEXT STEPS:

The draft resolution provides Board direction to incorporate into its enforcement priorities the enforcement of permitted time limits for vessels entering Richardson's Bay. Under this direction, staff would proceed to enact a program to notify arriving vessels of the time limit and permit requirements, and pursue enforcement on vessels that fail to comply. In the initial roll-out of permitted time limits, staff envisions allowing a 30-day grace period. Staff would also pursue the strategies identified in the report to help accomplish the direction, and report back to the Board on progress at the next regular meeting,

Attachments:

Draft Resolution No. 03-19
Census report, June 16, 2019

RESOLUTION NUMBER 03-19

**OF THE BOARD OF DIRECTORS OF THE RICHARDSON'S BAY REGIONAL AGENCY
TO INCORPORATE INTO ITS ENFORCEMENT PRIORITIES THE
ENFORCEMENT OF PERMITTED TIME LIMITS FOR VESSELS ENTERING
RICHARDSON'S BAY**

WHEREAS, on December 1, 2016, the Board of Directors ("Board") of the Richardson's Bay Regional Agency ("Agency") set priorities for marine safety through an "enhanced enforcement" effort to remove unoccupied marine debris and unattended/unused mooring balls and floats, as well as enforcing registration requirements; and

WHEREAS, on November 8, 2018, the Board adopted Resolution No. 10-18 amending the enforcement priorities to add "unattended and unoccupied vessels;" and

WHEREAS, Richardson's Bay has seen an increase from 146 to 184 in the number of anchored or moored vessels between March and June, 2019; and

WHEREAS, improving the health, safety and management of Richardson's Bay is a goal of the Agency; and

WHEREAS, preventing an increase in the number of vessels anchored or moored in Richardson's Bay is beneficial to the health and safety of the bay at this time; and

WHEREAS, Agency Ordinance 91-1 states that any person anchoring a vessel in Richardson's Bay for more than 72 hours shall obtain an anchoring permit from the Harbor Master,

NOW, THEREFORE, BE IT HEREBY RESOLVED that the Board of the Agency hereby incorporates into its enforcement priorities the enforcement of permitted time for vessels entering Richardson's Bay.

PASSED AND ADOPTED by the Board of the Richardson's Bay Regional Agency on July 11, 2019.

CERTIFICATION:

Jim Wickham - Board Chair

Beth Pollard - Executive Director

RBRA Mooring Feasibility and Planning Study

SCOPE OF WORK

This scope of work is intended to examine the following from the solicitation RFP:

- **Mooring locations.** Provide mapping of Richardson’s Bay that illustrates water depths, eelgrass bed habitats/locations, and any other aquatic life, migratory bird, marine ecology or other conditions that informs accompanied recommendations on least to most advisable locations for mooring vessels, as well as for anchoring vessels.
- **Mooring equipment and technique.** Provide information, analysis and advice on mooring equipment, techniques, and associated considerations that are most and least appropriate for Richardson’s Bay, and/or for specific areas of the bay.
- **Capacity.** Given location and mooring technique considerations, and any marine ecology factors, provide information, analysis and advice on the maximum capacity of the number of moored vessels in Richardson’s Bay, with related information, analysis and advice on vessel type, size, habited or uninhabited uses, or other characteristics.
- **Shore access.** Provide information, analysis and advice about traversing from moorings, or anchors, to shore via dinghies, skiffs and tenders – motorized and non- motorized. An operative assumption for the present study is that existing shoreside landings would remain unchanged in location within Sausalito, but that other options for shoreside public landings would be explored and ecological consequences of their use would be evaluated should alternatives be identified.

The work in this study focuses on waterside elements only and is geared towards ecological considerations for mooring location, design, and numbers as well as transiting from moorings to shore. This study is geographically limited to Richardson’s Bay excluding the Audubon Sanctuary and the navigation channel.

The scope of work for the proposed action is outlined in the following tasks:

Task 1: Information Gathering and Spatial Data Development

- *Task 1.1: Ecological and physical constraints data collection*

Under this task, the M&A team would accumulate existing available spatial data for Richardson Bay that may be used to support the planning study. In addition, the team will acquire and synthesize non-spatial data that can be used to understand existing conditions and stressors on the Richardson Bay ecology. Among these data are:

- Existing eelgrass distribution data from baywide surveys (2003, 2009, and 2014);
- Audubon Christmas bird count data (1978-present);
- Regional bathymetric data (not current or accurate in all areas);
- Water quality sampling data, TMDL analyses data, Marin County SWPPP TMDL Reports
- Chronological aerial imagery of anchor-out and moored vessels
- Shoreline landing locations and services

- *Task 1.2: Data collection and issues identification meetings*

Under this task, the M&A team will solicit input from collaborators and stakeholders on the data sources identified; the strengths, weaknesses, and completeness of the data identified. The team will seek to identify any additional data sources and to identify gaps in the data. Coordination will include seeking data from

- RBRA and its member agencies
- Audubon and other environmental group NGOs or stakeholders

- Mooring advocates and liveboards
- City of Sausalito
- BCDC, NMFS, ACOE, RWQCB, CSLC, USCG, and resource and regulatory other agencies

- **Task 1.3: Additional development or processing of spatial data**

Following collaborator and stakeholder input, any additional data that are identified will be assembled and additional data development will be undertaken to further process archival information for use in plan analyses. This work will include several actions taken for spatial and numeric assessments that will be used in preparation of the plan. Among the actions anticipated to be taken under this task are:

- Reprocess 2003, 2009, and 2014 baywide eelgrass data within Richardson Bay to support evaluation of discrete mooring damage and to facilitate quantitative assessment of potential for impact reduction;
- Process comprehensive eelgrass data that was collected by M&A within the moorings in 2016 and 2018 but which has not been previously processed to eelgrass maps;
- Develop eelgrass frequency maps depicting the frequency of eelgrass presence spatially throughout the study area;
- Process bathymetric data associated with one mooring area survey to determine the scale, distribution, and intensity of bottom scaring from moorings and from transiting to shore;
- Plot the distribution and determine size and type of moored and or anchor-out vessels over multiple years using ortho-rectified aerial photographs. These include publically available photographs, as well as data from mosaic photographs collected by UAV by Audubon and M&A and photographs collected from helicopter by M&A;
- Summarize statistics of moorings including, numbers through time, composition of vessel types and sizes, and spatial distribution; and
- Extract and process data layers for wind and wave heights for multiple conditions within Richardson Bay from existing grid based wave models as discussed below.

- **Task 1 Deliverables:** Deliverables for Task 1 will be notes from collaborator and stakeholder input, spatial data inventories and source documentation, and data summaries to support the planning analyses. Task 1 deliverables will also include a gap analysis memorandum identifying any missing data and the relative importance of these missing data with respect to the present analyses and future risks or needs.

Task 2: Data Analysis and Plan Development

- **Task 2.1: Natural Resource Conflict Identification and Impact Evaluation**

Under this task, the M&A team will evaluate the extent of impact moorings have had on natural resources within Richardson Bay. In some instances these effects are highly quantifiable through time (e.g., eelgrass); and in other cases the impacts will not be as clearly definable and may ultimately be determined to be of major to minor consequence with respect to the analysis of mooring impacts. Finally, in some cases it may be determined that inadequate data exists to evaluate the effects of current moorings on the natural resources.

- **Task 2.2: Impact Reduction Analyses**

The extent of existing impact identified in Task 2.1 will be used as a basis for evaluating potential reduction levels for modified mooring design or locations. It will also provide a scalar for assessing mooring capacity as increasing mooring numbers will eventually result in increased resource impacts and more specifically increasing extent of

impact per mooring as areas with low resource conflict are used and each additional mooring encroaches more extensively on higher value resource areas. Analyses will include but not be limited to the following:

- Mooring replacements with less damaging mooring designs

The mooring design options will be considered, and a summary of mooring types available and the pros and cons of differing mooring types will be identified. The existing moorings within Richardson Bay are generally single point bow moorings with weighted chain ground tackle and long scopes on the moorings. The chains drag around the anchor point and remove eelgrass as well as suspending sediment. This excavates a hole at the mooring that subsequently becomes a detritus sump, preventing further recolonization of the area by eelgrass. The scale of the bottom damage of a given mooring is a function of multiple factors including the location of the mooring, the local wind patterns, the scope on the ground chain, the tidal range, the vessel size, and whether the vessel itself grounds on the bottom during low tides. As one scenario to be evaluated, an assessment would be made of the effects of replacement of mooring tackle to a non-ground dragging design, without relocation of moorings from current positions.

This is likely to identify some degree of impact reduction to eelgrass and may or may not affect other impact concerns. As several of the moorings have vessels that presently drag the bottom as they swing around the mooring arc, these impacts would not be reduced.

- Mooring relocations options

Under this evaluation, areas identified to have lesser ecological conflicts would be identified for potential mooring relocation. This would tend to move moorings out of eelgrass and into slightly deeper portions of Richardson Bay. Areas with greater depth and fewer eelgrass constraints do not necessarily align better or equivalently with shoreline access, preferred wind and wave environments, or lesser impacts to other ecological resources. As a result, it will be necessary to evaluate the potential effects across multiple factors of a relocation of moorings. In addition, relocation of moorings would also be expected to restrict the number or distribution of moorings and it may not be possible to accommodate all moorings within areas outside of natural resource conflict areas. As a result, this exercise will provide a means of evaluating the capacity to accommodate moorings without resource conflict or with stepwise increasing resource conflicts.

- Hybrid mooring design and relocation options

Under this evaluation, consideration will be given to how changing mooring design and location may be used together to optimize capacity to handle moorings while effectively reducing natural resource conflicts.

- *Task 2.3: Draft Plan Development and Recommendations*

Under this section, the M&A team would prepare a draft plan along with recommendations relating to:

- Mooring location
- Mooring equipment and techniques
- Mooring capacity and spacing designs
- Shore access and access routes

- **Task 2 Deliverables:** Deliverables for Task 2 will be a draft plan hard copy and digital reproducible copy of the draft mooring planning study document.

Task 3: Mooring Feasibility and Planning Study Presentation and Finalization

- *Task 3.1: Presentation of Study Results to RBRA*

Under this task, M&A will present the draft study results to the RBRA staff to obtain insights into questions, concerns, and additional issues that may need to be addressed with the public presentation of the study. This meeting will facilitate preparation of the public presentation materials and finalization of timelines and formats for the presentations.

- **Task 3.2: Presentation of Study Results to Stakeholders and RBRA Board**

Under this task, the M&A Team will provide seasoned senior staff to present the study findings and recommendations to stakeholders and the RBRA board. During these meetings, the details of the study will be discussed and a Microsoft PowerPoint presentation will be used to guide the presentation forward. The meetings will include a question and answers and comment opportunity with the comments feeding into the completion of the final planning study report.

- **Task 3.3: Finalization of the Mooring Feasibility and Planning Study**

Under this task, the study will be finalized with input derived from the comments received through the review process. As this planning study is not an action document but rather an informational document from which actions may be formulated, the mooring feasibility and planning study is not formally adopted by the RBRA Board. As such, the delivery of the finalized planning study constitutes the completion of the present program.

- **Task 3 Deliverables:** Deliverables for Task 3 will be a PowerPoint presentation file, presentation and participation in up to three stakeholder and RBRA Board meetings, and deliverable of a final hard copy and digital reproducible copy of the mooring planning study document.

Optional Tasks:

In reviewing existing data sources and analysis objectives, it has been determined that additional data collection would benefit the completion of the analysis and would strengthen the results. However, these elements are not considered to be explicitly required to achieve the basic objectives of the effort. For this reason they have been identified as optional tasks with recommendations to complete this work should opportunities be available to do so.

- Completion of new 2019 bathymetric and eelgrass surveys

Under this optional task, the M&A team would complete a new eelgrass and bathymetric survey of the potential Richardson Bay mooring and shoreline landing areas. Surveys would cover approximately 1,000 acres of Richardson Bay and would result in generation of eelgrass and bathymetric data for 2019.

More current bathymetric data is desired in order to enhance resolution of bathymetric opportunities and constraints as well as to better understand the extent of effect of moorings on bathymetric contours. New bathymetry would also assist in evaluation of sediment accretion rates relative to longevity of mooring locations, and would enhance understanding of present vessel grounding scars and mooring damage relative to bathymetry. Eelgrass data would be used to augment the frequency distribution maps as well as maximum extent of eelgrass within the study area. The study area would exclude the Richardson Bay Audubon Sanctuary, the marina developed Sausalito shoreline except mooring locations, and access areas and travel routes to current landings,

surveys would also not include the extreme shallows extending towards Mill Valley. The ultimate boundaries of the survey area would be coordinated with the RBRA should this option be exercised.

- Wind and wave climate new modeling effort

Under this optional task, ESA would develop the wind and wave climate with new modeling designed for this project: ESA will use the best readily available wind data to drive a wave generation and propagation model for three conditions, likely (1) typical, (2) 10-year recurrence and (3) 50-year recurrence. ESA would use the Simulating WAVes Nearshore (SWAN) model to develop a wave climate map. An example is provided for the San Rafael shoreline. The benefit of the optional task is that project-specific conditions will be modeled at the desired resolution. Conditions to consider include tide level used for the wave modeling (depth, which affects waves), area-specific wind and wave exposures, desired recurrence level (e.g. the 50-year instead of 100-year waves) and geospatial grid resolutions consistent with other data sets (e.g. bathymetry or eelgrass habitat). This optional task can be accomplished after the base task is completed or instead of the base task. The decision to execute or not execute this optional effort should be made prior to commencing this element of work since delaying in the implementation of this effort would result in duplicating work efforts in the analyses and thus additional costs.

SCHEDULE AND BUDGET

Schedule

The proposed schedule for the outlined work is five months and is generally driven by data collection, data processing and meeting coordination time to ensure that the planning process is well informed by the available data and stakeholder input. The schedule has been developed by work months rather than calendar months to account for uncertainty with respect to kick-off period. Should optional data tasks be exercised, the schedule will accommodate the completion of this work within the time allocated; however, it is assumed that options would be exercised at the initiation of work such that additional delays and costs may be avoided.

TASKS TO BE COMPLETED	Month	FEB	MAR	APR	MAY	JUN
Project Contracting and Kick-off	★					
Task 1: Information Gathering and Spatial Data Development		—————				
<i>Task 1.1: Ecological and physical constraints data collection</i>		- - - - -				
<i>Task 1.2: Data collection and issues identification meetings</i>			- - - - -			
<i>Task 1.3: Additional development or processing of spatial data</i>			- - - - -	★		
Task 1 Deliverables Submittal						
Task 2: Data Analysis and Plan Development			—————			
<i>Task 2.1: Natural Resource Conflict Identification and Impact Evaluation</i>			- - - - -			
<i>Task 2.2: Impact Reduction Analyses</i>			- - - - -			
<i>Task 2.3: Draft Plan Development and Recommendations</i>			- - - - -			
Task 2 Deliverables Submittal						★
Task 3: Mooring Planning Study Presentation and Finalization						
<i>Task 3.1: Presentation of Study Results to RBRA</i>						★
<i>Task 3.2: Presentation of Study Results to Stakeholders and RBRA Board</i>						- - - - -
<i>Task 3.3: Finalization of the Mooring Feasibility and Planning Study</i>						★
Task 3 Deliverables Submittal						★

Budget

The budget for the proposed work is as follows:

SUMMARY OF FEES		
Task 1	Information Gathering and Spatial Data Development	\$52,444
Task 2	Data Analysis and Plan Development	\$28,838
Task 3	Mooring Planning Study Presentation and Finalization	\$18,413
TOTAL WITHOUT OPTIONAL TASKS		\$99,695
Option 1	2019 Bathymetric and Eelgrass Surveys	\$40,004
Option 2	Project Specific Wind Wave Climate Model	\$12,200

The exercise of any options is assumed to occur at the time of work commencement if they are desired. This would avoid potential for duplicate work efforts, additional costs, and schedule delays.

The project invoicing would be on a percent complete basis for the various tasks and any requested additional services beyond the project tasked elements would be invoiced on a time and materials not-to-exceed basis against written authorizations for scope modifications.