

San Francisco Bay Conservation & Development Commission

# Richardson Bay SPECIAL AREA PLAN

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APRIL 1984

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## LETTER OF TRANSMITTAL

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April 13, 1984

To the Members of the City Councils of Sausalito, Mill Valley, Tiburon, and Belvedere; Members of the Marin County Board of Supervisors; and San Francisco Bay Conservation and Development Commission Commissioners:

As you know, Richardson Bay is a unique and irreplaceable resource to the people of southern Marin County and the entire Bay Area. However, Richardson Bay has experienced increasing problems over the past years. In order to identify these problems and to offer recommended solutions, this Special Area Plan was prepared.

The purpose of the Richardson Bay Special Area Plan is to provide uniform policies and standards to be used by Belvedere, Mill Valley, Sausalito, Tiburon, Marin County, and the San Francisco Bay Conservation and Development Commission, to manage the future use and protection of this valuable natural resource.

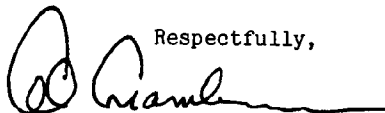
Since April, 1983, the Steering Committee -- Mill Valley Mayor Richard Spotswood; Sausalito Mayor Carol Singer Peltz; Tiburon Councilmember Valerie Bergmann, Belvedere Councilmember Erwin Farley; San Francisco Bay Conservation and Development Commission representatives Barbara Kondylis, Hans Schiller, and Barbara Eastman; and I -- have been meeting to complete our studies of Richardson Bay and our recommended plan. In our work, we have been assisted by a 50-person Advisory Committee representing local individuals and organizations, and government agencies concerned with the future of Richardson Bay; specialists in such fields as tidal hydraulics, biology, and law; and staffs of each of the participating agencies.

The plan development process included 12 public hearings; nine hearings on the various elements of the Plan and three hearings on the draft Plan. Part of this process has been the accommodation of many concerns of both citizens and organizations, from wildlife conservation to boating interests. Although not every viewpoint was accepted, all were carefully considered and many are included in the Special Area Plan.

The Special Area Plan, because of its inter-jurisdictional process, is the right vehicle at the right time to join the five local governments and the Bay Commission in a management plan that will lead to betterment of Richardson Bay now and for future generations.

I strongly urge your support for this plan.

Respectfully,



ALBERT ARAMBURU  
Chair

HT 393.C2 RS3 1984

# **Richardson Bay**

## **SPECIAL AREA PLAN**

**Belvedere**

**Mill Valley**

**Sausalito**

**Tiburon**

**Marin County**

**San Francisco Bay Conservation  
and Development Commission**

**APRIL 1984**

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Steering Committee

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## INTRODUCTION

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Richardson Bay, situated in southern Marin County, is a unique and valuable scenic and natural resource. The people of Marin County, the San Francisco Bay Area, and California have a substantial and continuing interest in its present and future use. Five local governments have jurisdiction over its waters and shoreline: Marin County and the cities of Sausalito, Mill Valley, Tiburon, and Belvedere, as does the state San Francisco Bay Conservation and Development Commission. Each of these agencies has similar goals for Richardson Bay: protection of its natural resources; use of the water for water-oriented purposes; restoration and enhancement of degraded tidal wetlands; and provision of public access to and along its shoreline.

In recent years, proposals for the expansion of existing recreational boat marinas and construction of new such marinas which would increase the amount of boat berths in Richardson Bay by 50 percent have been made as well as proposals to expand existing and develop new houseboat marinas. In addition, many vessels and floating structures used primarily as residences have anchored or moored offshore in Richardson Bay. On land, new developments have been proposed, each with shoreline public access opportunities.

Because Richardson Bay is a relatively small and enclosed body of water, activities that occur in one local jurisdiction have impact on the other four jurisdictions as well as the Bay Commission's jurisdiction. Recognizing this, the agencies determined there was need for a unified set of planning policies and regulatory controls that would be common to the local governments and the Bay Commission. Thus, the purpose of the Richardson Bay Special Area Plan is to recommend to each agency uniform policies and regulations for adoption as the agency's specific policy for Richardson Bay.

## PLANNING PROCESS

The local governments and the Bay Commission appointed a Steering Committee composed of one member of the Marin County Board of Supervisors; one member each from the city councils of Sausalito, Mill Valley, Tiburon, and Belvedere; and three members of the San Francisco Bay Conservation and Development Commission, to guide preparation of the recommended plan. In addition, an Advisory Committee of over 50 individuals representing local residents, groups, organizations, and public agencies with an interest in the future of Richardson Bay was formed to provide information and guidance to the Steering Committee during preparation of the recommended plan.

Five planning background reports were prepared by agency staff and consultants for analysis and tentative adoption by the Steering Committee:

(1) Status of Shoreline and Water Uses of Richardson Bay; (2) Water Quality Issues in Richardson Bay; (3) Sediment Hydraulics of Richardson Bay; (4) Aquatic and Wildlife Resources of Richardson Bay; and (5) Regulations Report

for Richardson Bay Special Area Plan. The reports were first reviewed by the Advisory Committee and were then transmitted to the Steering Committee with the Advisory Committee's comments and recommendations. These reports provided the information needed to prepare the findings and policies of the recommended Special Area Plan, as well as allow opportunity for public involvement in discussions of the Advisory Committee and hearings of the Steering Committee. The Advisory Committee held four meetings to discuss the background reports and the Steering Committee held nine hearings on the reports at six meetings, including two joint meetings within the Advisory Committee. In addition, three hearings of the Steering Committee were held to consider the draft Richardson Bay Special Area Plan before its adoption.

#### DEFINITIONS

Following are definitions of words and terms used in the Special Area Plan:

1. "Houseboat" means a structure in the water, floating or not floating, used for an extended period of time for private residential use and generally not used for recreational or active navigational use.
2. "Live-aboard" means a vessel having capability for active self-propelled navigation moored for an extended period of time and used continuously during that time for private residential use and used on some occasions for recreational or commercial purposes.
3. "Moored for an extended period of time" means, when not in conflict with local codes, located for 30 days or more in one place.
4. "Anchor-out" means a houseboat or live-aboard which is moored or anchored offshore and not at a marina or shoreside facility.
5. "Richardson Bay" means the water covered areas including all tide and submerged lands, tidal marshes, and diked wetlands as shown on the Richardson Bay Special Area Plan Maps.
6. "Local government" means Marin County and the cities of Sausalito, Mill Valley, Tiburon, and Belvedere.
7. "BCDC" or "Bay Commission" means the San Francisco Bay Conservation and Development Commission.
8. "MLLW" or "mean lower low water" means a tidal datum or level which is calculated by determining the mean of the height of the lower of the two daily low tides.

9. "Water-oriented use" means water-related industries, ports, airports, wildlife refuges, water-oriented recreation and public assembly, and desalinization plants and power plants requiring large amounts of water for cooling purposes.
10. "Recreational boat" or "commercial boat" means any vessel capable of active self-propelled navigation and is used principally for recreation, fishing, or commercial uses. Such vessels may be used occasionally for residential purposes but they are not used for long-term residential purposes.
11. "Fill" or "Bay fill" means earth or any other substance or material, including pilings or structures placed on pilings, and structures floating at some or all times and moored for extended periods, such as houseboats and floating docks.

#### PLAN CONTENTS

The Special Area Plan consists of three parts. Part I contains the Plan findings and policies. Part II includes the Special Area Plan Maps which graphically depict the Plan policies, and Part III describes the recommended program for carrying out the Plan.

# **Part I: Findings and Policies**

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RICHARDSON BAY  
SPECIAL AREA PLAN

## AQUATIC AND WILDLIFE RESOURCES

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Richardson Bay provides a wide range of aquatic and wildlife habitats for abundant and diverse populations of fish and wildlife. Because of its location sheltered from strong tides and winds and close proximity to the Pacific Ocean, Richardson Bay is an area of high value for fish that spend part of their life in the ocean and part in an estuary, and for sea birds and migratory waterfowl as a refuge during winter storms. It is estimated that over 350,000 birds seek refuge during the winter months in the Audubon Society's wildlife sanctuary alone. Because of the shallowness of the Bay's water, many acres of mudflats are exposed at low tide providing important feeding areas for shorebirds and habitat for algae and small crustaceans. Moreover, Richardson Bay is one of the few areas in the San Francisco Bay system in which harbor seals reside and haul out.

## FINDINGS

1. Richardson Bay and its immediate surrounding upland area provide an environment for a wide range of aquatic and wildlife species because of the close proximity of many diverse habitats and the Bay's location sheltered from strong winds, waves, and tides. These habitats can be generally classified as: (a) marine, estuarine, and subtidal channel and basin water areas; (b) tidal and diked marshes; (c) rocky shore, sandy-pebble beach, mud flat, and artificial structure shorelines; and (d) upland areas.
2. The deep, saline, and cold marine water environment of Richardson Bay is an important segment in the migratory route of anadromous fish and habitat for other ocean living fishes.
3. The major open water area of Richardson Bay is estuarine. Estuaries provide a rich habitat for aquatic vegetation and wildlife. Eelgrass beds, rare in San Francisco Bay, flourish in Richardson Bay and provide a major source of detritus, a primary food source in the Bay ecological food chain. In addition, herring, an important commercial fish, attach their eggs to the eelgrass leaves during the spawning season.
4. Subtidal channels and basins form a network in the shallow mud flats and tidal marshes of upper Richardson Bay acting as conduits for tidal water to flow to the upper reaches of the shallow tidelands. At low tide, the channels and basins retain water where invertebrates tend to congregate, and the habitat becomes an important foraging area for shorebirds and ducks.
5. Rocky shorelines, which include riprap, provide habitat for a number of invertebrates that seek protection among the rocks or burrow in the fine material located behind riprap and in pockets of the natural rocky areas.

6. Sandy-pebble beach is a limited habitat area because the mixture of sand, shells, and small rocks mixed with Bay mud is constantly moving and shifting with the tide. Only invertebrates that can burrow into the deeper substrate live in this environment.
7. Tidal marshes are extraordinarily fertile and, along with eelgrass, are a major source of detritus. Tidal marshes also provide shelter for many invertebrates and shorebirds, produce oxygen, cleanse polluted Bay waters, and are used for foraging by shorebirds. Most marine and estuarine life in Richardson Bay depends directly on these marshes for sustenance or indirectly upon them by feeding on other aquatic life so nourished. Moreover, a few stands of salt marsh birds beak (*Cordylanthus maritimus*), a rare and endangered annual plant, are located in upper Richardson Bay tidal marshes in Mill Valley and near the Marin Heliport.
8. Upland habitat provides a buffer area for water and marsh area wildlife, particularly shorebirds and migratory waterfowl, insulating the water areas from upland urban activity. Further, upland areas provide shelter and a food foraging area for Bay-related wildlife, particularly shorebirds, during periods of very high tides. Moreover, uplands provide opportunities for public access to marsh and open water areas.
9. Approximately 55 fish species inhabit Richardson Bay all year or for part of their life cycle. Richardson Bay is particularly important for fish spawning and as a habitat for fish in their early lives. Pacific herring, a valuable commercial fish, spawn in the shallow waters and eelgrass beds of Richardson Bay from December through February. The herring and herring eggs are also very important sources of food for birds that inhabit the Bay during winter. Because of their abundance and importance as a food source, herring may be the most important fish in Richardson Bay.

Anadromous fish, including salmon, steelhead trout, striped bass, sturgeon, and shad, migrate through the marine environment of Richardson Bay upstream through the Delta to fresh water to spawn. These fishes, particularly the young, also venture into the shallower waters of Richardson Bay to rest and feed. The primary migration period for these fishes is in the spring (generally April through June); however, salmon and steelhead also migrate in the fall (late August through November); and some salmon migrate in the winter (December and January).

Pelagic bait and forage fishes in Richardson Bay, including the Pacific herring, northern anchovy, jacksmelt, and topsmelt, are important food sources for larger fishes and some mammals, such as the harbor seal, and

birds such as gulls, terns, grebes, pelicans, cormorants, ducks, and kingfishers.

Marine fishes, which include flounder, sole, and perch, provide some sport fishing in Richardson Bay.

10. There are two shellfish beds in Richardson Bay that contain approximately 146,000 clams. However, shellfish are not presently authorized to be taken from these beds for human consumption because they contain pollutants. The Richardson Bay shellfish population can be

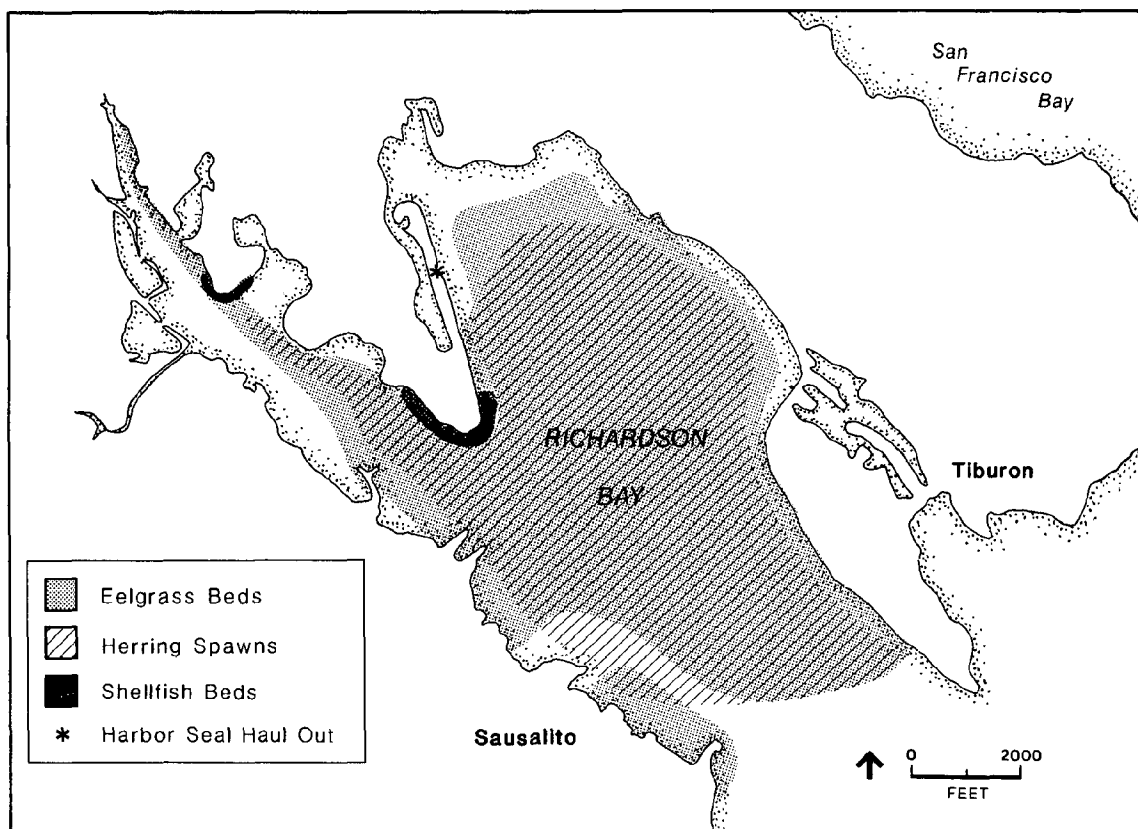


FIGURE 1

### Select Resource Areas

SOURCE: Dept. Fish & Game MRA Report 82-6  
Aug. 1982, S.F. Bay Shellfish, ABAG, 1977.

expected to flourish and be safely taken for consumption by recreational clambers after water pollution has been significantly reduced.

11. Richardson Bay provides an important environment for many species of birds. The sheltered open water areas are extensively used by migratory waterfowl particularly during the winter months. The mud flats and tidal marshes are heavily used by shorebirds. These birds feed in the Bay muds and subtidal channels and basins and seek shelter in the tidal marshes.
12. Harbor seals, found in only a few areas in San Francisco Bay, inhabit Richardson Bay and haul out on Strawberry Spit, mainly between November and April. In addition, some seals haul out on floating booms and jetties along the Sausalito waterfront.
13. The state Mount Tamalpais Game Refuge and the Audubon Society's Richardson Bay Wildlife Sanctuary help protect Richardson Bay wildlife. No boating is allowed within the 900 acre Audubon Society Sanctuary during the winter months when the Sanctuary is heavily used by migratory waterfowl as a resting and feeding area. (See Figure 2)

#### POLICIES

1. The open water, marshes, and mud flats of Richardson Bay are particularly valuable wildlife habitat and should be afforded maximum protection. Eelgrass beds, important to herring spawning and for production of detritus, should also receive maximum protection.
2. Future shoreline developments adjacent to mud flats or tidal or diked marshes should provide a natural landscaped buffer area between the development and the shoreline. The buffer area should be a minimum of 20 to 40 feet wide, depending on the sensitivity of the wildlife and the density and intensity of development, and should be planted with native shrubs and trees such as coyote brush, toyon, and coast live oak.
3. The harbor seal haul-out area on Strawberry Spit should be further protected by buoys placed offshore of the haul-out site during the haul-out season (November to April).
4. Open areas of Richardson Bay used as resting and feeding areas by migratory waterfowl during the winter should be protected from speeding boats through continued patrolling of the Audubon Society Sanctuary and by posting of notice of boat speed restrictions in upper Richardson Bay.

5. Any development within Richardson Bay should avoid destruction of marshes, mud flats, shellfish beds, and eelgrass beds. If such losses are unavoidable, the project should be authorized only if the minimum amount of habitat disturbance necessary to accomplish the purpose of the project occurs and the habitat loss is mitigated to the fullest extent. Mitigation should be within Richardson Bay, preferably at the development site, or if that is not feasible, at a site identified in the Tidal Restoration and Marsh Enhancement section of the Special Area Plan.

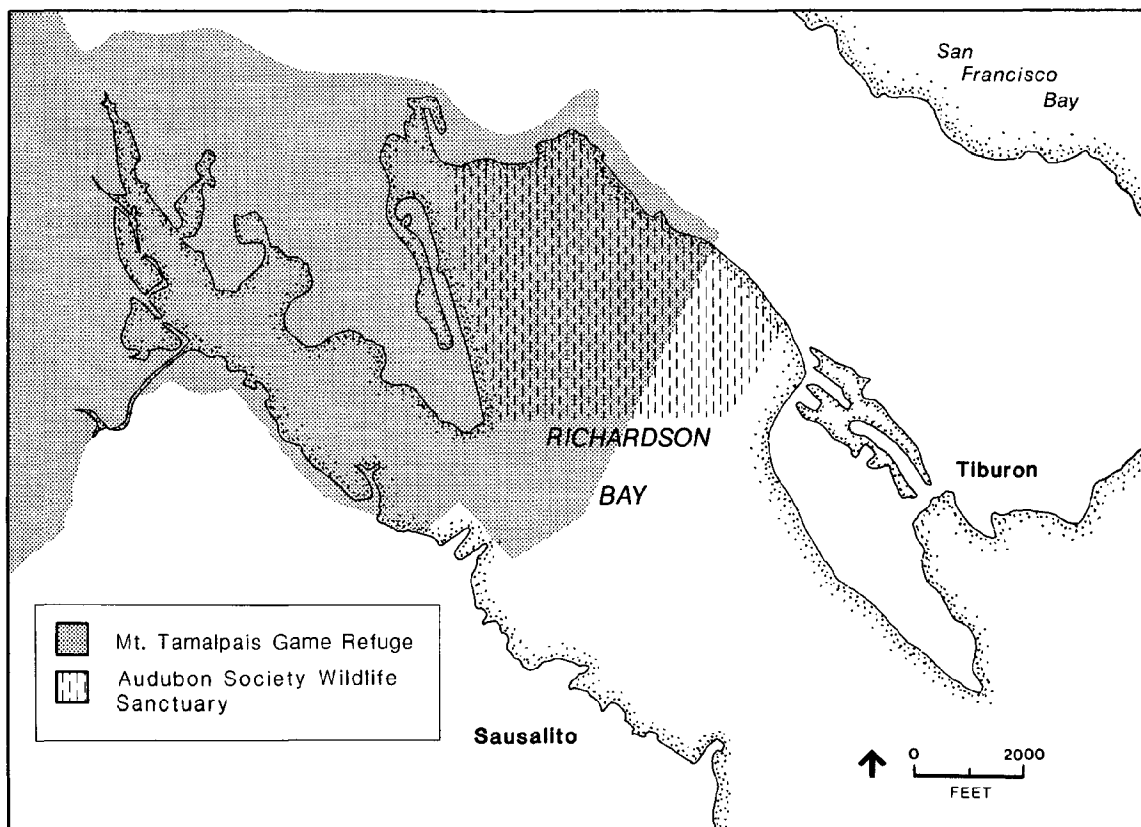


FIGURE 2

**Wildlife Refuge and Sanctuary**

SOURCE: Fish & Game Code and Audubon Society

## WATER QUALITY

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Clean marine and estuarine water provides opportunities for recreational activities such as swimming, wading, wind surfing, fishing, and shellfish harvesting. In addition, shoreline recreation activities such as hiking, bicycling, and picnicking are far more enjoyable when the water is not impaired with visible signs of water pollution. Clean marine and estuarine water also provides a healthy habitat for aquatic life, such as resident and migratory fish, for shellfish, and for wildlife including many species of shorebirds, waterfowl, and even mammals such as harbor seals.

Marine and estuarine water, particularly in urban areas, can become polluted and the values and uses of the water severely impaired. Improperly treated sewage discharged into the waters can carry coliform bacteria and biological oxygen demanding substances. Coliform bacteria can transmit diseases to humans that ingest the water or can contaminate shellfish that, when eaten, can cause human illness. Biological oxygen demanding substances deplete oxygen necessary for aquatic life. Heavy metals washed into the waters from streets and parking lots, particularly during the rainy season, can contaminate many forms of aquatic life, particularly resident fish and shellfish. Sediments carried into the water from upland soil erosion can smother fish spawning grounds, increase water turbidity, and contribute to shoreline accretion in areas of minimal tidal circulation.

Richardson Bay has suffered from water pollution for many years. Because of its enclosed shape, shallowness, and minimal tidal flushing action, pollutants are slow to disperse and to assimilate into the water thereby making Richardson Bay particularly susceptible to pollutant concentration.

The major pollution sources in Richardson Bay have been: (1) treated municipal wastewater; (2) wet weather overflows from municipal treatment plants; (3) untreated wastewater from unsewered houseboats and live-aboards; (4) urban water runoff; (5) sedimentation and erosion; and (6) dredging and dredged material disposal.

As a result of a number of federal, state, and local water pollution abatement programs, the waters of the San Francisco Bay system and Richardson Bay are becoming significantly cleaner. However, pollution problems still exist in Richardson Bay and additional steps should be taken to improve the quality of Richardson Bay waters.

## FINDINGS

1. There are 11 categories of beneficial uses of Richardson Bay water established by the State Water Resources Control Board and the San Francisco Bay Regional Water Quality Control Board. Three of these uses -- human water contact recreation, non-contact water recreation,

and shellfishing harvesting -- have been identified by the Boards as "key beneficial uses" to be protected in Richardson Bay.

2. Water quality in Richardson Bay is influenced by a number of human related processes. The most important factors include: (a) release of untreated and treated wastewater; (b) urban storm water runoff; (c) erosion and sedimentation; and (d) dredging and dredged material disposal.
3. The water quality of Richardson Bay affects its attractiveness and recreational value. Two critical pollutant measures of whether or not the water is safe for human recreation are the coliform bacteria standards for human water contact recreation and for shellfish harvesting. The levels of coliform bacteria, representing mainly the release of untreated sewage and graywater, decreased dramatically during the period 1962 to 1973; however, during the period 1973 to 1981, levels of coliform bacteria in Richardson Bay increased in some areas around certain recreational boating and houseboat marinas that lacked sanitary sewer service to houseboats and residential vessels.
4. Discharge of treated municipal wastewater into Richardson Bay constituted a major source of water pollution in the form of coliform bacteria, biochemical oxygen demanding substances, and biostimulatory substances. Because of the shallowness of Richardson Bay, poor tidal circulation, and limited capability for pollutant and water mixing, the Regional Water Quality Control Board has banned treated municipal wastewater discharges into Richardson Bay. The Sewerage Agency of Southern Marin and the Sausalito-Marín City Sanitary District are currently carrying out extensive municipal wastewater treatment plans and programs which will: (a) improve treatment at all southern Marin treatment plants -- Sausalito-Marín City, Mill Valley, and Sanitary District No. 5 -- to secondary treatment level and (b) discharge the treated effluent outside Richardson Bay into the deep water of Raccoon Strait and off the Marin Headlands to assure proper mixing of treated wastewater and Bay water. The Raccoon Strait outfall pipe was completed in September, 1983 and the upgraded Mill Valley and Sanitary District No. 5 treatment plants should be operational in March, 1984. Work on the Sausalito-Marín City treatment plant expansion is scheduled to begin in July, 1984, and should be completed within one and a half to two years.
5. Wet weather overflow discharge into Richardson Bay is a serious source of water pollution. Wet weather discharges occur during and after rainstorms when storm water infiltrates sanitary sewers and overloads sewer and treatment plant capacity. The upgraded treatment plants at Mill Valley, Sanitary District No. 5, and Sausalito-Marín City are

designed to accommodate and treat wet weather sewage overflow to the level required by the Regional Water Quality Control Board's Basin Plan.

6. Urban storm water runoff can carry a variety of pollutants into Richardson Bay. For example, runoff from bayside parking lots can be a source of oil, gasoline, and other pollutants. Because most of this runoff cannot be treated before it enters the Bay, it is necessary to remove the pollutants from land areas before they come into contact with storm water runoff. Marin County and the cities of Sausalito, Mill Valley, Tiburon, and Belvedere are carrying out the urban runoff control measures recommended in the Marin County Surface Runoff Management Plan prepared by the County and the cities to improve the quality of surface runoff into Marin County waters.
7. Although dredge spoils cannot be deposited in Richardson Bay, dredging is commonplace and necessary to maintain existing navigational channels and marina basins in the shallow Bay. Dredging often has short-term, localized adverse impacts on the environment. In some locations, Bay mud may contain pollutants and toxic materials that could be released into the water during the dredging process. If dangerous pollutants are present, they will affect whether dredging should be permitted and, if so, where the dredged material should be disposed.
8. Although suspended sediment concentrations in San Francisco Bay are projected to decrease over the next 50 years, increased sediment loads are entering Richardson Bay from its surrounding watershed.
9. Sedimentation, a product of soil erosion, can have an adverse impact on estuarine water bodies, including Richardson Bay, by covering and eliminating aquatic habitat such as shellfish beds and fish spawning grounds, by increasing conversion of marshes to upland when sediment becomes trapped and builds up in stands of marsh plants, and by filling in natural and dredged navigational channels and marina and boat basins.
10. The natural soil erosion process is accelerated when the soil surface is disturbed, particularly during construction, and when the protective vegetative cover is removed. The disturbed soil mantle is exposed to falling rain and sheet flows of water, which results in the increased movement and loss of soil particles to stream channels and other storm water drainage systems and ultimate deposition in the Bay as sediment.
11. In most cases, the impact of human activity on the land which results in erosion and sedimentation can be substantially reduced and often eliminated by employing proper erosion and sediment control practices. The Association of Bay Area Governments has prepared and adopted a Manual of Standards for Surface Runoff Control Measures which includes

model erosion and sediment control ordinances and standards. The Regional Water Quality Control Board has directed Richardson Bay local governments to develop erosion and sediment control regulatory programs which are consistent with the Manual and to provide for the installation of approved erosion control measures prior to the start of the annual rainy season (October 15 - April 15). Local governments are currently preparing these programs.

12. The most effective method of controlling erosion on disturbed land is to install erosion control measures, particularly revegetation of the disturbed land, in advance of the rainy season and to prohibit land disturbance, particularly on hillsides, during the rainy season.
13. The U. S. Coast Guard, pursuant to the federal Clean Water Act, has established standards for the design and use of marine sanitation devices (MSDs) which are designed to prevent discharge of untreated or inadequately treated sewage from new vessels and existing vessels, except vessels not equipped with installed toilet facilities. Toilet facilities installed on vessels must be Coast Guard approved MSDs. State and local governments are preempted from adopting or enforcing regulations with respect to the design, manufacture, installation, or use of any MSD.
14. Pursuant to the federal Clean Water Act, the Regional Water Quality Control Board may prepare a petition to be approved and transmitted from the State Water Resources Control Board to the federal Environmental Protection Agency (EPA) requesting the EPA to designate Richardson Bay as a vessel sewage no discharge area. If Richardson Bay is established as a no discharge area, sewage and graywater discharge may be regulated by the state, and enforced at the local level. However, it is not clear whether such prohibition could legally include a requirement of houseboat and live-aboard sewer hookups. Absent establishment of a no discharge area, it appears that the enforcement of sewage discharge from vessels is the responsibility of the Coast Guard.
15. Both sewage (human body wastes) and graywater (galley, bath, and shower water) discharged from vessels or floating structures in Richardson Bay pollute its waters. Some authorized houseboats and live-aboards as well as most, if not all, unauthorized houseboats and live-aboards, do not have U. S. Coast Guard (MSDs) and are not connected to a Regional Water Quality Control Board or Marin County Department of Environmental Health approved sewage and graywater treatment system; they might discharge untreated sewage and/or graywater directly into Richardson Bay.
16. The number of unauthorized houseboats and live-aboards in Richardson Bay has increased in the last ten years, although numbers fluctuate. The

Regional Water Quality Control Board staff estimates that between ten and 20 percent of Richardson Bay recreational berths are used for live-aboard boats. Other local surveys estimate that approximately ten percent of the boats may be live-aboards. Although many of the live-aboards have marine heads (toilets) and other facilities such as galleys, none are hooked up to shoreline sewage systems. Some may be equipped with sewage holding tanks (Type III MSD) but few, if any, use the two existing shoreline pumpout facilities. While some houseboats and live-aboards may have U. S. Coast Guard approved (MSDs), others do not. Some have installed alternative sewage disposal systems that presently would be unacceptable to the Regional Water Quality Control Board or the Marin County Department of Environmental Health.

17. The most effective and reliable method of treating sewage and graywater and assuring that the wastes are not discharged into Richardson Bay is the installation of a direct continuous pumpout connection from the live-aboard vessel or houseboat sewage and graywater source facilities to a shoreside sewage treatment facility. Another effective method of treatment is the containment of sewage and graywater within separate live-aboard or houseboat holding tanks which are pumped out at a sewage pumpout station which is directly connected to a shoreside sewage treatment facility.
18. An alternate system of gathering sewage and graywater from houseboats and live-aboards may also be feasible: floating a large holding tank with pumpout mechanism (commonly called a honey barge) around to vessels used as residences. Under this system, sewage and graywater are pumped from the separate holding tanks into the larger barge holding tank for transport to a shoreside pumpout facility and sewage treatment system. Although there is little experience with such a system, the system is theoretically workable. It would involve costs of constructing a holding tank barge system and operating and administering the system. Any such system must be licensed by the Marin County Department of Environmental Health. The staffs of the Regional Water Quality Control Board and Marin County Department of Environmental Health have both expressed scepticism about the economic feasibility and reliability of such a system.

#### POLICIES

1. The funding and construction of approved sewage treatment facilities to end treated municipal wastewater discharges into Richardson Bay should be expedited as much as possible by local, regional, state, and federal agencies.

2. Existing sewage collection systems should be upgraded and new treatment plants should be designed to accommodate wet weather flows to prevent the discharge of untreated sewage on land or into Richardson Bay.
3. Local governments should continue to carry out the urban runoff control measures recommended in the Marin County Surface Runoff Management Plan to the maximum extent feasible. Bayside parking areas should be designed and constructed so that pollutants are retained on land and not washed into Bay waters.
4. Proposed projects which include new dredging should include testing Bay muds for possible pollutants and contaminants early in the project planning process.
5. The local governments should adopt erosion and sediment control ordinances and regulatory programs that are consistent with applicable provisions of the Association of Bay Area Governments' Manual of Standards for Erosion and Sediment Control Measures as required by the Regional Water Quality Control Board. The ordinances should: (a) either prohibit grading during the rainy season (October 15 - April 15) or provide that grading during the rainy season be authorized only when the local government determines that at no stage of the work will there be any substantial risk of increased sediment discharge from the site; (b) require that all erosion and sediment control measures be installed and operable by the first of October; and (c) provide an exception to (a) and (b) above in emergency situations.
6. The San Francisco Bay Conservation and Development Commission should include erosion and sediment control conditions in its Richardson Bay permits involving shoreline work consistent with applicable provisions of the Association of Bay Area Governments' Manual of Standards of Erosion and Sediment Control Measures and: (a) prohibit grading in the Richardson Bay shoreline band during the rainy season (October 15 - April 15) except when the Commission determines that at no stage of the work will there be any substantial risk of increased sediment discharge from the site; and (b) require installation of all erosion and sediment control measures by the first of October. The Commission should make an exception to the requirements of (a) and (b) above when grading is required in emergency situations.
7. Marinas and yacht harbors should install sewage and graywater pumpout facilities available for public use in easily accessible locations and provide the service free of charge or at a reasonable fee to offset maintenance costs. Marinas and yacht harbors with vessels used as residences should provide on land conveniently located restrooms,

showers, parking, and garbage disposal facilities adequate to serve authorized resident live-aboard occupants.

8. There should be no discharge of sewage into Richardson Bay and existing discharges should be eliminated. The local governments and the Bay Commission should request the Regional Water Quality Control Board to petition the federal Environmental Protection Agency(EPA) to designate Richardson Bay as a vessel sewage no discharge area.
9. All houseboat marinas which have houseboats which have sewage or graywater producing facilities onboard should install and maintain sewage and graywater facilities that will directly connect a houseboat to a shoreside sewage treatment system. Houseboats which have sewage and graywater producing facilities onboard should be equipped with and use a system that connects the facilities to a shoreside sewage treatment facility.
10. Subsequent to Richardson Bay being declared a no discharge area by the EPA:
  - a. All recreational boat marinas and yacht harbors which have live-aboards which have sewage or graywater producing facilities onboard should either provide and maintain sewage and graywater facilities that will directly connect live-aboard vessels to a shoreside sewage treatment facility or provide conveniently located sewage pumpout facilities and provide the pumpout service free or at reasonable fee to offset maintenance costs;
  - b. Live-aboards which have sewage producing facilities onboard should be equipped with and use a system consistent with U. S. Coast Guard regulations that connects the facility to a holding tank which can either be directly connected to a shoreside sewage treatment facility or be emptied at a sewage pumpout station; and
  - c. Transient vessels should comply with the sewage no discharge requirements.
11. Subsequent to Richardson Bay being declared a no discharge area by EPA, the Marin County Department of Environmental Health and the Regional Water Quality Control Board should continually monitor the water quality in marinas in which live-aboards discharge graywater and at least every two years report whether the graywater is polluting the marina. If it is determined that the discharged graywater is polluting the water, the live-aboard graywater producing facilities should either be directly connected to a shoreside sewage treatment system or to a holding tank that can be emptied out at a pumpout station.

12. Commercial fishing boat dock facilities should provide onshore restrooms and shower facilities for resident fleet and transient fishing vessel crew use. If live-aboards are authorized at the facility, and subsequent to Richardson Bay being declared a no discharge area by the EPA, the dock owner should either provide and maintain sewage and graywater facilities that will directly connect live-aboard vessels to a shoreside sewage treatment facility or provide a conveniently located sewage pumpout facility and provide the service free or at a reasonable fee to offset maintenance costs. The live-aboard vessels with sewage producing facilities onboard should be equipped with and use a system consistent with U. S. Coast Guard regulations that connects the facility to a holding tank which can either be directly connected to a shoreside sewage treatment facility or be emptied at a sewage pumpout station.
13. Funding should be sought for new studies by the Regional Water Quality Control Board of the water quality of Richardson Bay to evaluate the effect of Richardson Bay water pollution control programs.

## NAVIGATION CHANNELS, MARINAS, ANCHORAGES, AND MOORAGES

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Because of its sheltered location, size, and proximity to Sausalito and San Francisco, Richardson Bay is especially suitable as an anchorage and harbor for recreational and small commercial vessels. It has a long history of maritime use as a watering station and harbor for careening, whaling, fishing, and shipbuilding since the first settlement of the Bay Area. Since the second world war, however, recreational boating has grown to become the major maritime use of the Bay. There are now approximately 2,000 recreational marina berths, primarily located in five marinas that have been constructed by dredging the shallows along the Sausalito waterfront. In addition, there are approximately 550 houseboats, mainly located in four houseboat marinas located along the western waterfront of the Bay. Some private small boat docks have been built next to homes in the Strawberry area, in Belvedere, and in Shelter Bay.

At present there are proposals to add approximately 1,000 additional recreational marina berths, of which 260 already have construction approval.

Navigation problems are occurring in Richardson Bay largely due to the high concentration of boating activity and marinas along the Sausalito waterfront and unregulated anchoring in the navigation lanes.

### FINDINGS

1. The western shore of Richardson Bay, all of Belvedere Cove, and the eastern shore of Corinthian Island are very suitable locations for small boat harbors because of their sheltered positions and proximity to deep navigable water and the Golden Gate.
2. The typical sail-powered pleasure cruising vessel using Richardson Bay has a draft to the bottom of the keel of about five feet. Motor cabin cruisers typically draw two to three feet and commercial fishing vessels have drafts to ten feet.
3. A vessel with a draft of five feet requires a depth of minus seven feet mean lower low water (-7 feet MLLW) for flotation 100 percent of the time. To allow for inaccuracies in dredging, navigation channels and berthing basins would need to be maintained at -8 feet MLLW for 100 percent flotation.
4. The channel to the U. S. Army Corps of Engineers' Operations Base and turning basin is dredged to between -27 and -30 feet MLLW and is the only actively maintained navigation channel in Richardson Bay. The channel is not a congressionally authorized project but is considered part of the maintenance expense of the Corp's Operations Base.

5. In 1970, Congress authorized the extension of the Corps of Engineers channel to the then proposed Mill Valley small boat harbor. The extended channel was referred to as the Saucelito Canal, but was never dredged because of high cost and is now considered an "inactive" Corps of Engineers project. The City of Mill Valley does not now propose development of a small boat harbor.
6. The Salt Works Canal, which would extend the Corps of Engineers channel to Greenwood Cove, has neither been authorized by Congress or maintained, however, channel markers have been placed along the natural channel to assist in navigation.
7. Unregulated vessels and floating structures anchored or moored in the Marinship Launching Basin area and in the channel leading from Strawberry Spit and the upper part of Richardson Bay to the Corps of Engineers channel are an impediment to navigation.
8. Encroachment of boat docks on natural deep water channels and on designated navigation channels is an impediment to navigation.
9. The U. S. Coast Guard establishes anchorages where vessels may be safely moored without interfering with or presenting a safety hazard to navigation. Except for fairways and navigational channels, vessels may anchor or moor in designated general or special anchorages or other undesignated areas without limitation on specific location or length of stay unless otherwise prohibited by the U. S. Coast Guard. (See Figure 3)
10. Under the federal River and Harbors Act, the Secretary of Transportation is the sole authority which may define and establish anchorage grounds in all navigable waters of the United States. However, provisions are made for local governments to petition the U. S. Coast Guard when they propose new or changed anchorage regulations. To accomplish this, the local District Commander has been given authority to recommend changes in federal anchorage regulations whenever the maritime or commercial interests of the United States require such anchorage grounds for safe navigation. When deemed appropriate, local ordinances can be included as notes to the federal anchorage regulation.

#### POLICIES

1. The Corps of Engineers' channel and turning basin, vitally important for the maritime future of Richardson Bay, should continue to be marked and maintained.

2. The Marinship Launching Basin should be locally designated and marked as an area of navigation.
3. The Saucelito Canal should be locally designated and marked as a 100-foot wide navigation channel from the Marinship Launching Basin along the natural deep water channel on the northern side of upper Richardson Bay past Strawberry Point to the Shelter Bay harbor.
4. An 100-foot wide navigation channel should be designated and marked from the Saucelito Canal to the Kappas Yacht Harbor.

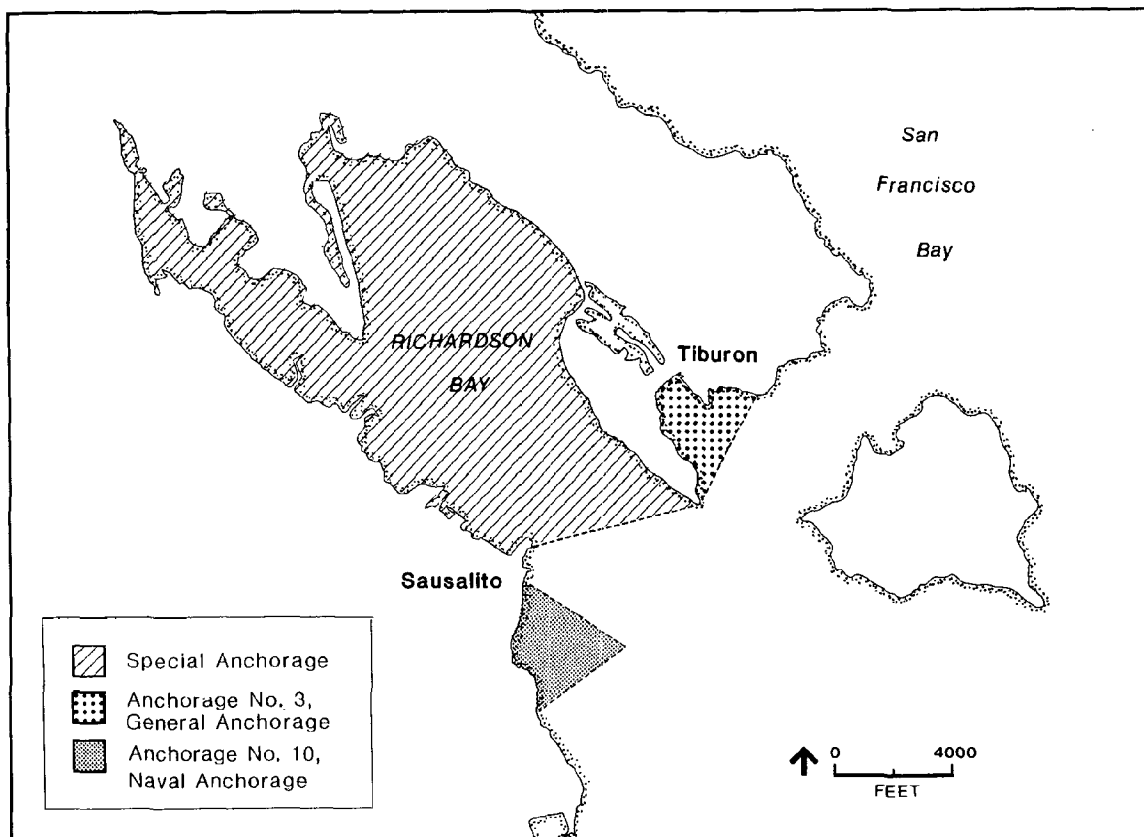


FIGURE 3

### Federal Anchorages

SOURCE: Code of Federal Regulations, 33CFR 110.126(a):  
33 CFR 110.224(a) (1) and (8)

5. An 100-foot wide navigation channel from the Saucelito Canal to Greenwood Cove through Strawberry Lagoon should be locally designated and marked. The new navigation channel would become operable at the time the channel is cut through Strawberry Spit. At that time, the Salt Works Canal navigation aide markings should be removed.
6. New marinas should be located only in deeper tidal water areas sheltered from strong winds, waves, and storms and adjacent to waters of sufficient depth for navigation or adjacent to maintained navigation channels.
7. The local governments should jointly petition the U. S. Coast Guard to amend the federal Richardson Bay anchorage regulations to include the authority of local anchorage and moorage ordinances as notes to the federal anchorage regulations.
8. Boat docks and floats and other structures or objects should not encroach on the Richardson Bay navigation channels and areas designated on Plan Map 6, Navigation Plan.

## DREDGING AND SPOILS DISPOSAL

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Until the last few years, the long term maintenance dredging requirements for Richardson Bay marinas and navigation channels have not been a major consideration for regulatory authorities. This is partly because most marinas have been constructed in the last 30 years, and only now is the need for long-term maintenance dredging becoming apparent. However, with the dramatic increase in the last decade in dredging costs and the increasing concern over the adverse environmental effects and costs of dredge spoil disposal, agencies and marina developers and operators are interested in evaluating the overall maintenance dredging requirements for existing and future marina development in Richardson Bay, with the purpose of minimizing dredging costs and adverse environmental impacts.

### FINDINGS

1. Water depths in most of Richardson Bay appear to be stable and in equilibrium with natural sedimentation and erosive forces. In fact, the natural shallows and mud flats of Richardson Bay appear to be experiencing a small net rate of erosion over the last 30 years, probably because the effects of the historic Sierra hydraulic mining on suspended sediment concentrations in San Francisco Bay have now dissipated.
2. Sedimentation rates in Richardson Bay marinas amount to about 0.2 foot per year and are markedly lower than elsewhere in San Francisco Bay because of the partial isolation of Richardson Bay from the main San Francisco Bay tidal system. Typical average sedimentation rates in artificial dredged channels in Richardson Bay amount to about 0.5 foot per year.
3. The optimal maintenance dredging depth for marinas and navigation channels, including the Marinship Launching Basin, appears to be about a minimum depth of -8 feet MLLW. By dredging to that depth and allowing siltation to -4 feet MLLW, the dredging pattern followed by some Richardson Bay marinas, maintenance dredging would be required about every 20 years for marina basins and every eight years for navigation channels.
4. With the existing marinas, pattern of boat use, and current dredging practices, long-term maintenance dredging requirements for Richardson Bay will be approximately 60,000 cubic yards per year, of which approximately 25,000 cubic yards per year are attributed to maintaining the Corps of Engineers' channel.
5. If a channel is dredged from the Corps of Engineers' turning basin to the Kappas Yacht Harbor, natural scouring of the channel would be improved if the Clipper Yacht Harbor Basin #4 is enclosed with a

bulkhead. In addition, this would probably reduce sedimentation within the Clipper Yacht Harbor Basin #4.

6. Depths in both the existing Salt Works Canal and in the natural channel to the upper end of Richardson Bay (Saucelito Canal) appear to be in equilibrium with the tidal currents so that additional shoaling is not anticipated and thus dredging would not be necessary.
7. The Corps of Engineers has permitted, on an experimental basis, the disposal of a limited amount of dredged material in Raccoon Strait, which is just outside Richardson Bay.

#### POLICIES

1. The Corps of Engineers navigation channel and turning basin, currently dredged to -28 feet MLLW, should be maintained at that depth and at current widths. If in the future the channel depth is not necessary to maintain access to the Corps' Operations Base, the channel should be maintained no shallower than -10 feet MLLW to allow navigation by fishing vessels.
2. Marina basins, navigational fairways, the Marinship Launching Basin, and navigational channels designated on Plan Map 6, Navigation Plan, to be dredged should be dredged to a minimum depth of -8 feet MLLW.
3. The Saucelito Canal should be dredged from the Corps of Engineer's turning basin to the Kappas Yacht Harbor area to a minimum depth of -8 feet MLLW.
4. The locally designated navigation channel from the Kappas Yacht Harbor to the Saucelito Canal should be dredged to a minimum depth of -8 feet MLLW.
5. The Salt Works Canal in front of the Strawberry Spit wildlife preserve area should not be dredged.
6. Dredge spoils should be disposed of either: (a) on dry land at an approved fill site; (b) in a Corps of Engineers approved spoiling site in San Francisco Bay outside Richardson Bay; or (c) at sea beyond the 100 fathom line if the dredged materials are contaminated in excess of federal Environmental Protection Agency standards.

7. The Corps of Engineers should continue to evaluate on a case-by-case basis proposals for the disposal of small amounts of dredged materials in Raccoon Strait, which is outside Richardson Bay. If dredge spoils are authorized to be discharged into Raccoon Strait, disposal should not take place during fish migration periods and spoiling should take place on the ebb tide.

## RESIDENTIAL VESSELS AND FLOATING STRUCTURES

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Within San Francisco Bay, Richardson Bay is home to the largest number of recreational boat marinas, houseboat marinas, and vessels and floating structures used for long-term residential purposes. Richardson Bay, especially the northwest Sausalito shoreline and adjacent area of Marin County jurisdiction, has accommodated residential vessels since the early 1900's. The extensive use of the water area for residential use commenced after World War II when salvaged barges and other floating structures left over from the wartime ship building activity in the Marin shipyards were converted to houseboats. In recent years the Sausalito/Marin County waterfront has witnessed an increase in the numbers, sizes, designs, and shapes of houseboats and live-aboard vessels locating in the area. Many of the vessels and floating structures are unauthorized and have anchored offshore. The number of these anchor-outs has increased in the past few years.

### FINDINGS

1. A houseboat is a structure in the water used for an extended period of time for private residential use and generally not used for recreational or active navigation use. A live-aboard is a vessel capable of active self-propelled navigation moored for an extended period of time and used continuously during that period for private residential use and used on some occasions for recreational or commercial purposes. An anchor-out is either a houseboat or live-aboard which is moored or anchored offshore rather than at a marina or shoreside facility.
2. Houseboats, live-aboards, and anchor-outs are located in Richardson Bay primarily along the northwest Sausalito shoreline and adjacent area of Marin County. Sausalito and Marin County have designated in their policy plans and zoning regulations specific marinas where houseboats are allowed. In other water areas, outside of these designated floating home marinas, long-term mooring of houseboats, live-aboards, and anchor-outs is not currently permitted except in some cases on a very limited basis.
3. All lands in Richardson Bay are subject to the public trust. Some tide and submerged lands have been granted in trust by the Legislature to Marin County, Sausalito, and Mill Valley. Other tide and submerged lands have been sold to private parties and are privately patented tidelands.
4. Private residential uses are not public trust uses and are impermissible on grant lands held in trust unless such use is necessarily incidental to the accomplishment of an authorized public trust use, serves a statewide public benefit, and is consistent with the legislative grant. The legislative grants to Marin County, Sausalito, and Mill Valley do not authorize residential use.

5. Privately patented tide and submerged lands may be used for any use as long as the use is consistent with local government and Bay Commission policies and regulations and is not inconsistent with public trust needs.
6. In regard to the public trust, the Office of the Attorney General has advised that:
  - a. A relatively small number of boats used for residential purposes might be justified in a marina located on lands legislatively granted to a local government consistent with the doctrine of the public trust if the boats were necessarily incidental to the marina use and would provide a degree of security to other boats.
  - b. On privately-patented tidelands, houseboats and live-aboards used for long-term residential purposes could be permitted, consistent with public trust principles, only if the use would not be inconsistent with public trust needs. In assessing whether houseboat or live-aboard use would be inconsistent with trust needs in a given instance, the following issues should be considered: (1) whether the use will interfere with existing public trust uses, such as public access to the Bay, navigation, commerce, fishing, scenic view corridors and wildlife habitat; (2) whether the lands are currently needed for public trust uses; (3) whether the use will interfere with future public trust uses in the area; (4) whether the subject area is relatively small in relation to the lands available for trust needs in the vicinity; (5) the period of time for which the lands will be devoted to non-trust uses; and (6) whether, by their cost and permanence, the improvements associated with the houseboats and live-aboards are such as to render difficult or impossible future devotion of the lands to trust purposes, as a practical matter.

#### POLICIES

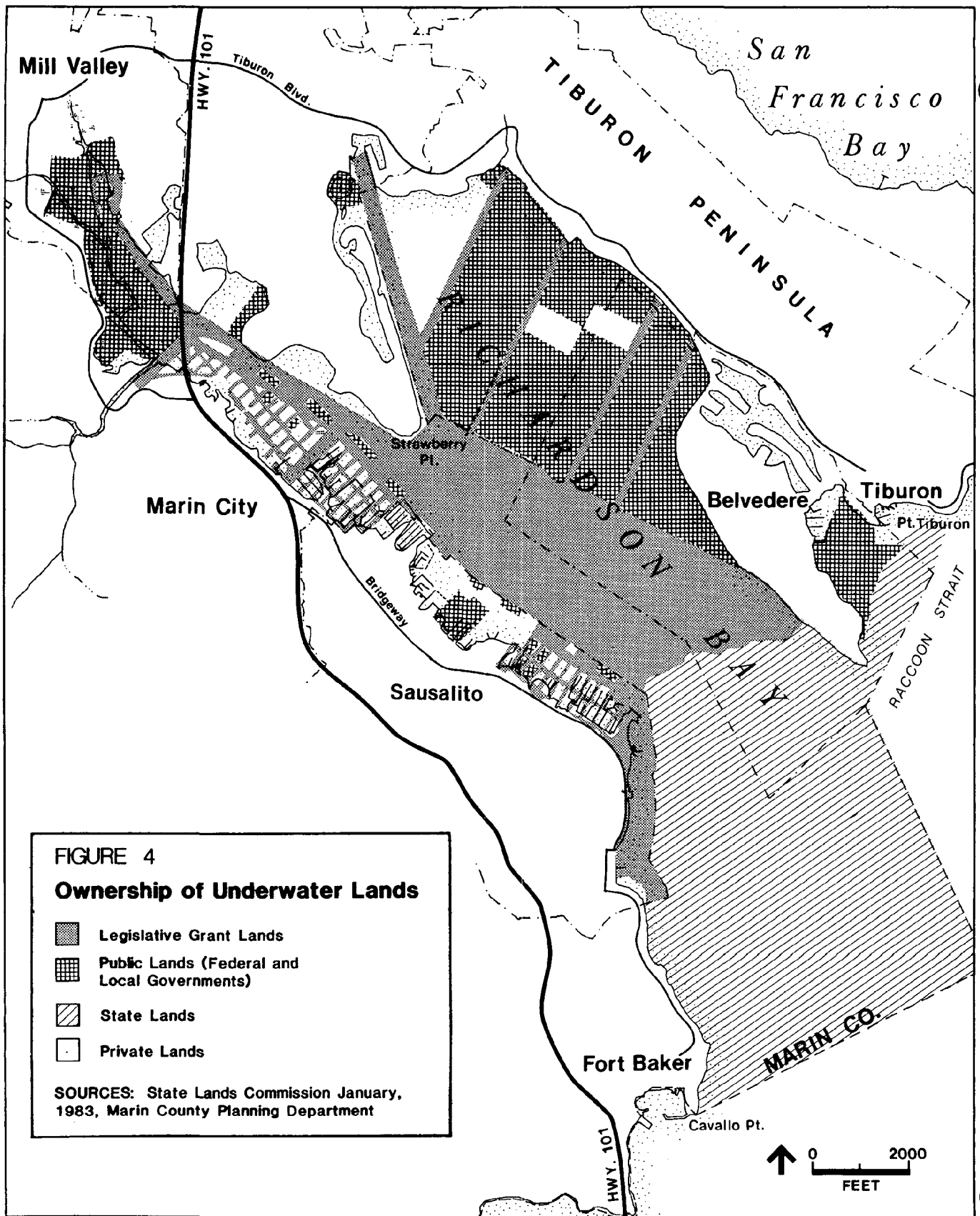
1. Vessels and floating structures used for residential purposes (i.e. houseboats and live-aboards) should be allowed only in recreational or houseboat marina berths when consistent with and in compliance with local codes. All anchor-outs should be removed from Richardson Bay.

2. Within the existing houseboat marinas, limited numbers<sup>1/</sup> of new berths should be authorized to accommodate some of the anchor-out houseboats which existed in Richardson Bay on or prior to September 30, 1983, provided the anchor-out houseboat is in compliance with the applicable local government codes, including parking requirements; Bay Commission policies; and policies of the Special Area Plan. No new houseboat marinas should be authorized.<sup>2/</sup>
3. To accommodate anchor-outs, a limited number<sup>1/</sup> of live-aboards and houseboats should be permitted in the existing and new recreational boat marinas provided: (a) they are necessarily incidental to the recreational boating use; and (b) they are in compliance with the applicable local government codes, including parking requirements; Bay Commission policies; and policies of the Special Area Plan.
4. Any vessel or floating structure used primarily for a nonwater-oriented use such as an office, commercial, or industrial use should not be permitted in Richardson Bay.

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<sup>1/</sup> The term "limited number" is intended to mean a "relatively small number" of berths, or houseboats, or live-aboards to be consistent with the Attorney General's advice. "Limited number" is a relative term and the exact number that would be authorized at each marina would be dependent on the size of the marina and the individual facilities of the marina such as parking and sanitary capabilities.

<sup>2/</sup> As proposed, the Gates Cooperative project would be an expansion of an existing houseboat marina. The Galilee Harbor Community Association, an existing residential maritime community, proposes to relocate on the Sausalito waterfront.



## PUBLIC ACCESS, VIEWS, AND VISTAS

Richardson Bay is the visual center of southern Marin County and its dominant and single most important natural resource. In few other areas of San Francisco Bay do so many people live either on or in such close proximity to the water. Richardson Bay is a prime Bay Area recreation resource offering activities ranging from sailing its protected waters and walking or bicycling its shoreline paths to dining in one of the many shoreline restaurants which offer magnificent views of the open Bay waters, passing boats, and distant wooded shoreline. Visual access to its waters and physical access to its shoreline enrich the experience of those living near or visiting Richardson Bay.

### FINDINGS

1. Public access includes visual access from inland areas to Richardson Bay and its shoreline and from the water to the inland areas.
2. The shoreline of Richardson Bay contains many uses: residential, commercial, industrial, and public park and open space. Local governments with jurisdiction over Richardson Bay: Marin County and the cities of Sausalito, Mill Valley, Tiburon, and Belvedere, and the Bay Commission require that new developments provide public access to the shoreline of the Bay. The shoreline of Richardson Bay presents an opportunity for the development of a unified public access system linking public parks and accessways along the entire shoreline.
3. Although access to and along the shoreline has increased greatly over the last few years, there is still potential for development of new access, as sites are developed or redeveloped. Local governments and the Strawberry Recreation District have contributed to improved Bay access by providing a number of parks along the waterfront and acquiring the Northwestern Pacific Railroad right-of-way along much of the western shore of Richardson Bay and constructing the Marin County bike path on it. In addition, the local governments have proposed development of additional access and recreation facilities along the waterfront. However, other demands for limited public funds will reduce funds available for the provision of shoreline access by these agencies. Additional public access to Richardson Bay is needed and this can be provided in part by the private sector as part of shoreline development and through grants, gifts, and donations from a variety of public and private sources.
4. In some areas the natural resources in Richardson Bay constrain public access. Examples include sensitive wildlife habitats, such as the harbor seal haul out area, bird rookeries, some marsh areas, and unsafe areas such as steep cliffs.

5. Sandy beaches, such as on the Schoonmaker property in Sausalito, are rare in southern Marin County, and are an important resource for public enjoyment.
6. At some sites, public access could conflict with existing uses or a proposed project. Some water-related industrial uses, such as boat construction and repair yards, might pose a hazard to members of the public unless the public area is adequately separated from the work area. If properly designed and of sufficient size, public access can usually be compatible with any use; however, the potential for conflict is greatest between the general public using access areas immediately adjacent to private residential uses. For this reason, special consideration should be given to the design of public access in residential areas.
7. Richardson Bay, Mount Tamalpais, and San Francisco serve as the major focal points of views and vistas in the Richardson Bay area. Richardson Bay is both a unifying element for the area and a physical divider of its parts. The surface of the Bay and the near, medium, and far vistas it affords offer relief from the urbanized areas and help to create a sense of psychological well-being.
8. Probably the most widely enjoyed "use" of the Bay is simply viewing it--from the shoreline, from the water, and from afar. Views of Richardson Bay also enhance property values. For example, a Bay view can add substantially to the value of a home, office, or apartment building. Also, the water is a major visitor attraction for the tourist industry.
9. Improperly sited buildings and plantings of dense vegetation often block major view corridors to the Bay.

#### POLICIES

1. A continuous unified public access system should be provided around the entire periphery of Richardson Bay.
2. Maximum feasible public access to and along the Richardson Bay shoreline should be provided as part of each shoreline or water area development consistent with the project. Such areas would include continued development of the pedestrian promenade on the Bay side of existing buildings in downtown Tiburon. The access areas should be connected to existing adjacent public access areas, public park and open space facilities, and public rights-of-way; be related to the adjacent uses; and be designed, constructed, and maintained to indicate their public nature. If there is no public access on adjacent land, but could

reasonably be expected to be provided in the future as part of a development, the public access design should provide for connection to the future adjacent access area. In cases where public access at the project site would be inconsistent because of public safety considerations or significant use conflicts, access should be provided offsite, in nearby areas.

Special consideration should be given in the design of public access areas in marinas where houseboats and live-aboards will be moored to assure that the private residential use does not interfere with the public access use of the marina shoreline.

3. Sandy beaches, such as that on the Schoonmaker property in Sausalito, should be protected for public access and use.
4. Public access areas should be landscaped and appropriate amenities such as seating, lighting, trash containers, drinking fountains, and restrooms should be provided where appropriate. These facilities should be maintained as part of the project and clear and visible signing of the public access area should be provided. Adequate public parking and access facilities for the handicapped should be provided for public use of the access area.
5. Pedestrian and bicycle paths should be separated wherever possible. Access paths for pedestrian use only should be a minimum of six feet in width, and paths designed for bicycle use only should be a minimum of ten feet in width wherever such widths are feasible. Paths designed for joint pedestrian and bicycle use should be 13 feet in width wherever possible.
6. Public access to some natural areas should be provided to permit study and enjoyment of these areas (e.g. by boardwalks on piers in or adjacent to some sloughs or marshes). However, some wildlife habitats may be sensitive to human intrusion. For this reason access in such areas should be limited and design of the access should be carefully evaluated in consultation with appropriate agencies and organizations, such as the Department of Fish and Game and the Audubon Society, to determine the appropriate location and type of access to be provided.
7. New parks and access areas should provide, where possible, for a variety of activities such as walking, bicycling, picnicking, fishing, boating, etc. Wherever possible, new projects should bring the public into contact with the water. Where feasible and desirable such facilities as small boat launching ramps and dinghy tie-ups should be provided for access from water to land.

8. New recreational boating marinas should provide facilities for guest boats and dinghy tie-ups to provide access from water to land for transient boaters. Existing marinas are encouraged to provide the same boating facilities.
9. All local, regional, and state agencies should work together to provide new public access and parks, especially to link the existing shoreline parks and public access areas to the extent feasible without additional filling in the Bay or adversely affecting natural resources.
10. In all shoreline development, the siting and height of all buildings and placement of landscaping should maintain views and vistas of Richardson Bay, Mount Tamalpais and San Francisco through the project from major roadways, vista points, and the shoreline. All development should be subject to design review processes.
11. The public should have a clear visual link between public thoroughfares and shoreline public access areas so that the public nature of shoreline access areas is clear.
12. New shoreline development should be built in clusters, leaving open space around or through the buildings to provide views of the Bay. Areas designated as view corridors within these projects should not be blocked by parked cars, high vegetation or other obstructions that restrict Bay views. Building colors and materials should complement the natural setting.
13. Publicly owned lands which provide views or vistas of the Bay, such as streets, walkways, and rights-of-way, should be designated as view corridors.
14. Plant materials for shoreline landscaping should be selected and sited to dramatize and enhance views of the water for shoreline users. The plant materials used should have demonstrated capacity to thrive with minimum maintenance under high wind speed, high atmospheric salt content, a highly saline water table, and poor subsurface soil with varying drainage capabilities. Whenever possible, native plant materials should be used.
15. Educational signing should be provided in shoreline parks and access areas to identify shoreline features and significant flora and fauna.
16. Marin County and the cities abutting Richardson Bay participating in the implementation of the Richardson Bay Special Area Plan should, as part of their current and future planning procedures, identify locations affording or potentially affording views of Richardson Bay and San

Francisco Bay and make provisions in their current and future planning and development processes to safeguard important existing and potential view corridors and vista points of the water from land and the land from the water, whenever such sites are proposed for development, redevelopment, alterations or additions. Planning departments of the County, cities, and BCDC should work jointly to identify short and long-range views and vista goals and a uniform implementation policy.

## TIDAL RESTORATION AND MARSH ENHANCEMENT

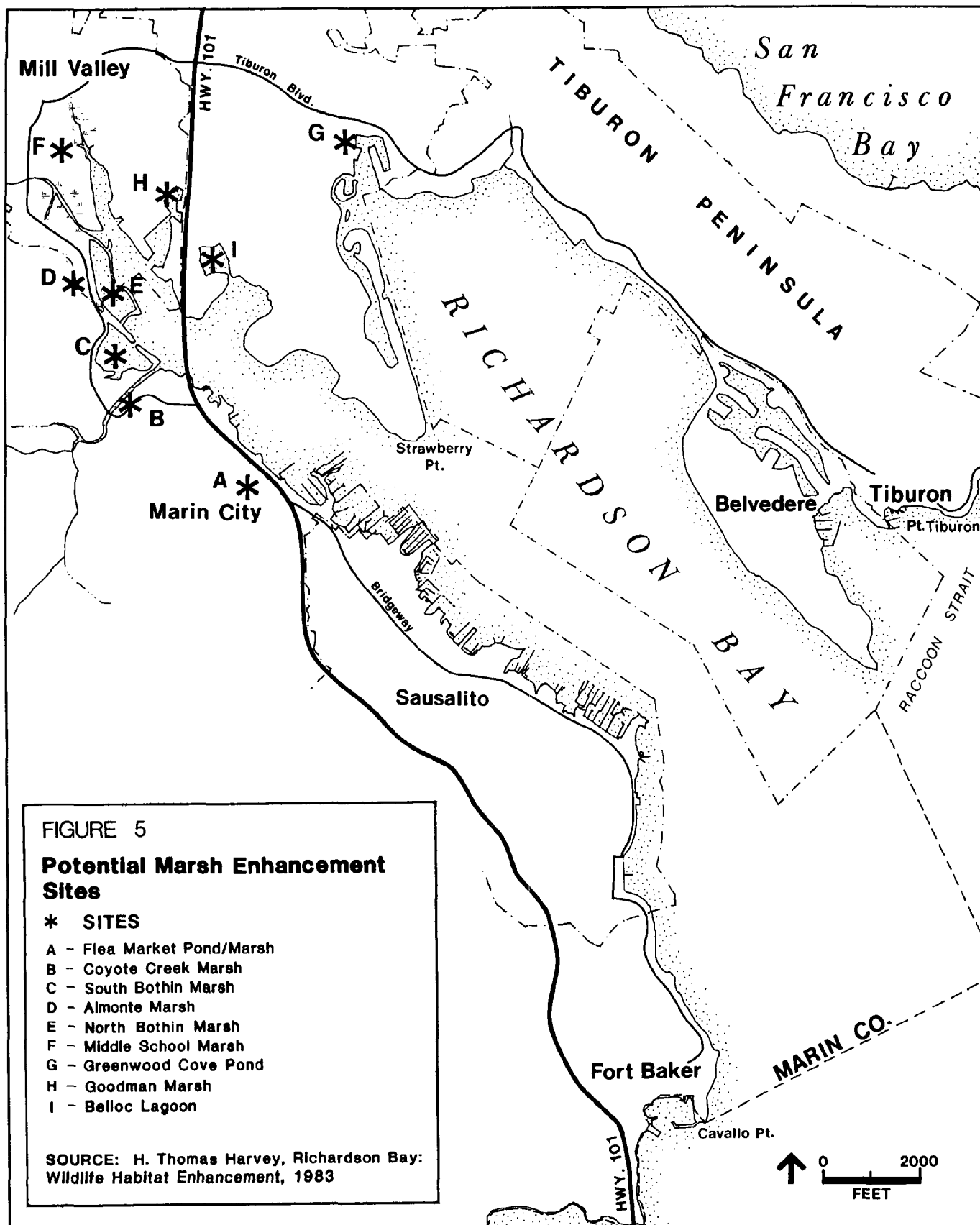
The surface area of Richardson Bay and total volume of tidal water are important factors in the health of the Bay. The interchange of oxygen at the water surface and the improvement of tidal action and water circulation increases with increased tidal surface area and volume. Recently, tidal action has been restored to former tidal areas in the upper end of Richardson Bay that were diked off from the Bay in the past. Tidal circulation and marsh restoration can be enhanced in these areas. In addition, other former tidal areas can be restored to tidal status thereby increasing water surface area and volume and improving aquatic and wildlife habitat.

### FINDINGS

1. Local government and the Bay Commission's plans and policies provide for the protection and restoration of wetlands around Richardson Bay. Diked areas in Mill Valley and Marin County have been acquired and restored by the City and the County.
2. Some improvement in tidal flushing in upper Richardson Bay would be achieved through increasing the tidal prism by restoring diked off areas to tidal action. This action may also improve scouring of the natural channel adjacent to Shelter Bay thereby improving tidal circulation in upper Richardson Bay.
3. Diked marsh areas restored to tidal status would provide improved year-round habitat for certain aquatic and wildlife species. Some existing tidal marshes, especially those recently returned to tidal action, may be enhanced through creation of additional channels or other tidal circulation improvements.
4. The Goodman Marsh, Belloc Lagoon, and Almonte Marsh have become healthy tidal marshes and important wildlife habitat in recent years because of increased tidal circulation within the marshes. The marshes were enhanced by opening the culvert under Hamilton Avenue connecting Goodman Marsh to Shelter Bay to unobstructed tidal flow, by widening and deepening the channel between Belloc Lagoon and Strawberry Cove, and by cleaning the ditch between south Bothin Marsh and Almonte Marsh.
5. Diked marsh areas that can be restored to tidal action or that have been partially restored but can be enhanced further include: (a) Flea Market Pond in Marin City; (b) Coyote Creek Marsh near Tamalpais Junction; (c) south Bothin Marsh also near Tamalpais Junction; (d) north Bothin Marsh in Mill Valley; (e) Almonte Marsh in Mill Valley; (f) Middle School Marsh in Mill Valley; and (g) Greenwood Cove Pond on the Strawberry Peninsula.

## POLICIES

1. Any tidal restoration or marsh enhancement project should be based on a detailed hydraulic, biologic, and engineering analysis and on the tidal marsh restoration guidelines prepared by the Bay Commission.  
(Recommendations for implementing restoration and enhancement programs for areas identified in Finding 5 and the following policies are contained in Part III: Carrying Out the Special Area Plan.)
2. Tidal circulation should be restored to Flea Market Pond and Greenwood Cove Pond to the extent compatible with flood protection and sediment control needs.
3. Unobstructed tidal flow should be maintained into Goodman Marsh, Belloc Lagoon, and Almonte Marsh, and into Middle School Marsh during the dry season.
4. Tidal circulation within north and south Bothin Marsh, Almonte Marsh, and Coyote Creek Marsh should be enhanced.
5. Buffer areas should be maintained around restored and enhanced wetland areas to insulate the wetlands from human intrusion and provide upland wildlife habitat, and where appropriate, be planted with native shrubs and trees such as coast live oak, toyon, and coyote brush. Exotic plants within buffer areas should be removed.



# **Part II: The Special Area Plan Maps**

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RICHARDSON BAY  
SPECIAL AREA PLAN

## THE SPECIAL AREA PLAN MAPS

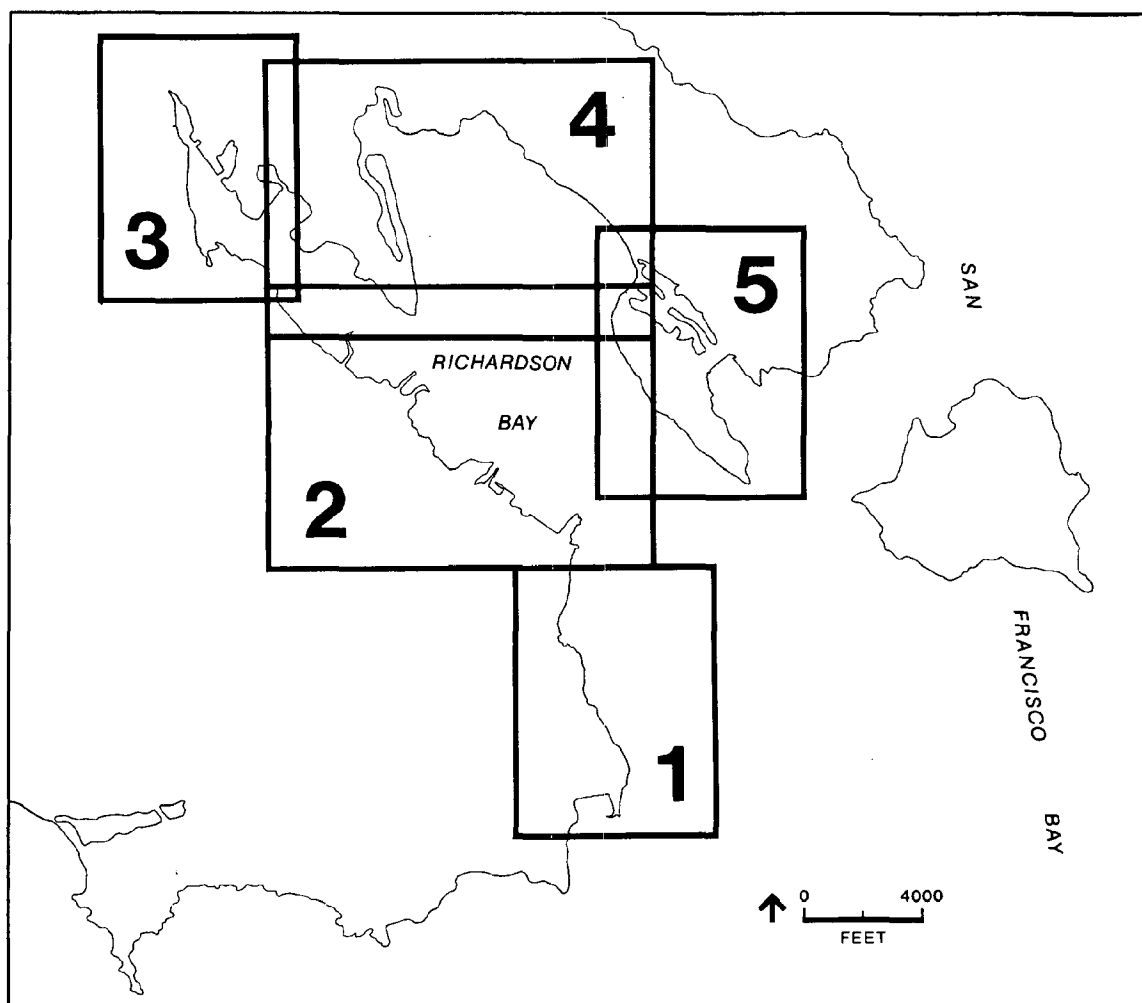
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The Special Area Plan Maps that follow are an integral part of the Richardson Bay Special Area Plan and are based on the Special Area Plan policies. Plan Maps 1 through 5 indicate the water-related uses of Richardson Bay that are consistent with protecting it as a great natural resource in trust for the needs and benefits of present and future generations. The Navigation Plan, Plan Map 6, identifies the navigation channels and areas that should be locally designated, marked, and maintained for vessel navigation.

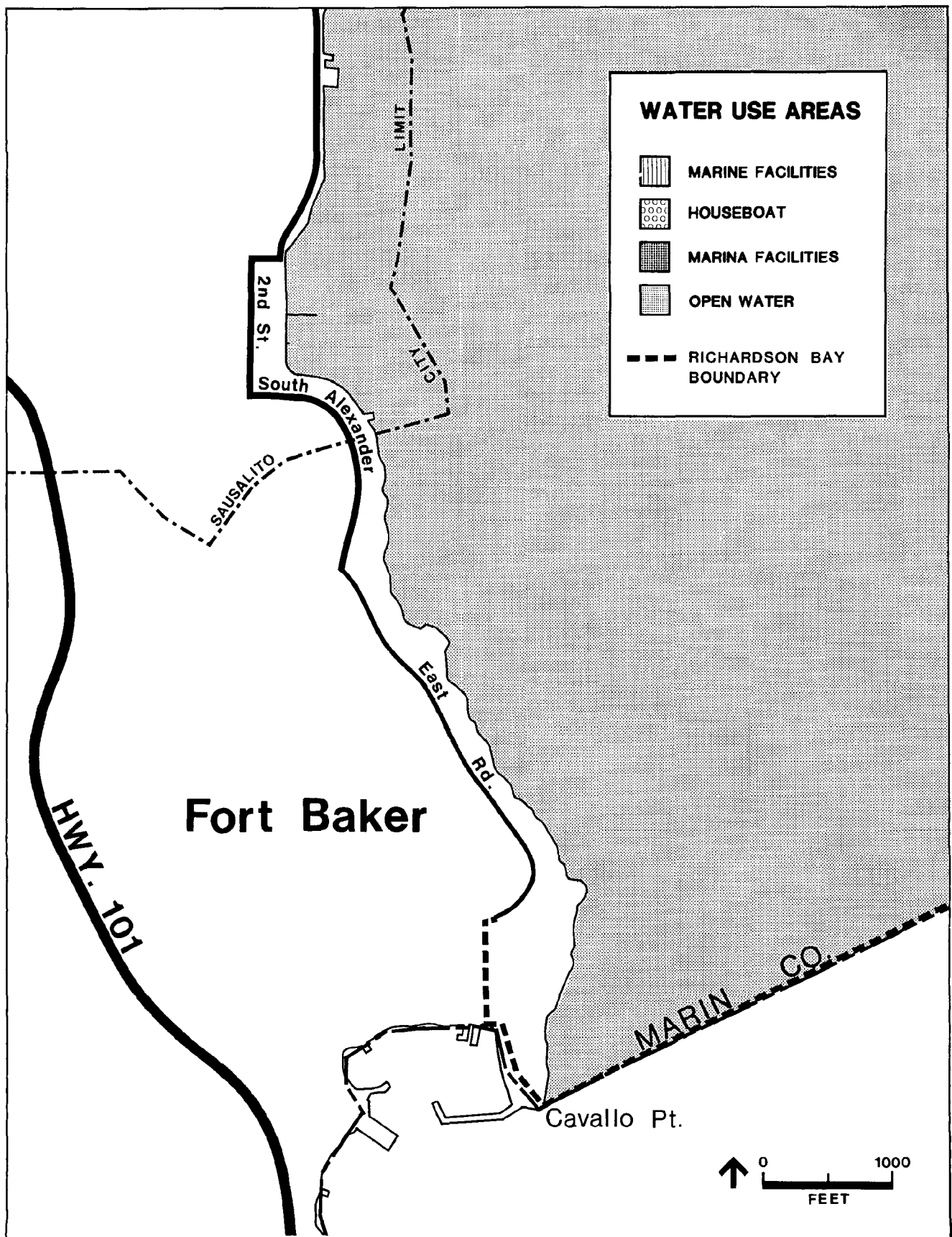
The upland areas around Richardson Bay are designated for residential, commercial, industrial, and public park and open space uses in the policy plans and regulations of local governments and in the Bay Commission's Bay Plan. These designated areas are appropriate uses of the Richardson Bay shoreline and should be continued. The uses are not indicated on the Plan Maps except in cases where existing water and land uses are closely intertwined.

The use of water areas consistent with the policies of local government, the Bay Commission, and public trust needs as indicated on the Plan Maps are as follows:

1. Open Water. The shallow tidal waters, marshes, and deeper open waters of Richardson Bay are designated to be protected as open water for aquatic and wildlife habitat; open space and nature study; low intensity water-related recreation uses such as fishing, swimming, wind-surfing, and boating activities including the following facilities for recreational cruising craft: anchorages and moorages, floats, dolphins, buoys, small boat docks and piers (where not in conflict with pierhead and bulkhead lines established by the U. S. Army Corps of Engineers), and small boat launching ramps.
2. Marina Facilities. Deeper tidal waters in areas sheltered from strong winds and storms in close proximity to navigation channels and deep water are designated to be protected for aquatic and wildlife habitat; open space; and marina, yacht club, and marina-related recreational boating use.
3. Marine Facilities. The waterfront of Sausalito is designated to continue as a "working waterfront" for such marine-oriented uses as boat building, repair, and sales; marine supply and sales; marinas and marina-related facilities; and commercial and sport fishing facilities as currently authorized.
4. Houseboats. The existing houseboat areas are designated for houseboat use for so long as the area is not needed for public trust purposes.



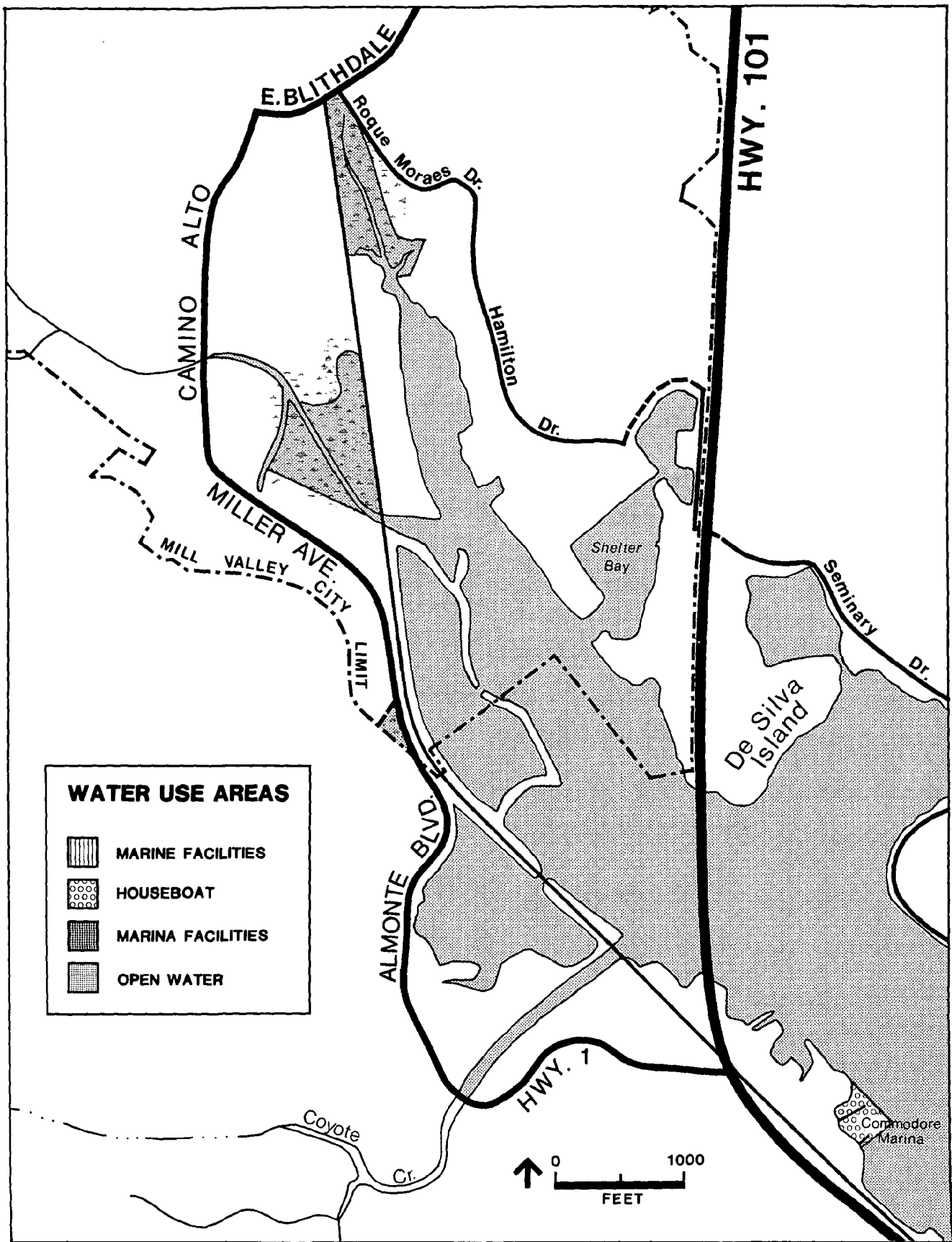
**Key to Plan Maps 1-5**



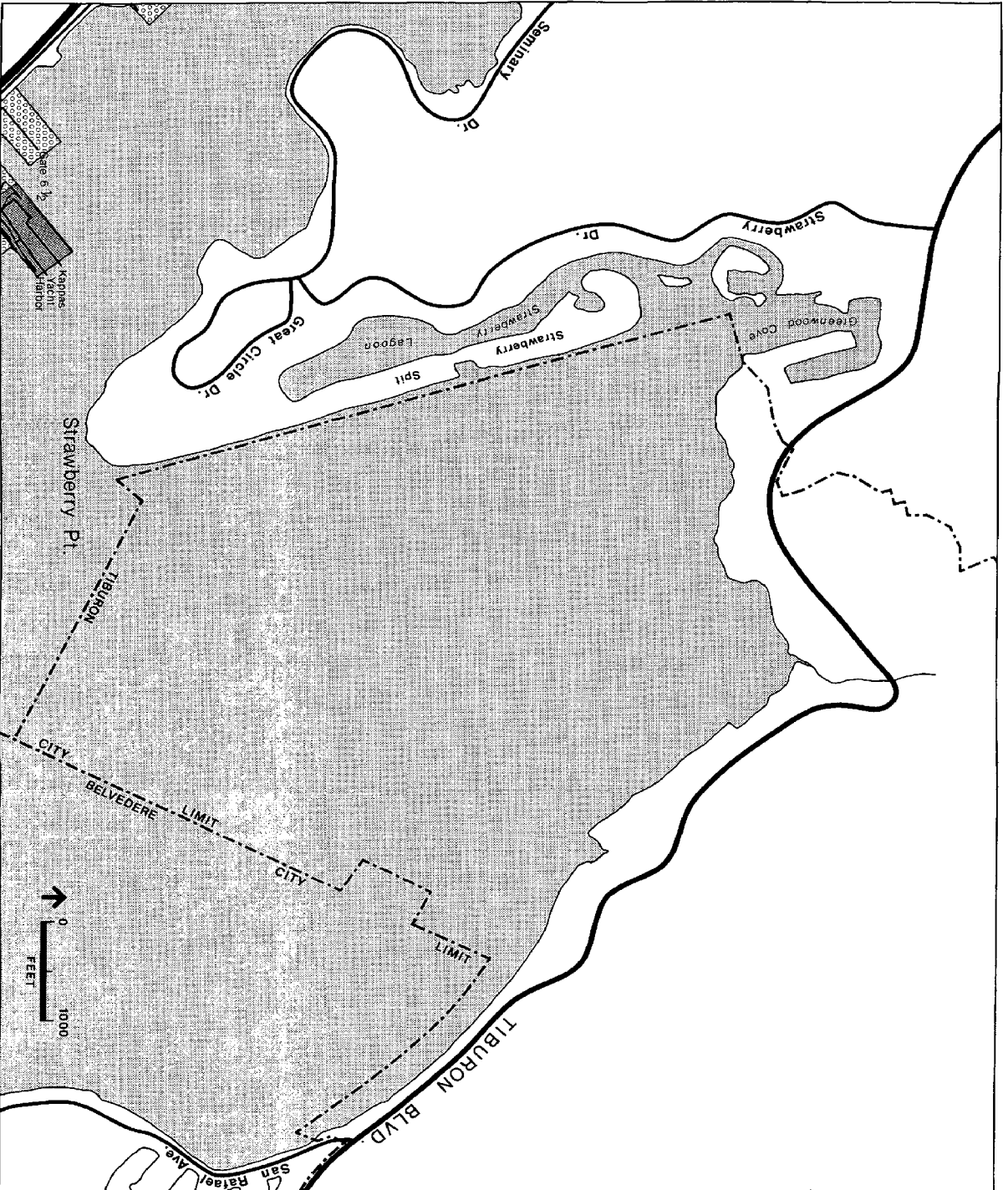
# **RICHARDSON BAY SPECIAL AREA PLAN**

**PLAN MAP 1**  
Southern Sausalito





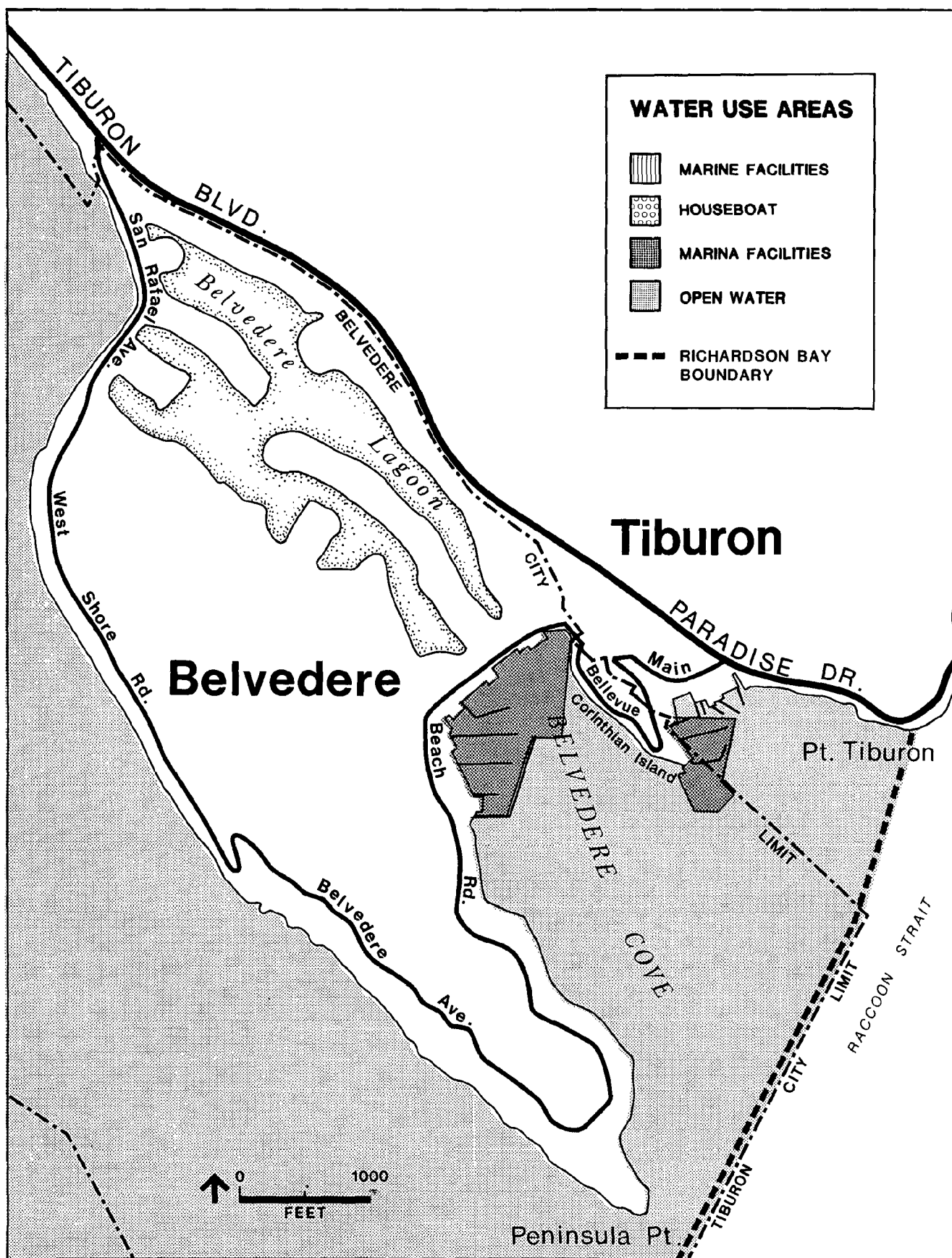
# **RICHARDSON BAY** **SPECIAL AREA PLAN**



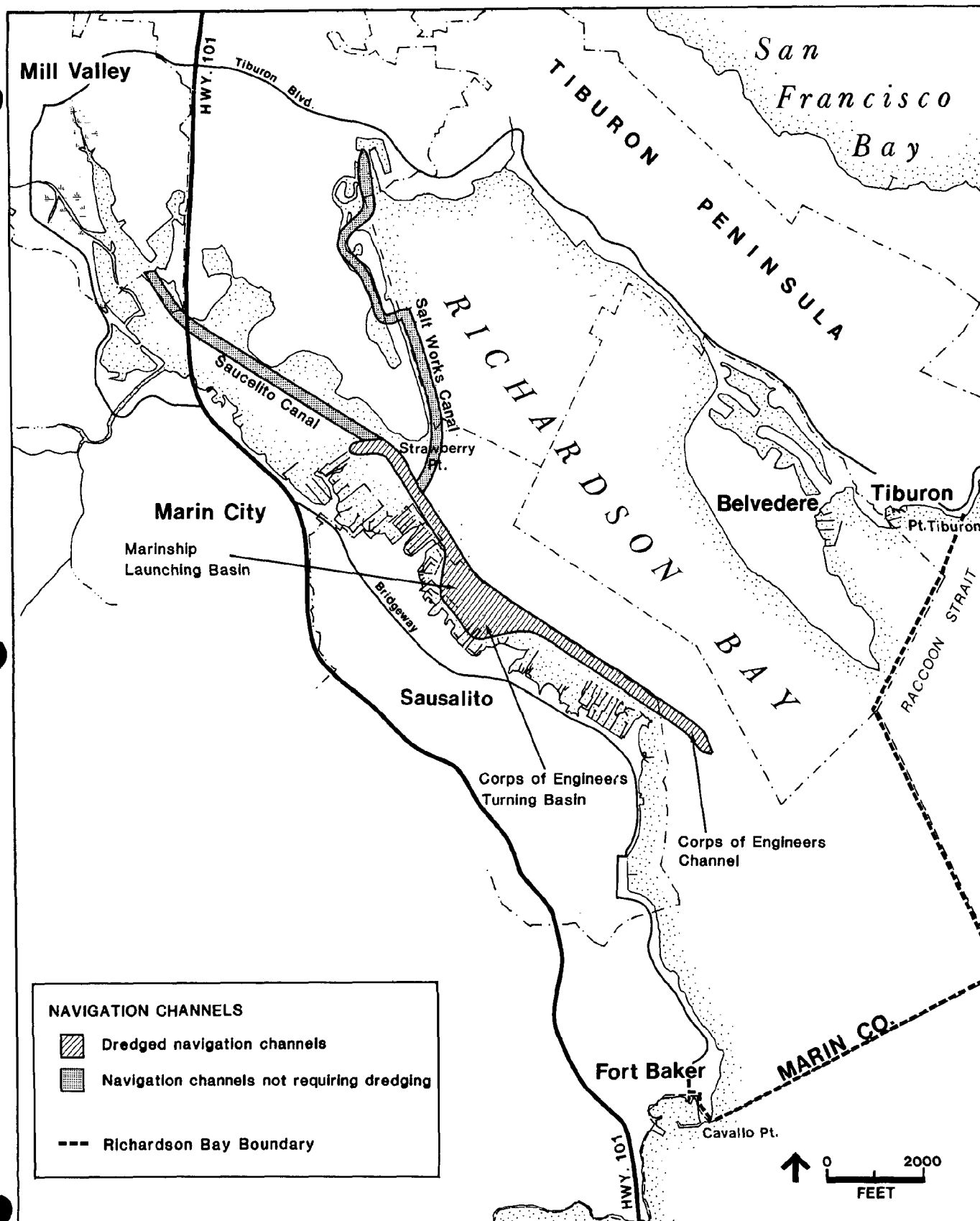
- WATER USE AREAS**
- MARINE FACILITIES
  - HOUSEBOAT
  - MARINA FACILITIES
  - OPEN WATER

**PLAN MAP 4**  
 Strawberry Peninsula and Tiburon

**RICHARDSON BAY**  
 SPECIAL AREA PLAN



# **RICHARDSON BAY SPECIAL AREA PLAN**



# **RICHARDSON BAY SPECIAL AREA PLAN**

**PLAN MAP 6**  
Navigation Plan

# **Part III: Recommendations for Carrying Out the Special Area Plan**

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**RICHARDSON BAY  
SPECIAL AREA PLAN**

## **RECOMMENDATIONS FOR CARRYING OUT THE SPECIAL AREA PLAN**

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This part of the Special Area Plan contains recommendations for carrying out the Plan. It is recommended that: (1) the local governments and the Bay Commission establish uniform policy and regulatory control for Richardson Bay by adopting the findings, policies, and map designations as elements of their policy plans; (2) all government agencies carry out their responsibilities and activities in conformity with the policies of the Special Area Plan; (3) Richardson Bay be designated by the federal Environmental Protection Agency as a vessel sewage no discharge area; and (4) the local governments jointly petition the U. S. Coast Guard to amend its Richardson Bay anchorage regulations to include the authority of local anchorage and moorage ordinances as notes to the federal anchorage regulations.

Because certain policies and recommendations of the Plan may best be implemented jointly by the local governments, such as marking and maintaining navigation channels and possible anchorage and moorage areas, it is recommended that a cooperative agreement among the local governments be executed to implement certain policies and recommendations.

### Establish Uniform Policy and Regulatory Controls for Richardson Bay

Because the wise use, conservation, and enhancement of Richardson Bay for the benefit of present and future generations are of great concern to the people of Marin County, the Bay Area, and California, it should be the policy of Marin County, Sausalito, Mill Valley, Tiburon, Belvedere, and the San Francisco Bay Conservation and Development Commission to protect, use and, where possible, restore and enhance the waters and shoreline of Richardson Bay in accord with the findings, policies, map designations, and specific recommendations of the Richardson Bay Special Area Plan.

To assure uniform application of the policies of the Plan throughout Richardson Bay, the local governments and the Bay Commission should adopt Part I. Findings and Policies and Part II. Special Area Plan Maps as amendments to each local government's general plan and applicable regulatory controls and the Bay Commission's San Francisco Bay Plan.

### Relation of Local Government Plans and Regulations to the Richardson Bay Special Area Plan

The Richardson Bay Special Area Plan is intended to be an area plan for Richardson Bay as such plans are provided for in Government Code Section 65600 et seq. The policies and map designations of the Special Area Plan are a further specification of each local government's general plan policies and land and water use designations applicable to the unique characteristics of Richardson Bay. As part of the general plan process, the Special Area Plan

would become an amendment to each local government's general plan, like any other plan amendment, and would be internally consistent with the general plan.

Because the Special Area Plan is consistent with almost all uses in each local government's zoning regulations and is a further specification of the particular authorized and permitted uses allowed within the zoning districts, no change to local government zoning regulation is necessary, except where noted in the section Recommendations of Agency Amendments to Policy Plans and Regulation.

#### Relation of the San Francisco Bay Plan and the Richardson Bay Special Area Plan

The Richardson Bay Special Area Plan is intended to be a more specific application of the general regional policies of the San Francisco Bay Plan and a supplement to those policies because of the unique characteristics of Richardson Bay. Therefore, the policies and map designations of both the Bay Plan and the Richardson Bay Special Area Plan would apply to Richardson Bay except where the two may conflict. In that case, the more specific policies and designations of the Richardson Bay Special Area Plan would control. The policies of the Richardson Bay Special Area Plan are consistent with the provisions of the McAteer-Petris Act (Government Code Section 66600 through Section 66660) and no changes to the Act would be necessary. The policies and map designations of the Special Area Plan are intended to identify public trust needs in Richardson Bay.

#### Recommendations for Agency Amendments to Policy Plans and Regulations

In order to have a uniform set of planning policies and regulatory controls by the local governments and the Bay Commission over Richardson Bay and its shoreline, specific actions to amend the agencies' policy plans and regulations are recommended. Local governments would adopt the Richardson Bay Special Area Plan according to the normal procedures specified by California planning law for adopting an element of the general plan. Each local government planning commission would hold at least one public hearing before it would take action on the Special Area Plan. Each city council and the Marin County Board of Supervisors would likewise hold a public hearing on the Special Area Plan before taking final action. The Bay Commission would hold at least one public hearing on the Special Area Plan before it can take final action on the Plan. Adequate public notice of the hearings, as prescribed by State planning law and BCDC's regulations, must be given.

Where zoning regulation changes are recommended to implement the policies and land use designations of the Special Area Plan, the local government planning commission would also hold a public hearing on the proposed zoning changes

before taking final action and sending a recommendation to the city council or Board of Supervisors. Similarly, the Council or Board, after public notice, would hold a hearing on the proposed zoning changes prior to taking action on the planning commission's recommendation.

The specific actions each local government and the Bay Commission should take are outlined below:

1. Sausalito

- Adopt the Part I. Findings and Policies and Part II. Special Area Plan Maps germane to Sausalito as an element of the Sausalito General Plan.

2. Mill Valley

- Adopt the Part I. Findings and Policies and Part II. Special Area Plan Maps germane to Mill Valley as an element of the Mill Valley General Plan.
- Change the existing Commercial Recreation District zoning for the property at the upper end of Richardson Bay that is tidal water and marsh to an Open Area District zone.

3. Tiburon

- Adopt the Part I. Findings and Policies and Part II. Special Area Plan Maps germane to Tiburon as an element of the Tiburon General Plan.

4. Belvedere

- Adopt the Part I. Findings and Policies and Part II. Special Area Plan Maps germane to Belvedere as an element of the Belvedere General Plan.

5. Marin County

- Adopt the Part I. Findings and Policies and Part II. Special Area Plan Maps germane to Marin County as an element of the Marin Countywide Plan.
- Change the existing Limited Agricultural District zoning to Open Area District zone and combine with the Bayfront Conservation District zone to the extent possible.

- Change the existing Resort and Commercial Recreation District zoning that is solely in the water area to Open Area District zone and combine with the Bayfront Conservation District zone to the extent possible.
- Change the Resort and Commercial Recreation District zoning at Waldo Point Harbor, Yellow Ferry Harbor, and Commodore Marina to Floating Home Marina District zoning.

6. San Francisco Bay Conservation and Development Commission

- Adopt Part I. Findings and Policies and Part II. Special Area Plan Maps as an amendment to the San Francisco Bay Plan. Add a note referring to the authority of the Special Area Plan to Bay Plan Map No. 11. Amend the notes to Bay Plan Map No. 11 to reflect the policies and provisions of the Special Area Plan.
- Amend the BCDC federally approved Management Plan for San Francisco Bay to reflect adoption of the Special Area Plan.

Amending the Special Area Plan

The Special Area Plan would amend local governments' general plans and the Bay Commission's Bay Plan. Each agency may amend its policy plan under the provisions set out in State law. Authorization from any of the participating agencies would not be necessary for one agency to amend its general plan or the Bay Plan. But proposed amendments should be referred to each of the participating agencies for review and comment prior to the public hearing and adoption.

As with all plans, the Special Area Plan should be regularly monitored and reviewed. A formal procedure evaluating the plan and determining the need for amendment to reflect changes and new information should be established. This review should take place on an annual basis and at the staff level could be carried out through the Marin City and County Planning Directors' Association and at the council member and supervisor level through the Marin Countywide Plan Advisory Committee.

In regard to Special Area Plan amendments, it must be remembered that development in Richardson Bay and within 100 feet of the shoreline requires authorization from both the local government and the Bay Commission. Thus, to receive necessary authorization a development would need to be consistent with the Special Area Plan amended local government general plan, and the amended Bay Plan. A development that would be inconsistent with both the local general plan and the Bay Plan would require a favorable amendment to both policy plans before the development could be authorized.

Require the Actions of All the Governmental Agencies in Richardson Bay to be Consistent with the Richardson Bay Special Area Plan

Local, state, and federal agencies with jurisdiction and activities within Richardson Bay should carry out their responsibilities and activities in conformity with the policies of the Richardson Bay Special Area Plan. Because Richardson Bay is part of the BCDC segment of the California Coastal Zone, federal agencies should, upon federal certification of the BCDC adopted Special Area Plan as an amendment to the Bay Commission's Management Program for San Francisco Bay, comply with the provisions of the Special Area Plan pursuant to the requirements of the federal Coastal Zone Management Act of 1972, as amended.

Enforcement of the Provisions of the Special Area Plan

Enforcement of the Special Area Plan should primarily be undertaken by local government. Enforcement of all local matters should be carried out by local governments pursuant to their enforceable plans, policies, and regulations. Local governments should adopt new ordinances and enforcement mechanisms when necessary to carry out the policies of the Special Area Plan. If a cooperative agreement among the local governments is developed as recommended in this Plan, the specific enforcement powers to be carried out under the agreement should be spelled out in the agreement. The BCDC should enforce those matters over which it has authority in Richardson Bay and which cannot be enforced by local government or by a cooperative agreement of the local governments.

Designation of Richardson Bay As No Discharge Area

Richardson Bay should be designated by the federal Environmental Protection Agency (EPA) as a no discharge area in which the discharge of sewage from vessels is prohibited. In order to establish such a no discharge area, federal law requires that it be shown by the State that adequate facilities for the safe and sanitary removal and treatment of sewage from all vessels are reasonably available.

The procedure to follow to secure an EPA no discharge area designation would be to prepare a written request to the San Francisco Bay Regional Water Quality Control Board asking the Board to prepare an application to the EPA for the no discharge area designation. The request should include all the information the Regional Board would need to certify that the protection and enhancement of the waters of Richardson Bay require greater environmental protection than afforded by the applicable federal standards. The information should include:

- A map showing the location of commercial and recreational pumpout facilities;

- A description of the location of pumpout facilities.
- The general schedule of operating hours of the pumpout facilities;
- The draught requirements on vessels that may be excluded because of insufficient water depth adjacent to the facilities;
- Information indicating that management of wastes from such pumpout facilities is in conformance with federal law; and
- Information on vessel population and vessel usage of Richardson Bay.

The Regional Board would conduct a public hearing on the proposed no discharge designation and by a resolution of the Board request EPA to declare Richardson Bay a no discharge area. The Regional Board's application would be transmitted to the State Water Resources Control Board for approval and the application would be submitted to EPA by the State Board. The EPA Administrator would make a determination of whether to establish a Richardson Bay no discharge area within 90 days of receiving the application.

#### Establishing Locally Designated Anchorages and Moorages in Richardson Bay

The local governments should jointly petition the District Commander of U. S. Coast Guard District 12 to change the Coast Guard regulations governing Anchorage No. 3, General Anchorage, and Anchorage No. 2, Special Anchorage, to either: (a) include local anchorage and moorage ordinances as notes to the Coast Guard anchorage regulations; or (b) establish Anchorage No. 3 and Anchorage No. 2 as non-anchorage areas except when in conformity with applicable ordinances and regulations of the local governments. In establishing the local ordinances and regulations and/or non-anchorage designations, anchoring of vessels within the boundaries of the Audubon Society's Richardson Bay Wildlife Sanctuary should be prohibited during the period October 1 to April 1 of each year.

#### Marsh Restoration and Enhancement Programs

Following are recommendations for restoring, enhancing, and maintaining tidal circulation and wildlife habitat at Flea Market Pond, Coyote Creek Marsh, north and south Bothin Marsh, Almonte Marsh, Middle School Marsh, Belloc Lagoon, and Goodman Marsh:

1. Flea Market and Greenwood Cove Ponds. Flea Market and Greenwood Cove Ponds should be restored to tidal action. To the extent compatible with flood protection and sediment control needs, the Flea Market Pond tide

gate at Highway 101 should be removed to permit unobstructed tidal flow into the pond and the marsh area on the perimeter of the pond should be increased by excavating back and decreasing the steepness of the pond bank. A wider channel connecting Greenwood Cove Pond to the Salt Works Canal should be constructed to facilitate tidal flow into the Pond. A buffer area around each pond at least 40 feet wide and planted with appropriate native shrub and tree species such as coast live oak, toyon, and coyote brush should be established.

2. Coyote Creek Marsh. Tidal flow and circulation into Coyote Creek Marsh should be improved by increasing the size and number of the small drain culverts under the bike path along Coyote Creek that connect the Marsh with the Creek.
3. South Bothin Marsh. A buffer at least 40 feet wide should be established around south Bothin Marsh and planted with appropriate native shrubs and trees such as coast live oak, toyon, and coyote brush.
4. North Bothin Marsh. Tidal circulation in north Bothin Marsh should be improved by excavating a channel from east to west through the southern end of the east levee. A culvert connecting the northwestern arm of south Bothin Marsh to north Bothin Marsh would further enhance tidal circulation in both marshes. Appropriate native shrubs and trees, such as coast live oak, toyon, and coyote brush, should be planted around the perimeter of the marsh including the former levees.
5. Almonte Marsh. The ditch that transports tidal water to Almonte Marsh should be kept clean and open to permit maximum tidal flow and upland water drainage. A buffer area on the Tamalpais High School side of the Marsh at least 20 feet wide should be established and planted with appropriate native shrubs and trees to screen the habitat from any upland development and provide food and shelter for wildlife.
6. Middle School Marsh. Unobstructed tidal flow into the Middle School Marsh should be maintained during the dry season when the Marsh is not needed for flood control purposes.
7. Goodman Marsh and Belloc Lagoon. Unobstructed tidal flow should be maintained into Goodman Marsh and Belloc Lagoon. The culvert connecting Goodman Marsh to Shelter Bay should be kept clear of obstructions and the channel connecting Belloc Lagoon to Strawberry Cove should be maintained at its existing width and depth. A buffer area at least 40 feet wide should be maintained around Belloc Lagoon and planted with native trees and shrubs such as coast live oak, toyon, and coyote brush.

#### De Silva Island Archaeological Site

A major California shell mound once inhabited by ancient Bay Area residents exists on de Silva Island and is identified in state records as Mrn-17. This archaeological site is a cultural and natural resource that should be protected for scientific study. If and when development of de Silva Island is authorized by Marin County, the County should provide, as a development condition, that sufficient protection of the archaeological site is provided.

#### Map of View Corridors and Vista Points

A map showing important existing and potential view corridors and vista points should be prepared jointly by the local governments and the Bay Commission and be included as a future Plan amendment in the map section of the Special Area Plan.

#### Formation of a Cooperative Agreement

An effective method of implementing many of the policies and recommendations of the Special Area Plan that could be more efficiently carried out jointly by the local governments would be through the development of a cooperative agreement among Marin County, Sausalito, Mill Valley, Tiburon, and Belvedere. The agreement could identify local interests and government functions and services in Richardson Bay that could best be carried out jointly at the local level thereby achieving economies in administration and services. The agreement could provide for the pooling of local government resources and experience in an orchestrated effort to implement those policies and recommendations of the Special Area Plan common and mutually acceptable to each local government.

The agreement could provide for the following services:

- Establishment, administration, and enforcement of the Navigation Plan, including the removal of debris and other obstructions to navigation; the installation of navigational aids; and the regulation of anchor-outs;
- Provision of water-based police, fire, rescue, and similar public safety services on and from water rather than land;
- Planning, administering, and supervising dredging activities;
- Providing and maintaining vessel sewage pumpout facilities;

- The administration and enforcement of a vessel sewage no discharge area;
- Coordination of tidal restoration and marsh enhancement projects;
- Coordination of grant requests;
- Advocacy of state and federal tax legislation to benefit boat, marina, and yacht club owners in Richardson Bay who install and operate vessel sewage and graywater treatment facilities in compliance with a Richardson Bay vessel sewage no discharge standard; and
- Establishment of an anchorage and moorage area to serve transient vessels.

The agreement should not include authority over the normal local government land use planning and regulatory controls, such as zoning and use permits, but could include administration of a permit system for controlling use of anchorage and moorage areas.

Boaters that wished to tie up to a mooring facility or anchor in the anchorage area administered under the terms of the agreement would secure a permit which identified the mooring or anchoring conditions, including length of stay.

The agreement could also include provisions for the authority to issue cease and desist orders and civil penalties for violation of those orders.

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