
2 PROJECT DESCRIPTION

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The “project” being evaluated under this programmatic Environmental Impact Report (EIR) is implementation of the draft Water Trail Plan (WT Plan or Plan). This chapter describes the project background, presents information on existing non-motorized small boat (NMSB) use in and NMSB access to San Francisco Bay (SF Bay or Bay), describes the anticipated growth in NMSB use, and describes the WT Plan itself, including locations, potential site enhancements, and how the Water Trail (WT) would be implemented and operated.

2.1 Water Trail Overview

The goal of the San Francisco Bay Area Water Trail is to preserve, promote, and plan for safe and environmentally sound NMSB access to the waters of San Francisco Bay, both for recreational enjoyment and increased stewardship of the Bay’s unique resources.

2.1.1 THE WATER TRAIL ACT

The California legislature established the WT by enacting the Water Trail Act (AB 1296, Appendix A) in September 2005. The WT is intended to improve access to, within, and around the Bay, coast, ridgetops and urban open spaces; and to advance the San Francisco Bay Conservation and Development Commission’s (BCDC’s) mandate to foster public access and recreational use of the Bay. Improved access, as described in the WT Act, includes linking existing and future NMSB access locations around the Bay and providing diverse water-accessible overnight accommodations, including camping, to the extent feasible. The legislation also states that the WT shall be developed in a manner that will:

- Respect the rights of private property owners
- Consider navigational safety and homeland security concerns in siting access locations and overnight accommodations
- Minimize adverse effects on agricultural operations, and
- Protect endangered and threatened species, and species of special concern

The goals and priorities listed in the WT Act create a multi-faceted mission for the WT. While the WT Act is intended to enhance the non-motorized small boating experience in San Francisco Bay, it is not specifically designed to increase NMSB use as a goal in and of itself. Nonetheless, some growth in NMSB use may result from some of the actions taken to achieve the goals of the WT Act. More central to the intent of the WT Act is the goal of preserving and increasing opportunities for and education about safe and responsible, including environmentally-responsible, water-oriented recreation. Recreation benefits the public welfare, and education leads to more responsible boating practices, ultimately benefitting Bay resources. Furthermore, implementation of the WT may provide localized economic benefits.

The WT Act directs BCDC, in coordination with other agencies and organizations, to conduct a public process to develop the WT Plan. The WT Act directs the Conservancy to lead the funding and development of projects implementing the Plan, but does not provide any guaranteed sources of funding.

The WT Act does not provide any regulatory powers to the Conservancy or any new regulatory powers to any other agency potentially involved with the WT. Nonetheless, it directs the Conservancy to evaluate the suitability of various areas for NMSB access: “In developing the plan and undertaking projects to implement the plan, areas for which access is to be managed or prohibited shall be determined in consultation with resource protection agencies, the United States Coast Guard, the Water Transit Authority [later renamed the Water Emergency Transportation Authority], the State Lands Commission, local law enforcement agencies, and through the environmental review process required by the California Environmental Quality Act (Division 13 (commencing with Section 21000)).” This evaluation process is integrated into the WT Plan implementation process described in Section 2.4, and into the WT Plan strategies described in Section 2.3.3.

2.1.2 WATER TRAIL PURPOSE AND NEED

San Francisco Bay and its tidally-influenced tributaries comprise the largest open space in the nine-county Bay Area. As growth in the region creates additional pressures on existing open spaces, recreational opportunities within the Bay and its tributaries become increasingly important. NMSB use in SF Bay is a popular form of recreation. An extensive survey of NMSB use in California, entitled *Non-Motorized Boating in California*, was performed by the California Department of Boating and Waterways (Cal Boating) in 2006 – 2007 (Cal Boating 2009). The survey indicates that in 2006, there were an estimated 372,233 individuals in the Bay Area participating in NMSB use of all kinds, and that statewide NMSB use is expected to increase at a rate greater than population growth.¹

The survey provides information regarding the specific needs of NMSB users, and supports the priorities identified in the WT Act. For example, of the 15 facility needs assessed in the Cal Boating survey, improved access was rated as the highest need for NMSB users in San Francisco Bay, followed by parking. Improved parking security and overnight parking to allow for multi-day trips were key points of concern. Lack of access was the main reason that users avoided areas throughout San Francisco Bay (Cal Boating 2009).

Other considerations that support the need for the WT include the following:

- Natural deterioration and a lack of funding to pay for repairs may lead to the loss of existing NMSB access locations over time. This is exemplified by the recent loss, possibly only temporary, of several access sites in Marin County, such as Higgins Dock in the Town of Corte Madera. Without an overarching program, such as the WT, to help find funding to replace or improve deteriorating sites, additional access sites may be lost.
- NMSB access to the Bay is currently provided on a site-by-site basis by a variety of site owners and operators. The competing pressures of increased NMSB use and increased development in the Bay Area require a planned and coordinated approach to NMSB access and use in the Bay. For example, there is no overall effort to ensure that access sites are provided at optimal locations in terms of boater safety, environmental protection, or distance between sites.

¹ The statewide growth numbers are not broken down by region.

- Although there are some NMSB safety programs provided by Cal Boating, the US Coast Guard Auxiliary, vendors, and various boating clubs and organizations, there is a lack of safety training for novice and non-local boaters (BCDC 2006b).
- Potential environmental effects of non-motorized boating activities are addressed through education and outreach efforts by some of the boating clubs and organizations around the Bay (CCP 2008). Additionally, permit requirements imposed during construction of access facilities and implementation of state and federal environmental regulations address potential environmental effects. However, these regulations and requirements are implemented on a project basis and are thus limited in their overall scope and ability to address Bay-wide concerns.
- There are currently no universally accepted design guidelines for non-motorized small boating facilities that address the shoreline topography of San Francisco Bay.² Instead, development of facilities is completed on an *ad hoc* basis by individual site owners and managers.
- Centralized information regarding the locations of existing sites, their facilities, and any safety and environmental considerations associated with them is lacking. The cumulative environmental and safety impacts of the many existing and planned sites have not been evaluated on a regional basis.

In response to these needs, the WT would:

- Help preserve existing access locations and work with local jurisdictions to advocate for inclusion of NMSB access in waterfront planning.
- Work directly with site owners to keep as many of the existing sites as possible available in the future.
- Provide outreach, and funding as available, to support the preservation of existing sites.
- Encourage site owners to make their sites accessible, and serve as a resource for compliance with the pending Americans with Disabilities Act-Architectural Barriers Act (ADA-ABA) Accessibility Guidelines.
- Perform outreach to actively inform the residents of the Bay Area and interested visitors about the many opportunities for non-motorized small boating in the Bay. This outreach would include information about concessionaires that provide boating instruction, places to stay and eat/drink, the environmental sensitivity of various sites, safety considerations, and opportunities for adding new sites.
- Help coordinate, expand, and enhance existing educational efforts on boating safety, navigational safety, and avoiding impacts to wildlife and sensitive habitat to provide more comprehensive education to all NMSB users. An additional goal of the education program would be to foster stewardship of the Bay's resources through an increased appreciation of these resources.
- Strive to help minimize conflicts between different user groups at the same waterfront location.

² While the National Park Service has an excellent set of design guidelines for NMSB launches, more specific guidelines are needed to address the challenges of the Bay shoreline.

The improved planning and coordination, and more extensive education and outreach provided by the WT may also offset some of the effects of increased NMSB use expected to occur due to population growth (i.e., non-WT-induced growth). Increased publicity and specific site enhancements may lead to localized economic benefits for waterfront or water-oriented businesses.

2.1.3 WATER TRAIL PLAN DEVELOPMENT

Consistent with the WT Act, BCDC convened a 13-member WT Steering Committee to develop the Water Trail Plan (BCDC 2007b). The Committee was drawn from five primary interest categories: NMSB groups in the Bay Area; shoreline resource planners, managers, and owners; Bay Area navigational safety and security groups; wildlife and environmental protection interests; and, environmental education and stewardship interests.

The core of the Steering Committee's work occurred in seven public planning meetings that were held from February 2006 through March 2007. In these meetings, the Steering Committee and members of the public discussed and provided recommendations on NMSB access, trail-related wildlife and habitat issues, safety and education, the organizational structure for the WT, and trailhead designation. All background reports, meeting notes, and the final draft Plan itself are posted on BCDC's website at www.bcdc.ca.gov. The WT Plan may also be reviewed in its entirety on the Conservancy's website at www.scc.ca.gov.

The extensive stakeholder involvement in the development of the WT Plan is complemented by the public outreach being implemented as part of the environmental review process (described in Section 1.4).

2.1.4 WATER TRAIL LOCATION

The primary project area for the WT is defined in the WT Act authorizing legislation as the area within BCDC's jurisdiction defined in Section 66610 of the Public Resources Code, and the area described in Section 29101 of the Public Resources Code (i.e., primary and secondary management areas of Suisun Marsh as shown on the Suisun Marsh Protection Plan Map). The primary project area can be summarized as follows (BCDC 2007a):

- The open water, marshes and mudflats of greater San Francisco Bay, including Suisun, San Pablo, Honker, Richardson, San Rafael, San Leandro and Grizzly Bays and the Carquinez Strait
- The first 100 feet inland from the shoreline³ around San Francisco Bay
- The portion of the Suisun Marsh-including levees, waterways, marshes and grasslands-below the ten-foot contour line
- Portions of most creeks, rivers, sloughs and other tributaries that flow into San Francisco Bay, and
- Salt ponds, duck hunting preserves, game refuges and other managed wetlands that have been diked off from San Francisco Bay

³ The shoreline is defined as being located at 5 feet above mean sea level.

Nine counties have shoreline along San Francisco Bay: Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma.

Within the primary project area, the WT Plan identifies 112 potential trailhead locations, as shown on Figures 2.1.4-1A and 2.1.4-1B and discussed in more detail in Section 2.3.2, below. Potential WT sites are located in all nine Bay Area counties. Additional trailheads in the primary project area may be identified in the future.

2.1.5 SURROUNDING LAND USE

Potential WT trailheads are located in a variety of settings, ranging from highly developed, to less developed, to natural areas. These sites are a subset of the launch and destination sites that currently exist around the Bay.

Highly developed areas include commercial, industrial, or residential complexes. There are three major airports (San Francisco, Oakland, and San Jose International) and several smaller ones along the shore of the Bay (including those in Hayward, San Carlos, Novato, Napa, and Palo Alto). Major ports include Oakland, San Francisco, Richmond, Petaluma, Benicia, and Redwood City. Major refineries and heavy industrial complexes include those on the shorelines of the Carquinez Strait, southeastern portions of San Pablo Bay, and South San Francisco Bay. There are also multiple wastewater treatment plants that discharge treated effluent to the Bay. Development near the Bay's edge also includes clusters of commercial buildings and urban, suburban, and semi-rural residences in many locations.

Less developed and relatively more natural areas around the Bay include federal wildlife refuges; local, regional, state, and federal parks, reserves, wildlife areas, and recreation areas; former landfill sites; portions of former military bases undergoing conversion to non-military uses; private undeveloped lands; and agricultural lands (primarily in the North Bay). In addition, salt pond complexes around the perimeter of South San Francisco Bay and Redwood City and along the Napa River are mostly undeveloped and provide important habitat for birds.

2.2 Non-Motorized Small Boating in the Bay Area

Non-motorized small boat use in the Bay Area occurs against a backdrop of other extensive and varied boating activity, as well as regulatory and environmental factors. Non-motorized boating participants use a wide variety of watercraft in a wide range of settings.

2.2.1 BOATING IN THE SAN FRANCISCO ESTUARY

The San Francisco Estuary is a complex boating environment. Extensive recreational boating and commercial shipping activities occur in the Bay. These activities are regulated and managed by a wide range of organizations, including federal, state and local governments; parks and recreation districts; regulatory agencies; ports; and public and private marinas, among others. Commercial ships using the Bay include container vessels, tankers, oil barges, cruise ships, ferries, fishing vessels, and service vessels, including tugboats and barges. Large shipping vessels have deep drafts, and are restricted to specified shipping lanes that can provide sufficient deep water and provide an adequate margin of separation between the large vessels. Commercial ship traffic is managed by the Vessel Traffic Service (VTS) operated by the U.S. Coast Guard (USCG).



Figure 2.1.4-1A
Proposed Water Trail
Backbone Access Sites
San Pablo Bay and Suisun Bay

Water Trail GIS data provided by BCDC



WETLANDS AND
 WATER RESOURCES, INC.

GEC Co Environmental Consulting

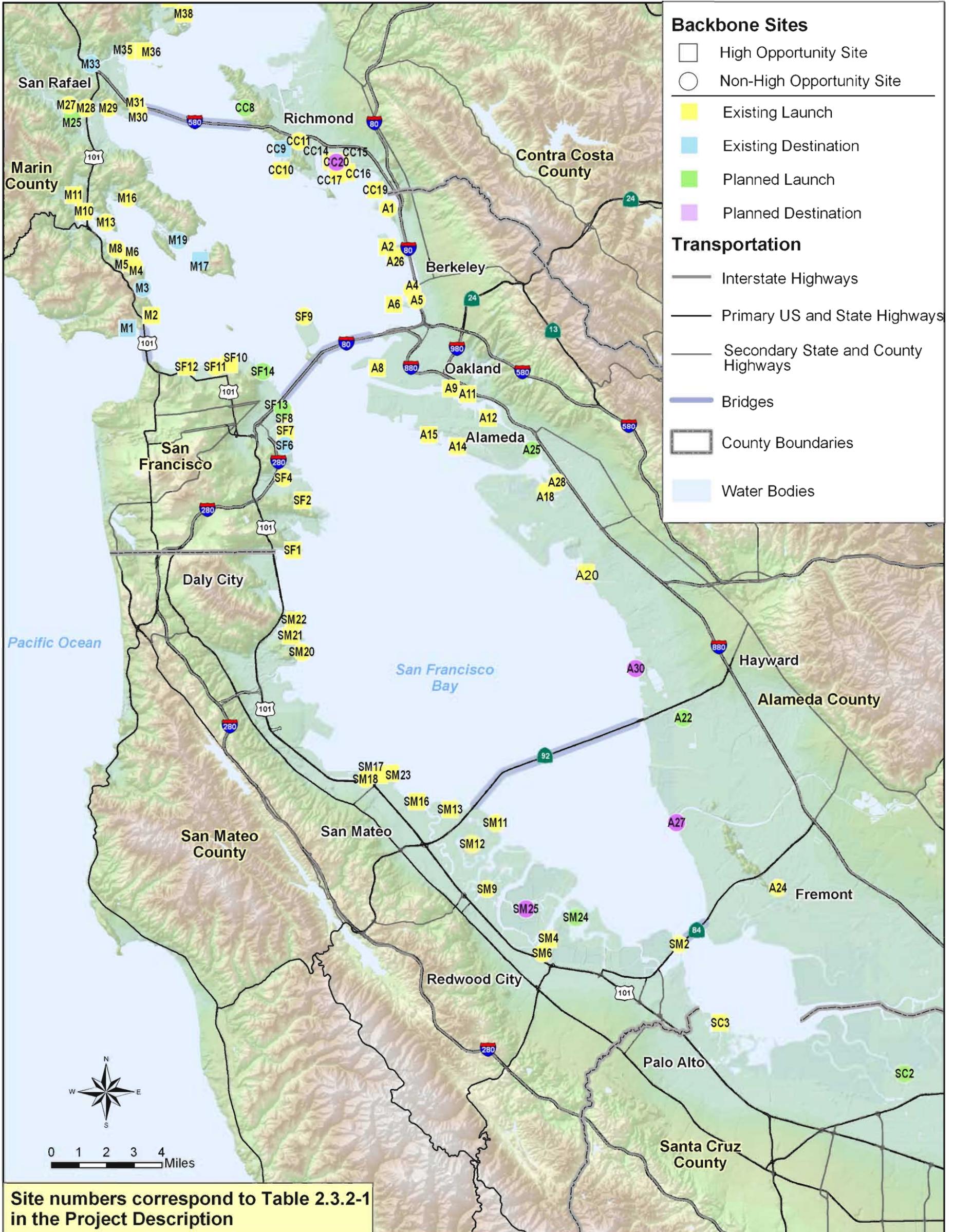


Figure 2.1.4-1B
Proposed Water Trail
Backbone Access Sites
San Francisco Bay

Bay Water Trail GIS data provided by BCDC



GEC Environmental Consulting

Recreational boating includes motorized and non-motorized boats. Motorized boats used for recreational purposes range in size from large boats providing Bay cruises and organized fishing to small sail or rowboats with outboard motors. The WT is designed to facilitate non-motorized small boat use. Non-motorized small boats described in the WT Plan include kayaks, canoes, various types of rowboats and paddleboats (including whale boats, dragon boats, and sculls), windsurfers, and kitesurfers. Recreational boating may be done on an individual basis, as part of an organized tour, or as part of a race or other organized event.

MOTORIZED AND NON-MOTORIZED BOAT OWNERSHIP IN CALIFORNIA AND THE SAN FRANCISCO BAY AREA

There is no single ownership or use survey that provides consistent comparisons of the number of motorized boats versus NMSBs statewide or in San Francisco Bay. Approximately every five years, Cal Boating conducts an assessment of all recreational boating facilities in the State to assist in the allocation of boating facilities and resources, but given the state's funding crisis, the most recent study of this type was published in 2002, based on data from 2000 (Cal Boating 2002). The number of NMSBs in the state at that time was estimated, as presented in the text below, but NMSBs were not the focus of that study. The estimated number of NMSBs in that study was based on a nationwide estimate from the National Marine Manufacturer's Association factored to the number of boats registered in California (Cal Boating 2002). Cal Boating published a study specifically of NMSB ownership and use in the state in 2009, but that study did not survey motorized boat ownership (Cal Boating 2009). The 2009 study provides statistically valid data regarding NMSB ownership and use in the state and in the San Francisco Bay Area.

While the differences in the time periods, methodology, and focus of the two studies make it impossible to directly compare the number of motorized boats vs. NMSBs currently owned and used in the state and in the San Francisco Bay Area, it is possible to compare the general magnitude of boat ownership and use for these two types of recreational boats. The counties included in the data for the "San Francisco Bay Region" of both studies were Alameda, Santa Clara, San Mateo, San Francisco, Marin, Napa, Solano, and Contra Costa. Sonoma County was not included; it was included in the North Coast Region.

The emphasis of the 2002 study is on recreational boating. While it did not exclude commercial boating activities, it did not specifically research commercial boating. The study indicated the following ownership patterns:

- As of December 31, 2000, there were 925,533 registered or otherwise documented boats in California (most registered boats are motorized boats). According to an estimate provided in the report, there were also 113,238 non-motorized boats (97,000 of which were non-registered) in California at that time, or about 12% of the boat total.
- There were an estimated 158,223 recreational (presumably motorized) boats in the Bay Area in 2000.

The more recent Cal Boating study (Cal Boating 2009), which collected data in 2006 and 2007 and focused specifically on non-motorized boating in California, provides a substantially higher estimate of total NMSBs owned in the State and Bay Area: 1.7 million and 297,465, respectively. These data are considered more reliable than the estimate provided by the 2002 Cal

Boating Report, which simply applied a percentage factor to the total number of registered boats to estimate the number of non-motorized boats.⁴

Table 2.2.1-1 illustrates the estimated number of NMSBs owned by Californians by boat type and the percent of total statewide NMSBs for each type (adapted from Table 2.2 in Cal Boating 2009). Note that 41.5% of these NMSBs are “inflatable,” which means “inflatable boats and rafts.” Inflatable kayaks would be included with “kayaks.” (Inflatable boats and rafts are not included in the Water Trail Plan because they are rarely used on San Francisco Bay.)

TABLE 2.2.1-1: ESTIMATED NUMBER OF NMSBs BY BOAT TYPE IN CALIFORNIA IN 2006

Boat Type	Statewide⁽¹⁾	Percent of Total
Inflatable	711,509	41.5%
Kayak	543,251	31.7%
Canoe	191,505	11.2%
Rowing Boat	160,735	9.4%
Sailboard/Kiteboard	55,969	3.2%
Small Sailboat ⁽²⁾	42,770	2.5%
Other	9,010	0.5%
TOTAL	1,714,749	100.0%

Notes:

- (1) Source: California Department of Boating and Waterways, *Non-Motorized Boating in California*, Table 2.2. March 2009.
- (2) Many boaters consider any sailboat that they store at home, and load on their car, as a "small sailboat" even if the sailboat is longer than 8 feet in length. The estimate of small sailboats includes a significant number of these larger small sailboats.

Excluding the inflatables that are owned by Bay Area residents but not used on San Francisco Bay results in an estimated 174,017 NMSBs that may be used on San Francisco Bay, based on 2006 data. Thus, based on 2000 and 2006 data, respectively, the estimated numbers of motorized and non-motorized boats that would be likely to be used on San Francisco Bay appear to be generally similar.⁵

The mix of power boats, ships, large commercial vessels, and NMSBs on the Bay poses potential navigational risks to NMSBs. Most larger vessels lack maneuverability and operate at speeds that far exceed the speed achievable by most human-powered craft. Navigational safety concerns may be exacerbated by recreational boaters’ lack of awareness regarding navigation rules and requirements on the Bay, or lack of boating experience. Although actual collisions are rare, avoidance measures required when there are “near misses” can also lead to dangerous situations;

⁴ The Cal Boating 2002 estimate was based on the estimated percentage of non-motorized small boats as identified in the National Marine Manufacturer’s Association Year 2000 Boating Abstract. It is not specific to California.

⁵Based on the 2002 Cal Boating study, the projected growth rate for motorized boats statewide would increase the motorized boat number of 158,223 to between 170,223 and 173,823 in 2006. See Chapter 4 for further discussion of predicted growth rates.

for example, several years ago a container vessel ran into a Bay Bridge support while avoiding a sailboat (BCDC 2006b).

The Bay also poses potentially challenging physical conditions that could lead to dangerous situations, especially for NMSBs. Cold waters, rapidly changing weather conditions and strong tidal currents occur in the Bay and can create safety hazards. NMSB users may be faced with strong afternoon wind, thick fog, currents up to six knots, water temperatures between 45° and 60°F, and seasonal weather variations. Paddleboat and boardsailing activities also involve extensive contact with the water, which can expose the boater to poor water quality at certain locations and/or in certain weather.

Finally, national security is another factor affecting NMSB use in the Bay. If NMSB users stray into a safety exclusion zone,⁶ the consequences can be severe (e.g., arrest and, in the extreme, being shot at).

2.2.2 PROJECTED GROWTH IN NON-MOTORIZED SMALL BOAT USE

Non-motorized small boat use in the Bay Area is projected to increase over time, with or without the WT Plan (Cal Boating 2009). Growth in NMSB use may include new NMSB users, as well as increased participation in NMSB activities by existing users. The purpose of this EIR is to analyze the potential environmental impacts of NMSB use with implementation of the WT Plan over existing and future NMSB use without implementation of the WT Plan. Both types of growth could affect environmental resources.

The total number of days that people participate in NMSB activities (“participant-days”) is the most appropriate measure of growth because it reflects time spent on the water. As an example, if a user gets out on the Bay only twice in a given time period, the activity for that one individual would be two participant-days; the activity for an individual who goes boating ten times in the same period would be ten participant-days. According to the 2009 Cal Boating report, there were an estimated 7,390,324 participant days by San Francisco Bay Region NMSB users in 2006 (including the use of inflatables). The specific number of participant days for NMSB use on San Francisco Bay is difficult to characterize because the 2009 Cal Boating report focused on use by owners from specific regions, but did not quantify specifically where this use occurred. Telephone surveys of San Francisco Bay NMSB users indicated that they also used inland lakes, reservoirs, North Coast rivers, and the Sacramento-San Joaquin Delta in addition to various areas in San Francisco Bay. Less than half the survey respondents from the San Francisco Bay Region described waterways in the SF Bay Region as their most-used waterways (Cal Boating 2009).

The anticipated growth in NMSB use in the Bay Area (with or without the WT) cannot be predicted with any certainty. The Cal Boating survey (2009) provides perhaps the best dataset available for use in this EIR. In addition, some numerical information regarding national historical and projected future trends in NMSB use is available. Much of the national information is based on sales or total participants. However, the data available for analysis of

⁶ Safety Exclusion Zones are areas where navigation is prohibited to protect land-side facilities and/or protect boaters from hazards.

past practices and trends is limited and is based on a mix of metrics. Available data and observations regarding non-motorized boating trends are further discussed in Section 3.3.

FACTORS POTENTIALLY AFFECTING GROWTH IN NMSB USE

There are multiple factors that may affect the growth of NMSB use, and these factors may lead to substantial variations in growth rates at different access locations. The primary factors potentially affecting growth in NMSB use are the following:

- Regional population growth
- Growth (or decline) in specific NMSB sports
- The age profile of the population
- Publicity regarding available opportunities for participating in NMSB sports, and
- Types of launch, supporting, and ancillary facilities available at access sites

These points are discussed further in Section 3.3.

BASELINE NMSB GROWTH PROJECTIONS

The Cal Boating (2009) study estimates that between 2002 and 2006, 135,759 California households began to participate in non-motorized boating activities, most commonly using inflatable boats or rafts, or plastic recreational kayaks. This estimate is based on the reported increase in boat ownership by household during this period and represents a 3.84% compound annual growth rate for non-motorized boat ownership. The annual increase in boat ownership presumably reflects an increased interest and participation in NMSB use, but based on the available information, it is not possible to isolate the influence of population growth from other factors. Population growth data for California are, however, available, and show 1.34% annual compound growth in the number of households for the same period (Cal Boating 2009). This suggests that more than half of the increase in the number of households owning NMSBs is due to increasing interest in non-motorized boating.

The Cal Boating survey (2009) also presents low, medium, and high growth rate projections for NMSB users (based on the number of boat-owning households) in 2010. The low rate is based on the same percentage of total households owning NMSBs in 2010 as in 2006. Because there will be more households in 2010, the absolute number of boat-owning households is greater than in 2006. The medium growth rate uses the 3.84% compound annual growth rate described above (i.e., 3.84% growth in the number of NMSB-owning households and a constant number of NMSB participants in all households as compared to 2006). The high growth rate uses the 3.84% growth rate described for medium growth plus the Department of Finance population growth projection for 2010. The low estimate for 2010 is 2,063,801 participants in California households owning non-motorized boats, the medium estimate is 2,228,077 participants, and the high estimate is 2,274,395, all based on an assumption of 2.41 participants (not boats) per household.

When considering projected growth of NMSB use in the San Francisco Bay Area, this EIR uses the medium growth baseline of 3.84% because it appears to most accurately reflect growth without substantially underestimating or overestimating the likely increase in boat ownership and

use. Although the projected growth estimates provided in the Cal Boating survey are for the State of California as a whole, they are the best data available for the San Francisco Bay region.⁷

Growth in NMSB use is expected to continue in the long-term. While there may be a decline, as baby boomers age, in the *percentage* of households that participate in NMSB sports, due to the projected overall population growth in California (from less than 37 million today to 50 million by 2050), *total* participation is expected to increase over time. Non-motorized small boating is also attracting a more ethnically diverse group of boaters, which could contribute to sustained growth over time (Cal Boating 2009). The population of the San Francisco Bay Area is expected to increase from 7,341,700 in 2010 to 9,073,700 in 2035 (ABAG 2009).

Based on the Cal Boating study estimates from 2006, there were an estimated 5.3 million participant-days associated with NMSBs (other than inflatable rafts) owned by Bay Area residents and potentially used on San Francisco Bay in 2006 (on average NMSB owners statewide boated 24 days per year).⁸ The estimated 3.84% annual growth would translate to a total growth of 16.3% over four years, or an additional 0.9 million Bay Area participant-days by 2010. Thus, by 2010, there would be a total of 6.2 million participant-days for the use of NMSBs associated with participants from the San Francisco Bay Area. While it is impossible to accurately define the number of participant-days associated strictly with San Francisco Bay (i.e., as described above, NMSB users from the San Francisco Bay region also use numerous other water bodies), the number of participant-days in the area provides a general context for the level of NMSB use. Potential WT effects on growth in participant-days are evaluated in comparison to this baseline.

WATER TRAIL EFFECTS ON GROWTH

While inducing growth in NMSB use is not the main purpose of the WT, implementation of the WT could result in a small increase in the number of participant-days in San Francisco Bay, above what might have occurred without the WT. This incremental increase could occur because the WT would provide outreach and information about the WT, help coordinate and promote educational activities for NMSB users, help to fund certain facility improvements, and help advocate for potential new access sites in appropriate locations. WT-related growth in NMSB use could potentially occur regionally (an overall increase in the number of participant-days throughout the nine-county Bay Area), or at the local site level.

⁷ Potential growth in NMSB use due to increased use of rental equipment and increases in Club participation was not specifically examined in the 2009 Cal Boating report, but growth in these categories is also expected to occur (Cal Boating 2009). However, these two types of uses combined comprised only 5.4% of total participation days in 2006 (Cal Boating 2009).

⁸ There were an estimated 7.4 million total participant days for the Bay Area in 2006. Assuming that inflatables, which would not be used on the Bay, account for 28.3% of all NMSB use (as opposed to ownership) (Cal Boating 2009), 71.7% of NMSB use associated with the Bay Area could actually occur on the Bay. The average number of participants per NMSB-owning household statewide was estimated to be 2.41.

Factors that drive *regional* growth include population trends, overall participation trends in the various NMSB sports, and the population age profile. Publicity may also increase overall participation in non-motorized small boating by improving access to information.

This incremental regional effect on growth associated with implementation of the WT is expected to be very minor compared to the anticipated regional growth driven by population growth and population demographics. This conclusion is based on several factors. There are significant barriers to entry for non-motorized small boating, including physical fitness requirements, the challenging conditions of boating on San Francisco Bay, and costs of participating in the sports. Furthermore, the types of activities that would occur with implementation of the WT are the same types of activities that would occur absent the WT, although implementation of the WT would provide additional publicity, some additional funding, and a more coordinated implementation process. Any incremental regional growth above the growth projected in the Cal Boating study would be extremely difficult to discern.

Growth at the *site-specific* (local) level is expected to be most influenced by publicity and improvements to facilities and services (e.g., guided trips) at a site. If facilities deteriorate, or a nearby site adds attractive facilities, use of a specific site may decline. In some cases, the number of users of a particular site may be constrained by multiple factors, and implementation of a single site enhancement would not be sufficient to change use patterns. The likely effect of any specific enhancement at a specific site would have to be assessed in the context of that site. It is anticipated that only a small percentage of WT trailheads would have enough facility improvements to draw additional users.

Site-specific growth in use would be more apparent than regional growth; however, determining whether site-specific growth is attributable to the WT would also be very difficult. For example, while the Trailhead Plan may recommend certain facility improvements that could lead to increased use of a site, it would be impossible to determine whether the site owners/managers would have made most or all of these recommended improvements absent the WT.

In addition, none of the factors that *may* lead to increased use of a site would necessarily result in increased use. For example, outreach about a site would not necessarily attract additional boaters. Boaters may not want to travel far from home, or they may have their boat stored at a certain site. A site that is already being used at capacity, as limited by parking spaces, may not be able to accommodate additional use, even if more boaters would like to use it (unless parking is increased).

2.2.3 BOATING REGULATIONS

The USCG regulates navigation in San Francisco Bay by issuing and enforcing rules that govern navigation practices, marine events, and safety and security zones within the Bay. The Inland Navigation Rules (commonly called the “Rules of the Road”) apply to “every description of watercraft” and address vessel sailing and steering as well as use of lights and sound (“Rule 3,” 33 United States Code [U.S.C]. § 2003(a)). To enforce these rules, the USCG investigates incidents reported by mariners, and imposes fines and license suspensions for violations. Within the context of navigation in the Bay, Rules 5, 8, 9, and 25 (33 U.S.C. § 2007, 2008, 2009, 2025) are especially relevant to non-motorized small boating.

- Rule 5 requires boaters to maintain a “look-out” while operating a vessel
- Rule 8 describes actions that a vessel operator must take to avoid collisions
- Rule 9 requires vessels (including NMSBs) to keep clear of, and not hinder or interfere with, transit of larger vessels that can “safely navigate only within a narrow channel or fairway”
- Rule 25 requires all vessels under oars (this definition includes NMSBs) operating between sunset and sunrise and during periods of restricted visibility to have ready a hand or electric torch or lighted lantern showing white light which must be displayed in time sufficient to avoid a collision

Although the Rules of the Road apply to NMSBs, they are not specific to NMSBs.⁹ The Rules lack codes of conduct for interactions between certain vessel types that are common on the Bay, including sailboats or small motorboats and kayaks. Regardless of the type of interaction, the Rules oblige a boater to try to avoid a collision, even if s/he has the right of way (33 U.S.C. § 2017). In practical application this usually means that a smaller, more maneuverable boat will have to get out of the way of a larger vessel.

To facilitate compliance with the Rules of the Road, the Coast Guard operates the Vessel Traffic Service (VTS) of San Francisco Bay. VTS acts as a clearinghouse of real-time information on commercial vessel movements on the Bay. VTS staff inform “mariners of other vessels and potential hazards,” and provide recommendations and direction to mariners on courses of action to prevent accidents (USCG 2006). Detailed information pertaining to navigation regulations is provided in Section 3.2.

2.2.4 USE OF NON-MOTORIZED SMALL BOATS

Many natural variables affect the levels of use and use patterns of NMSBs. The primary variables are tides, currents, winds, depth of water, time of day, and season of the year. These five factors combine to provide a highly variable mix of recreational boating settings in different locations. Wildlife habitats and the species they support can also affect patterns of NMSB use by serving as attractions and destinations while also being the cause of seasonal closures in some locations, such as in Richardson Bay and Mowry Slough in the South Bay. Other variables that affect NMSB use and use patterns are location of access points, safety exclusion zones, and other boating activities. In addition, there is a wide variation in use patterns among the different types of NMSBs.

Figure 2.2.4-1 shows the different types of NMSBs included in the WT Plan. The popularity of the various types of NMSBs has changed over time, and will likely continue to change in the future. Information on each of these types of boats, and the level of participation is provided below. The information regarding the percentage of participants and participant-days is taken from *Non-Motorized Boating in California* (Cal Boating 2009), unless otherwise indicated. The different types of NMSBs have very different use patterns.

⁹ In one case, the Rules do specifically identify vessels that might use the Water Trail; Rule 25 addresses lighting requirements for sailing vessels less than 7 meters long and vessels under oar (33 U.S.C. §2025).

Figure 2.2.4-1. Water Trail User Groups

<p>Kayak</p> 	<ul style="list-style-type: none"> ▪ Closed-hulled; 12-19' long; use double-bladed paddle ▪ Sea kayaks (with cock-pit style seat) are well-suited to the Bay ▪ Touring kayaks have space for equipment
<p>Canoe</p> 	<ul style="list-style-type: none"> ▪ Open-hulled; single-blade paddle ▪ Well-suited to protected waters of sloughs and creeks ▪ Not well-suited to open Bay
<p>Dragon boat</p> 	<ul style="list-style-type: none"> ▪ Open-hulled; 40' long; 22 people on board (20 paddlers) ▪ Team racing is popular ▪ Some hull designs stable enough for Bay open waters, offering option for large-group trips
<p>Outrigger canoe</p> 	<ul style="list-style-type: none"> ▪ Open-hulled; up to 40' long; usually 6 paddlers ▪ Team racing is popular ▪ Well-suited to Bay open waters

Figure 2.2.4-1. cont. Water trail user groups.

<p>Sculling</p> 	<ul style="list-style-type: none"> ▪ Very narrow and long; 2, 4 or 8 rowers; long rowing oars ▪ Team racing is popular ▪ Usually done in calm waters
<p>Whaleboat</p> 	<ul style="list-style-type: none"> ▪ Wide, heavy rowboats; usually teams of 10 people (8 rowers) ▪ Team racing is popular ▪ Well-suited to touring; very stable and space for equipment
<p>Rowboat / Dinghy</p> 	<ul style="list-style-type: none"> ▪ Wide, heavy boat; usually rowed by one person ▪ Well-suited to touring; very stable and space for equipment
<p>Sailboards: Windsurfer & Kitesurfer</p> 	<ul style="list-style-type: none"> ▪ Bay conditions are well-suited to boardsailing activities <p>Windsurfer</p> <ul style="list-style-type: none"> ▪ 6-10' long board with mast and single sail ▪ Need strong winds: 15-30 knots ▪ Racing is popular in Bay Area <p>Kitesurfer</p> <ul style="list-style-type: none"> ▪ Large maneuverable kite attached via a harness; separate board straps to feet ▪ Need 10-25 knot winds

Boat ownership rates and boat owner use (participant-days¹⁰) can differ substantially. The concept of “participant-days” more closely reflects how many boats may be out on the Bay during any particular time period than does boat ownership. For example, kayaks comprise 31.7% of all NMSBs owned in California, but comprise 44.4% of participant-days (Cal Boating 2009). In contrast, sailboarding (windsurfing) and kiteboarding (kitesurfing) equipment comprises 3.2% of all NMSBs owned, but these boardsailing uses comprise only 1.2% of NMSB use.

Also of interest is the finding that 98.2% of those who use NMSBs in California do so five or more days per year.¹⁰ The average NMSB user statewide boated a median of 25 days per year. In San Francisco Bay, the average days per year is 21, and the median number of days per year is seven (Exhibit 2.3, Cal Boating 2009). As described earlier, less than half of the San Francisco Bay Region respondents to the 2009 Cal Boating survey use waterways in the San Francisco region as most-used waterways; many use Sacramento Basin and North Coast rivers and lakes. Also, this survey found that about one-third of most-used boats are inflatable rafts, which are normally not used on San Francisco Bay. Detailed information regarding the use patterns associated with each type of NMSB is provided below. Trends in use for the various types of NMSBs are discussed in Section 3.3.

KAYAKS

Kayaks are closed- or open-hulled boats, 12 to 19 feet long that use a double-bladed paddle. There are, generally speaking, four major types of kayaks: “sit-on-top” kayaks (open hulled), sea/touring kayaks (closed hulled kayaks with a cockpit), whitewater kayaks, and inflatable kayaks. As mentioned above, California-wide, kayaks comprise 44.4% of all NMSB use (participant days). “Sit-on-top” kayaking accounts for the majority of kayak rentals around the Bay. However, rentals and guided trips comprise only 1.5% of NMSB use statewide (Cal Boating 2009).

Relative to other NMSBs, kayaks are versatile in terms of launch site requirements. Kayakers prefer to launch from a sand or pebble beach or low-profile freeboard boarding float, but a wide range of ramps, boarding floats, and shoreline terrains are usable. In almost all cases, launches developed for other NMSB types or for trailered boats can serve kayaks as well, although with significant challenges for water entry and exit at times. For NMSB users with mobility limitations, launch site requirements are more specific. These NMSB users require sufficient water depth throughout the tidal cycles to allow the use of boarding floats, or a hard-packed, even surface with a gentle slope, such as a boat launching ramp or beach. All kayakers need space on or near the launch site to prepare equipment.

Two categories of kayaks are used on the Bay: traditional sea or touring kayaks with cockpit seats, and “sit-on-top” kayaks. Touring kayaks have space for equipment and are suitable for multi-day trips. “Sit-on-top” kayaks have a higher center of gravity than traditional sea kayaks and therefore are not as stable on the Bay's often choppy waters. To compensate for this higher center of gravity, a “sit-on-top” kayak is often wider than a traditional kayak of the same length.

¹⁰ This level of use is defined as “regular use” or “frequently used boats” in the Cal Boating study, which calculates participant-days based on this level. The only other level is lower use (not used in the past 5 years, or used 1 – 4 days per year).

This creates more wind resistance, generally resulting in a slower pace, with more energy spent when compared to a sea kayak, and shorter trips.

The distance that a kayaker on San Francisco Bay will travel varies widely, depending not only on the kind of kayak, as discussed above, but also on a suite of other factors: the experience, fitness, and time constraints of the individual or group; the purpose of the trip (e.g., sightseeing, nature appreciation, reaching a certain destination, getting a good workout), and Bay conditions. In a small (n = 11) survey of individuals with knowledge of non-motorized boating on San Francisco Bay (2M 2009), the average estimate of how many miles an “average” kayaker travels in one day on San Francisco Bay was 6.8 miles, but these responses ranged from a low of three miles to a high of 16 miles per day. When asked for an estimate of the percentage of kayakers who typically travel 0-3, 3-6, 6-8, or more than eight miles per day, the responses varied greatly as well. For those operating commercial rentals, 0-3 miles would be a typical outing for clients. For those representing clubs, all responded that eight or more miles per day would be typical. The remaining respondents leaned toward 3-6 miles more often than 6-8 miles.

Regarding speed of travel, the survey found that a reasonable average speed would be three miles per hour, consistent with the two-to-four miles per hour speed suggested in the draft WT Plan (BCDC 2007b). More experienced paddlers may travel up to four or five miles per hour. Many kayakers do not like to travel more than two hours at a time without a rest stop (and restroom).

The results of this survey and the paucity of published data on the subject of how far and how fast kayakers travel underscore the difficulty in characterizing average speeds and distances traveled by kayakers in the San Francisco Bay Area or elsewhere.

Kayaking is most popular from May to October. Kayaks are the NMSB type most likely to be used on the WT because they can be safely operated in a great variety of Bay environments and can be used most of the year. Kayakers are also the most likely WT users to embark on multi-site and multi-day trips on the Bay.

CANOES

Canoes are open-hulled boats that are paddled using a single-blade paddle. Canoeing, based on participation days of those who boat five or more days per year, comprises approximately 10.5 % of all NMSB use in California (Cal Boating 2009). Water entry requirements are similar to those for kayaks. Because they are less stable than other NMSBs, and are open vessels that can swamp in wave conditions, canoes are used less frequently in San Francisco Bay. Canoeing clubs and solo canoeists in the Bay Area occasionally paddle on the open Bay. However, they tend to keep to the quieter waters of channels, sloughs, tributary rivers and creeks along the margins of the Bay where waters are not as deep and winds and waves are not typically as strong. As with kayaking, although there are winter opportunities with calm days and abundant wildlife to observe, canoeing is most popular during the warmer, dryer weather from May to October (pers. comm. Bob Licht, 2008; pers. comm. Penny Wells, 2008).

BOARD SAILING: WINDSURFERS AND KITESURFERS

Bay conditions are well-suited to boardsailing activities. As discussed above, California-wide, sailboarding and kiteboarding comprise 1.2% of NMSB use (Cal Boating 2009) by those who

use NMSBs five or more days per year. Kitesurfing is a relatively new form of on-water recreation on the Bay. The number of kitesurfers (also referred to as “kiteboarders”) on the Bay remains relatively small partly because the skill level required creates a barrier to casual participation.

Windsurfers are 6- to 10-foot long boards with a mast and a single sail. They need strong winds to operate, preferably in the range of 15 to 30 knots. A kitesurfer is a large, maneuverable power kite¹¹ attached to the rider via a harness; the user stands on a small surfboard, wakeboard, or kiteboard (a separate board that straps to the user’s feet). Kite sizes and shapes vary depending on the user’s skill. Like windsurfers, kitesurfers need strong winds. Windsurfers and kitesurfers prefer beach launches, and kitesurfers, in particular, need sites with cross-shore winds and no obstructions on the beach. Windsurfers may also use ramps through riprap or boarding floats. Both need staging areas for rigging and de-rigging equipment, and require strong winds blowing from a certain direction with respect to the shoreline. Special needs users have launched from the South Sailing Basin dock used by the Cal Adventures program.

Windsurfing and kitesurfing occur on areas of the Bay where winds are sufficiently strong. Of the 112 sites identified in the WT Plan, approximately 16 provide suitable wind and launch conditions for windsurfers and/or kitesurfers (Cal Boating 2009). As strenuous sports where water safety is paramount, boardsailing tends to occur in the zone immediately around the launch point, rather than as linear point-to-point travel. The sailing season usually starts in March or April, and runs into September. However, many in the windsurfing community sail all year long, particularly before, during and after winter storms.

The San Francisco Boardsailing Association claims 1,600 members and represents the interests of windsurfers on San Francisco Bay. The San Francisco Kitesurfing Association does not post membership numbers, and as a fairly new sport it has relatively few participants. Some kitesurfers came from the ranks of windsurfers, and some pursue both activities.

TEAM BOATING

California-wide, dragon boating, whaleboating, outrigger canoeing and sculling comprise less than 2% total of all NMSB use (Cal Boating 2009). They are all popular team activities, most often involving racing. In 2006 - 2007, there were an estimated 9,000 club boating participants in the Bay Area (Cal Boating 2009). Use of dragon boats and sculls is generally limited to use areas around the Bay where wind and water conditions are calm and most conducive to that type of boating. Whale boats and outrigger canoes are more stable in rough waters. Outrigger canoe racing, along with dragon boat racing, has experienced rapid growth in the Bay Area in the last five to ten years (BCDC 2006a).

Dragon boats have twenty paddlers, ten to a side. A drummer sets the pace and a twenty-second team member is responsible for steering. Dragon boats are open-hulled and usually about 45-feet long. Some hull designs are stable enough for Bay open waters, offering the option for large-group trips. Dragon boats require a beach, boarding float or sufficient dock space to moor a 45-foot boat. Launch sites adjacent to training areas are preferred, and a dock tie space is needed

¹¹ A power kite or traction kite is a large kite designed to provide significant pull to the user.

for storage. Most dragon boat clubs are focused on sprint racing. The California Dragon Boat Association (CDBA), based in the Bay Area, has at least seven clubs that practice year-round on a weekly basis with about 1,000 members, and an additional 700 non-members participating in events.

Outrigger canoes are open-hulled boats up to 40-feet long; the most popular-sized outrigger canoe is propelled by six paddlers. Outriggers are pulled up on the beach by hand. Beach space sufficient to launch a 40-foot boat is required for outrigger canoes. Outrigger canoes also need rigging space. Outrigger canoe clubs prefer launches adjacent to training areas for racing teams and on-site boat storage. There are about a dozen outrigger canoe clubs around the Bay that promote the recreational and cultural values of the sport, and train crews year-round for international races that range from 500-meter sprints to 30-mile marathon events.

Whaleboats are heavy, open-water boats rowed by teams of 10 (eight rowers), and historically used for life-saving and whale hunting. Whale boat teams prefer launch sites adjacent to training areas for racing teams, and dock tie space for storage. Whaleboat use occurs around the entire Bay but is concentrated in the more urban areas, where there is storage space and organized groups exist. There are several whaleboat teams in the Bay Area with public agency and corporate sponsors. Teams practice year-round in preparation for the racing season, which consists of around ten races, and lasts from May through October. Whaleboats are well-suited to touring because they are very stable and have space for equipment.

Sculls are very narrow, long, open-hulled vessels with long rowing oars. They are used in racing, and are crewed by two, four, or eight rowers. Sculls require a low-profile (freeboard) boarding float or dock for launching. Teams prefer launches adjacent to training areas, and on-site boat storage. Scullers require sites protected from winds and with calm waters. A single-person scull is used for training.

ROWBOATS AND DINGHIES

Rowboats and dinghies on the Bay are small, open boats sometimes carried as a tender, lifeboat, or pleasure craft on a larger vessel. They are relatively small boats of shallow draft with cross thwarts for seats and rowlocks for oars. They are well-suited to touring because they are wide and heavy, very stable, and have space for equipment. Depending on their size and design, these craft may be rowed by one person or small groups. Although California-wide 8% of all NMSB use by those who boat five or more days per year consists of rowboats and dinghies (Cal Boating 2009), rowboating on the Bay as recreation is a relatively minor activity in terms of overall numbers.

Non-motorized rowboats are sometimes used by individuals for fishing and nature observation in the sloughs and creeks in the North and South Bay. The Dolphin Swimming and Boating Club located in Aquatic Park in San Francisco is one organization that offers a variety of rowing activities, including participation in rowing races and trips.

EXISTING NMSB ACCESS ONTO THE BAY

Recreational NMSB use on San Francisco Bay is essentially a dispersed recreation activity. With the exception of established exclusion zones enforced by the USCG (see Section 3.4) and the

U.S. Fish and Wildlife Service (USFWS), no agency or specific baywide program directs boaters where, or where not, to travel. Existing NMSB access onto the Bay consists of over 135 sites identified during the development of the WT Plan between 2005 and 2007. The types of NMSB access, facilities, and geographic locations vary greatly among these sites. There are also many other informal sites to which a portable craft, such as a kayak or canoe, could be carried and launched.

ACCESS TYPES

There are two types of access onto the Bay for small, non-motorized boats: launch sites and destination sites. Both launch and destination sites may be designated as WT trailheads. A launch site is a shoreline location where a NMSB can gain access to the Bay or a waterway connected to the Bay. Launch sites are reachable by land, and users must be able to transport their NMSBs to the water's edge.

A destination site (also referred to as a landing site) is a shoreline location where NMSBs can land, but from which they cannot or should not be launched initially. Most of these destination sites are not accessible by car or within a reasonable distance for boaters to transport their boats to the launch. A destination site needs to have facilities (such as a boat launching ramp, boarding float, or beach) for landing and then re-launching a NMSB.

AVAILABLE FACILITIES

Existing sites vary in terms of the level of development and management they offer in support of non-motorized boating. Most sites support multiple recreational uses. They range from the highly-developed facilities available at many marinas to the simple facilities common in certain public access areas.

Basic access onto the water consists of a place to launch, whether it is a beach, a dock, ramp, tidal steps, piers, a floating dock, or other means. Parking is usually another essential component of access for NMSB users. Access can be enhanced with a variety of improvements and services, such as restrooms, boat drop-off parking zones, equipment storage, boat houses, transient docking, overnight accommodations (such as a hostel, campsite, historic ship, hotel, or bed and breakfast), rigging areas, fresh water for washing gear, individual or group picnic areas, a restaurant or café, rental concessions, trash and recycling containers, bicycle racks, lighting, emergency phones, landscaping, trail system connections, trailhead directional/signs from the local street network, and safety information and regulatory signs. Some access locations or facility conditions are less favorable for NMSBs. For example, a site might have only a boat launching ramp best-suited to launching motorized watercraft, and/or lack parking or restrooms.

EXISTING ACCESS SITE LOCATIONS

The 135 identified existing or planned launch and destination sites are located in waterfront parks (50% of all sites), marinas and harbors (17%), sites with public launch ramps or floats (13%), public access areas (12%), and to a lesser extent, wildlife refuges (1%) and privately owned sites (7%) (BCDC 2007b). Management of the many access locations around the Bay is provided by the site owners. Some private businesses – most often shoreline restaurants– offer use of their docks or ramps for a launch fee or are free to their clients.

FIGURE 2.2.4-2 EXISTING ACCESS SITES

Geographically, the access sites are clustered primarily around the central Bay, from southern Marin and Contra Costa Counties south to Redwood City and San Leandro (see Figure 2.2.4-2). Most of these sites are in, or near, urban areas, and this portion of the Bay is heavily used for commercial shipping, ferry transportation and all types of recreational boating. In comparison, the South Bay, San Pablo Bay and Suisun Marsh have fewer access points. Access in these areas is physically constrained by the shallowness of the Bay and the potential for becoming stranded in mudflats at low tide.

Existing launch and destination sites vary widely in terms of their level of development. Undeveloped sites may consist solely of a beach or other shoreline that allows access to the water, and some type of available nearby parking. Formal launch and destination sites may include a hardended shoreline, boat launching ramps or boarding floats, docks or other facilities for boat storage, rental and food concessions, restrooms, picnic or camping facilities, parking areas, rigging and boat washing areas, access

to other recreational amenities such as land-side trails, access to public transportation, information and signage, and educational opportunities.

2.3 Water Trail Plan

2.3.1 OVERVIEW OF THE WATER TRAIL PLAN

The WT Plan is a guide to trail implementation for the agencies and organizations that will develop and manage WT access points and programs, as well as for trail proponents and other stakeholders involved in trail implementation. The WT Plan outlines principles, guidelines, strategies, and recommendations for implementation of the WT. The Plan also addresses the opportunities and challenges involved in developing a trail that has both land and water components in the San Francisco Bay Area – a large and complex setting for a regional recreational access project. The recommended policies and procedures in the Plan define how the WT will take shape over time by guiding trail planning, development and management on organizational, program- and project-specific levels. The WT Plan is currently in Final Draft form; the Final Draft was completed in September 2007 (BCDC 2007b).

The Final EIR must be certified and the Final WT Plan approved by the Conservancy at a public meeting before implementation of the WT Plan would begin. Initial implementation of the WT Plan would focus on trailhead designation and development of educational, outreach, and signage materials. It is anticipated that sites would be prioritized so that trailheads with greater support or interest from the owner/manager for inclusion in the WT and fewer potential environmental or safety concerns would be designated first. Designation would include

development of appropriate signage and development of any necessary educational and outreach materials. Prioritizing potential trailhead designation decisions in this manner would accelerate the development of the WT network in the early stage of implementation.

2.3.2 WATER TRAIL SITES

Potential WT sites are identified in the WT Plan. The WT Plan allows for the addition of new sites that meet the WT Plan criteria (including an appropriate level of project-specific CEQA documentation, as required by existing CEQA regulations) in the future. Initially, the vast majority of WT access sites would be designated from existing and planned access points. Of the more than 135 existing access points onto the Bay, 112 have been identified as WT “Backbone Sites” in the Plan (Figures 2.1.4-1A and 2.1.4-1B and Table 2.3.2-1), meaning that they are thought to be potentially suitable for inclusion in the WT, although not all trailheads can be used for all NMSB types. The environmental analysis provided in this document focuses on the 112 Backbone Sites, while establishing the framework for the consideration of other, currently unidentified sites.

BACKBONE SITES

The 112 Backbone Sites were recommended for inclusion in the WT during the planning process. They do not comprise a final WT network. The WT network would be gradually established over time as each Backbone Site (and possible new site) is considered for designation as a WT Trailhead. This starting pool of Backbone Sites includes sites that fulfill two basic criteria. These sites:

1. Have launch facilities or planned facilities (e.g., ramp, float, etc.) or launch areas (e.g., a beach) that are used for NMSB access or are planned for this use.
2. Are open to the public.

Some access sites are privately owned. These sites are potentially open to the public but would be subject to all conditions imposed by the site owner, and use of these sites may require patronage of a business. There may also be fees for the public to use a site.

Some existing and planned sites are not included in the Backbone Site list because they have one or more conditions that could preclude inclusion in the WT. These conditions are:

- The site lacks necessary facilities and does not have the space or capacity to ever provide any of these additional amenities, and is unlikely to be an interesting or useful destination site
- Property ownership or rights are unclear for the site, or
- The site owner or manager does not want the site to be part of the WT

The 112 Backbone Sites include 12 destination sites and 100 launch sites, as defined under “Access Types,” above. Of the destination sites, seven exist already and five are planned. Of the launch sites, 88 exist and 12 are planned. Combining all launch and destination sites, 95 are existing and 17 are planned.

TABLE 2.3.2-1 WATER TRAIL BACKBONE SITES

Site I.D.	Site Name	E/P, L/D*1	HOS?	Ownership*2	City/County	Launch Type	General Site Category	Manager
Alameda County								
A1	Albany Beach	EL		public	Albany	sand beach	waterfront park	East Bay Regional Park Service (EBRPD)
A2	Berkeley Marina, Ramp	EL	Y	public	Berkeley	ramp	marina/harbor	Berkeley Marina, Harbormaster
A4	Point Emery	EL		public	Emeryville	sand beach	waterfront park	City of Emeryville
A5	Shorebird Park	EL		public	Emeryville	pebble beach	waterfront park	City of Emeryville
A6	Emeryville City Marina	EL	Y	public	Emeryville	ramp	marina/harbor	City of Emeryville
A8	Middle Harbor Park	EL	Y	public	Oakland	sand beach	waterfront park	EBRPD/Port of Oakland
A9	Jack London Square/CCK	EL	Y	public	Oakland	float	public boat launch ramp/float	City of Oakland
A11	Estuary Park/Jack London Aquatic Center	EL	Y	public	Oakland	ramp, float	waterfront park	C. of Oak., Parks and Rec./ Jack London Aq. Cen.
A12	Grand Avenue Boat Ramp	EL	Y	public	Alameda	ramp, float	public boat launch ramp/float	City of Alameda
A14	Robert Crown Memorial State Beach	EL	Y	public	Alameda	sand beach	waterfront park	EBRPD
A15	Encinal Launching and Fishing Facility	EL	Y	public	Alameda	ramp, float	public boat launch ramp/float	City of Alameda
A18	Doolittle Drive; Airport Channel	EL		public	Oakland	ramp	waterfront park	EBRPD
A20	San Leandro Marina	EL	Y	public	San Leandro	ramp, float	marina/harbor	San Leandro Marina, Harbormaster
A22	Eden Landing Ecological Reserve	PL		public	Hayward	planned ramp	refuge/reserve	CA Dept of Fish and Game
A24	Jarvis Landing	EL		private	Newark	ramp	privately owned (business)	US Fish and Wildlife Service/ Cargill
A25	Tidewater Boathouse	PL		public	Oakland	planned float	public boat launch ramp/float	EBRPD
A26	Berkeley Marina, Small Boat Launch	EL	Y	public	Berkeley	dock	public boat launch ramp/float	Berkeley Marina, Harbormaster
A27	Coyote Hills	PD		public	Fremont	N/A	refuge/reserve	EBRPD/Alameda Co. Flood Control
A28	Elmhurst Creek	EL		public	Oakland	creek bank	public access area	EBRPD
A30	Hayward's Landing	PD		public	Hayward	N/A	refuge/reserve	EBRPD

TABLE 2.3.2-1 WATER TRAIL BACKBONE SITES

Site I.D.	Site Name	E/P, L/D*1	HOS?	Ownership*2	City/County	Launch Type	General Site Category	Manager
Contra Costa County								
CC1	Martinez Marina	EL	Y	public	Martinez	ramp, float	marina/harbor	City of Martinez; Westrec
CC2	Carquinez Strait Reg. Shoreline (Eckley Pier)	EL	Y	public	Martinez	pebble beach	waterfront park	EBRPD
CC5	Rodeo Marina	PL		private	Contra Costa County	no access	marina/harbor	Bennett's Marina, Harbormaster
CC6	Pinole Bay Front Park	EL	Y	public	Pinole	pebble beach	waterfront park	City of Pinole
CC8	Point Molate Beach Park	PL		restricted	Richmond	N/A	waterfront park	City of Richmond
CC9	Keller's Beach	ED	Y	public	Point Richmond	sand beach	waterfront park	EBRPD
CC10	Ferry Point	EL	Y	public	Point Richmond	sand beach	waterfront park	EBRPD
CC11	Boat Ramp Street Launch Area	EL		public	Richmond	ramp	public boat launch ramp/float	City of Richmond
CC14	Richmond Municipal Marina	EL	Y	public	Richmond	ramp, float	marina/harbor	City of Richmond, Westrec
CC15	Marina Bay Pk. & Rosie the Riveter Memorial	EL		public	Richmond	riprap, dirt beach	waterfront park	City of Richmond, owned by National Park Service (NPS)
CC16	Shimada Friendship Park	EL	Y	public	Richmond	steps	waterfront park	City of Richmond
CC17	Barbara & Jay Vincent Park	EL	Y	public	Richmond	sand beach	waterfront park	City of Richmond
CC19	Point Isabel Regional Shoreline	EL	Y	public	Richmond	dirt beach	waterfront park	EBRPD
CC20	SS Red Oak Victory	PD		private	Richmond	ship	privately owned (business)	SS Red Oak Vict. and Richm. Mus. of History
CC21	Point Pinole	PD		public	Pinole	N/A	waterfront park	EBRPD
CC22	Bay Point Regional Shoreline	PL		public	Contra Costa County	N/A	waterfront park	EBRPD
CC23	Rodeo Beach	PL		public	Contra Costa County	sand beach	waterfront park	EBRPD
Marin County								
M1	Kirby Cove	ED	Y	public	Sausalito	pebble beach	waterfront park	NPS, Golden Gate National Recreation Area
M2	Horseshoe Cove	EL	Y	public	Sausalito	sand beach	waterfront park	NPS, Golden Gate National Recreation Area
M3	Swede's Beach	ED		public	Sausalito	sand beach	waterfront park	City of Sausalito, Dept of Parks and Rec

TABLE 2.3.2-1 WATER TRAIL BACKBONE SITES

Site I.D.	Site Name	E/P, LD*1	HOS?	Ownership*2	City/County	Launch Type	General Site Category	Manager
M4	Turney Street Public Boat Ramp	EL		public	Sausalito	ramp	public boat launch ramp/float	City of Sausalito, Dept of Parks and Rec
M5	Dunphy Park	EL	Y	public	Sausalito	pebble beach	waterfront park	City of Sausalito, Dept of Parks and Rec
M6	Schoonmaker Point	EL	Y	public	Sausalito	sand beach	waterfront park	Schoonmaker Point Marina, Harbormaster
M8	Clipper Yacht Harbor	EL		private	Sausalito	ramp	marina/harbor	Clipper Yacht Harbor, Harbormaster
M10	Shelter Point Business Park	EL	Y	public	Mill Valley	float	public boat launch ramp/float	City of Mill Valley, Dept of Parks and Rec
M11	Bayfront Park	EL	Y	public	Mill Valley	dirt beach, float	waterfront park	City of Mill Valley, Dept of Parks and Rec
M13	Brickyard Park	EL		public	Strawberry	dirt beach	waterfront park	Strawberry Recreation District
M16	Richardson Bay Park/ Blackie's Pasture	EL		public	Tiburon	sand beach	waterfront park	City of Tiburon
M17	Angel Island State Park	ED	Y	public	Marin County	sand beach	waterfront park	CA Dept of Parks and Rec
M19	Sam's Anchor Café	ED		private	Tiburon	float	privately owned (business)	Sam's Anchor Café
M25	Higgins Dock	PL		public	Corte Madera	no access	public boat launch ramp/float	City of Larkspur
M27	Bon Aire Landing	EL		public	Larkspur	float	public boat launch ramp/float	City of Larkspur
M28	Marin Rowing Association Boathouse	EL		public	Larkspur	float	public boat launch ramp/float	City of Larkspur
M29	Remillard Park	EL		public	Larkspur	pebble beach	waterfront park	City of Larkspur
M30	San Quentin	EL		public	San Rafael	sand beach	waterfront park	County of Marin
M31	Jean & John Starkweather Shoreline Park	EL		public	San Rafael	sand beach	waterfront park	City of San Rafael
M33	Harbor 15 Restaurant	ED		private	San Rafael	ramp	privately owned (business)	Harbor 15 Restaurant
M35	Loch Lomond Marina: Ramp	EL	Y	private	San Rafael	ramp	marina/harbor	Loch Lomond Marina
M36	Loch Lomond Marina: Beach	EL	Y	private	San Rafael	dirt beach	marina/harbor	Loch Lomond Marina
M38	McNear's Beach	EL	Y	public	San Rafael	sand beach	waterfront park	County of Marin
M39	China Camp State Park	EL	Y	public	San Rafael	sand beach	waterfront park	CA Dept of Parks and Rec
M40	Bull Head Flat	EL	Y	public	San Rafael	pebble beach	waterfront park	CA Dept of Parks and Rec
M41	Buck's Landing	EL		private	San Rafael	float	privately owned (business)	Buck's Landing

TABLE 2.3.2-1 WATER TRAIL BACKBONE SITES

Site I.D.	Site Name	E/P, L/D*1	HOS?	Ownership*2	City/County	Launch Type	General Site Category	Manager
M43	John F. McInnis Park	EL		public	San Rafael	float	waterfront park	County of Marin
M47	Black Point Boat Launch	EL	Y	public	Novato	ramp, float	public boat launch ramp/float	County of Marin
Napa County								
N1	Cutting's Wharf	EL	Y	public	Napa County	ramp, float	public boat launch ramp/float	Napa County
N2	JFK Memorial Park	EL	Y	public	Napa	ramp, float	waterfront park	City of Napa
N6	Napa Valley Marina	EL	Y	private	Napa	ramp	marina/harbor	Napa Valley Marina
N7	Green Island Boat Launch Ramp	PL		public	American Canyon	ramp	public boat launch ramp/float	CA Dept of Fish and Game
N8	Riverside Drive Launch Ramp	EL		public	Napa	ramp	public boat launch ramp/float	City of Napa
Santa Clara County								
SC2	Alviso Marina	PL		public	San Jose	planned ramp	waterfront park	County of Santa Clara
SC3	Palo Alto Baylands Launching Dock	EL	Y	public	Palo Alto	ramp, float	waterfront park	City of Palo Alto
San Francisco County								
SF1	Candlestick Point State Recreation Area	EL	Y	public	San Francisco County	sand beach	waterfront park	CA Dept of Parks and Rec
SF2	India Basin Shoreline Park	EL	Y	public	San Francisco	pebble beach	waterfront park	San Francisco Dept of Parks and Rec
SF4	Islais Creek	EL		public	San Francisco	pebble beach	waterfront park	Port of San Francisco
SF6	The "Ramp"	ED		private	San Francisco	ramp	privately owned (business)	Ramp Restaurant
SF7	Pier 52 Boat Launch	EL	Y	public	San Francisco	ramp	public boat launch ramp/float	Port of San Francisco
SF8	South Beach Harbor (AKA Pier 40)	EL		private	San Francisco	float	marina/harbor	South Beach Harbor, Harbormaster
SF9	Treasure Island	EL		public	San Francisco	ramp	public access area	Treasure Island Development Authority for the City of San Francisco (recheck – as of Jan 2010 still owned by Navy)(
SF10	Aquatic Park	EL	Y	public	San Francisco	sand beach	waterfront park	NPS, San Francisco Maritime National Historical Park

TABLE 2.3.2-1 WATER TRAIL BACKBONE SITES

Site I.D.	Site Name	E/P, L/D*1	HOS?	Ownership*2	City/County	Launch Type	General Site Category	Manager
SF11	Gas House Cove (aka Marina Green)	EL		public	San Francisco	float	marina/harbor	City of San Francisco
SF12	Crissy Field	EL	Y	public	San Francisco	sand beach	waterfront park	NPS, Golden Gate National Recreation Area
SF13	Brannan St Wharf	PL		N/A	San Francisco	N/A	public boat launch ramp/float	Port of San Francisco
SF14	Northeast Wharf Park	PL		N/A	San Francisco	N/A	waterfront park	Port of San Francisco
San Mateo County								
SM2	Ravenswood Open Space Preserve	EL		public	Menlo Park	sand beach	waterfront park	Midpeninsula Regional Open Space District
SM4	Redwood City Municipal Marina	EL	Y	public	Redwood City	ramp	marina/harbor	Port of Redwood City, Harbormaster
SM6	Docktown Marina	EL		private	Redwood City	ramp	marina/harbor	Docktown Marina, Harbormaster
SM9	Redwood Shores Lagoon	EL		private	Redwood Shores	dirt beach	waterfront park	Redwood Shores
SM11	Beaches on the Bay	EL		public	Foster City	sand beach	waterfront park	Foster City
SM12	Foster City Lagoon Boat Park	EL		public	Foster City	ramp	waterfront park	Foster City
SM13	East 3rd Ave	EL	Y	public	Foster City	sand beach	waterfront park	City of San Mateo
SM16	Seal Point Park	EL	Y	public	San Mateo	ramp	waterfront park	City of San Mateo
SM17	Coyote Point, Marina	EL	Y	public	San Mateo	ramp	marina/harbor	County of San Mateo, Parks and Rec Dept
SM18	Old Bayshore Highway	EL		public	Burlingame	sand beach, riprap	public access area	N/A
SM20	Colma Creek/Genentech	EL		public	So San Francisco	creek bank	public access area	N/A
SM21	Oyster Point Marina	EL	Y	public	So San Francisco	sand beach, ramp, float	marina/harbor	San Mateo County Harbor District
SM22	Brisbane Marina	EL	Y	public	Brisbane	riprap	marina/harbor	City of Brisbane
SM23	Coyote Point, Beach	EL	Y	public	San Mateo	sand beach	waterfront park	County of San Mateo, Parks and Rec Dept
SM24	Westpoint Marina	PL		private	Redwood City	ramp	marina/harbor	Westpoint Marina
SM25	Corkscrew Slough Viewing Platform	PD		public	Redwood City	dock	refuge/reserve	US Fish and Wildlife Service

TABLE 2.3.2-1 WATER TRAIL BACKBONE SITES

Site I.D.	Site Name	E/P, L/D*1	HOS?	Ownership*2	City/County	Launch Type	General Site Category	Manager
Solano County								
So1	Brinkman's Marina	EL	Y	public	Vallejo	ramp, float	public boat launch ramp/float	City of Vallejo
So2	California Maritime Academy	EL		public	Vallejo	ramp	public boat launch ramp/float	CA Maritime Academy (SF State University)
So5	Belden's Landing	EL	Y	public	Fairfield	ramp, float	public boat launch ramp/float	Solano County
So7	Matthew Turner Park	EL	Y	public	Benicia	pebble beach	waterfront park	City of Benicia, Parks and Comm. Serv.
So8	West 9th Street Launching Facility	EL	Y	public	Benicia	ramp, float	waterfront park	City of Benicia, Parks and Comm. Serv.
So9	Benicia Point Pier	EL	Y	public	Benicia	pebble beach	waterfront park	City of Benicia, Parks and Comm. Serv.
So10	Benicia Marina	EL	Y	public	Benicia	ramp	marina/harbor	Benicia Marina, Harbormaster
So12	Suisun City Marina	EL	Y	public	Suisun City	ramp, float	marina/harbor	Suisun City
Sonoma County								
Sn3	Hudeman Slough	EL		public	Sonoma County	ramp, float	public boat launch ramp/float	Sonoma County Regional Parks Department
Sn5	Papa's Taverna/ Lakeville Marina	EL	Y	private	Petaluma	ramp	privately owned (business)	Papa's Taverna; Lakeville Marina, Harbormaster
Sn6	Petaluma Marina	EL	Y	public	Petaluma	ramp	marina/harbor	Petaluma Marina, Harbormaster
Sn7	Petaluma River Turning Basin	EL		public	Petaluma	float	public boat launch ramp/float	N/A
*1	ED = Existing Destination							
	EL = Existing Launch							
	PD = Planned Destination							
	PL = Planned Launch							
	N/A = Information not available							
*2	Use of private sites by NMSBs is strictly at the discretion of the site owner, and subject to all conditions imposed by the site owner (e.g., may require patronage of a business).							

Some sites have natural features (e.g., beaches) that are suitable for, and currently used by persons with disabilities (e.g., Environmental Traveling Companions launches from Schoonmaker Point). In addition, some sites have shoreside facilities, such as restrooms and parking, that are ADA-accessible, or other features, such as the cement ramp at Barbara and Jay Vincent Park in Richmond (CC17), that may be suitable for use by any persons with mobility impairment.

HIGH OPPORTUNITY SITES

Fifty-seven of the WT Backbone Sites are designated by the WT Plan as “High Opportunity Sites” (HOSs). Sites meeting the HOS criteria would be the simplest sites to designate as trailheads and incorporate into the WT network. As described in the WT Plan, an HOS is a site where:

1. Launch facilities do not require additional improvements beyond signage.
2. No major management issues (e.g., user conflicts, wildlife disturbances, health risks from poor water quality) are expected to be caused by trailhead designation that would [in turn] require further site assessment, planning or management changes prior to designation.

The 57 potential HOSs identified in the WT Plan are shown on Figure 2.3.2-1. Focusing initial trail development efforts on these High Opportunity Sites would enable WT managers to designate many trailheads relatively quickly because these sites only require WT-related signage, and do not have significant challenges that would complicate site planning and management. These sites can be promoted as the WT early in the implementation process and would help refine the process of trailhead designation.

OTHER (NON-HOS) BACKBONE SITES

Fifty-five sites were retained in the general Backbone Site category. During the trailhead designation process, more detailed evaluation of any of the 112 sites could result in a reclassification that could move non-HOSs into the HOS group or vice-versa. The only real consequence of reclassification is that HOSs are likely to be designated first. All sites will be evaluated under CEQA as appropriate to their existing conditions or planned development.

NEW SITES

It is anticipated that new sites will continue to be developed at either the initiative of site owners, or due to the urging of NMSB users. The WT may also promote the creation of certain new access sites to property owners, if it becomes clear at a future point that such sites would greatly enhance the benefits of the WT or resolve a use conflict. New sites would be evaluated using the same process as for Backbone Sites, including the criteria set forth in the WT Plan. The evaluation would be conducted during the planning phase for the new site, to ensure that it is constructed and operated in a manner that makes it suitable for inclusion in the WT.

Site numbers correspond to Table 2.3.2-1 in the Project Description



**Figure 2.3.2-1
Proposed Water Trail
High Opportunity Sites**

Bay Water Trail GIS data provided by BCDC

GECco Environmental Consulting



2.3.3 WATER TRAIL DEVELOPMENT AND MANAGEMENT STRATEGIES

The WT Plan includes a ‘toolbox’ of strategies. These WT Plan development and management strategies are intended to achieve the goals of the WT; address trail-related access, wildlife and habitat, safety and education issues and needs in a way that would minimize impacts; and enhance the benefits of the WT. The strategies would provide guidance for a diverse audience that would include WT staff and site owners; local, regional, state and federal agencies; non-governmental organizations; and the public. The WT strategies do not modify existing land and resource management laws and regulations. While all strategies apply to all sites insofar as they provide guidance, the application of strategies will differ among sites depending on the specific circumstances of each site.

The strategies were developed as part of the WT Plan, which included input from a large variety of stakeholders, and thus incorporate the needs and concerns of various stakeholders while focusing on the overall priorities laid out in the WT Act. The suite of strategies developed in the WT Plan is intended to be comprehensive enough to facilitate diverse access opportunities and experiences, accommodate needs and constraints of site managers, and provide solutions for the broad range of WT conditions and issues. The strategies in the WT Plan are not mitigation measures (they are part of the project) but in some cases mitigation may include recommendations to modify a strategy, such as adding elements not included in the original strategy description (see “Implementation of Strategies,” below, for more details).

DESCRIPTION OF STRATEGIES

Twenty-four strategies were developed as part of the WT Plan. The strategies can be grouped into the following six categories, each of which is discussed in more detail below:

- Trailhead Location (Strategies 1 and 2)
- Trailhead Facilities (Strategies 3, 5, 8, 9, 10, 11, 12, and 13)
- Wildlife Protection (Strategies 3, 14, 15, 16, 23 and 24)
- Education and Outreach (Strategies 17, 18, 19, 20, 21, and 22)
- Trailhead Maintenance and Operation (Strategies 6, 7, 22, and 24)
- Overall Coordination with Existing Policies, Plans, Programs, and Regulations (Strategy 4)

Some strategies would affect multiple WT development or implementation factors, particularly Strategies 3 and 24, which seek to balance development and use of trailhead facilities with environmental protection. The 24 strategies specifically address four of the eight priorities identified in the WT Act: (1) improving access within and around the Bay; (2) creating site-to-site linkages; (3) protection of wildlife; and (4) providing for overnight accommodations. The other four priorities identified in the WT Act include navigational safety, homeland security, respect for private property owners’ rights, and minimizing adverse effects on agricultural operations. These factors would be addressed through appropriate application of the strategies; for example, siting of locations would consider potential impacts to agricultural operations, and WT public outreach materials would clearly identify privately-owned sites. The strategies include both conceptual, planning-level guidance, and practical implementation recommendations. The 24 strategies are summarized in Table 2.3.3-1; the complete description of each strategy is provided in Appendix D.

TABLE 2.3.3-1 STRATEGIES FOR WT IMPLEMENTATION

No.	Name	Strategy
1	Trailhead Location	Seek opportunities to increase capacity at existing launches or create new access, especially at sites that are most desirable to WT users and where adverse impacts to wildlife and habitat or navigational safety are unlikely.
2	Linking Access Points	Seek opportunities to link trailheads to one another and to other regional trails (e.g., the Bay Trail) and create linkages that serve different trail users' needs and interests.
3	Improvements Consistent with Site Characteristics	Match the type and design of trail-related improvements to the site conditions and likely trail user groups. Ensure that the level of use accommodated provides a high-quality recreational experience, protects the environment and ensures user safety.
4	Consistency with Policies, Plans and Priorities	Coordinate plans for trailhead development, management, and use to be consistent with existing policies, plans and priorities of land and resources managers at and around trailheads.
5	Design Guidelines	Develop and update, as needed, design guidelines for WT-oriented access improvements.
6	Management Resources	Match the facility improvements and use to the management resources available for long-term maintenance and management of the facilities.
7	Maintenance and Operations	Develop a plan for maintenance and operation of trailhead facilities and identify who will be responsible.
8	Parking	Provide parking or drop-off zones as close as possible to launch points, extend parking time to at least four hours, with overnight parking where possible. Where necessary, restrict the number of users and protect shoreline visual character in locating parking.
9	Restrooms	Provide restroom facilities where feasible and appropriate.
10	Accessibility	Develop and improve launch facilities to be in compliance with the Americans with Disabilities Act (ADA) ¹²
11	On-site Equipment Storage	Where feasible and appropriate, provide storage areas and facilities for NMSBs and associated equipment.
12	Non-Profit Boating Clubs and On-site Equipment Concessions	Promote and encourage publicly accessible non-profit boating clubs and/or on-site equipment concessions at appropriate trailheads and facilitate their provision of information on site-specific safety and security, and wildlife and habitat issues.
13	Overnight Accommodations	Develop new campsites at or near trailheads where consistent with land managers' plans and resources. Coordinate with land managers, organizations and businesses to provide overnight accommodations on the trail in motels, hostels, historic ships, etc.
14	Site Review	Conduct, coordinate or sponsor periodic reviews of trailheads to identify site-specific issues such as user conflicts, overuse of facilities or non-compliance with rules, and use this information to improve site management or facilities.
15	Habitat Restoration and Access	Seek opportunities to coordinate trailhead development with habitat restoration, enhancement or creation.
16	Monitoring Impacts	Sponsor pilot projects to monitor trail impacts in different habitats to develop and test effective and consistent monitoring methods and learn about impacts and ways to avoid them. Monitor wildlife and habitat conditions prior to, during, and after inclusion of the site as part of the WT.
17	Outreach, Educational and Interpretative Signage	Provide signage and other media at and near trailheads, consistent with other WT outreach and education materials. Materials should be site-specific in terms of users groups, natural, cultural and historic resources, safety issues and rules.

¹² The wording of this strategy would be corrected, as needed, in the Final WT Plan to reflect compliance with pending ADA-ABA guidelines.

TABLE 2.3.3-1 STRATEGIES FOR WT IMPLEMENTATION

No.	Name	Strategy
18	Outreach and Coordination	Coordinate with and conduct outreach to paddleboat and boardsailing teachers and guides, outfitters, and other WT-related businesses, agencies and organizations to make them aware of boating practices consistent with the WT ethic and policies.
19	Educational Media	Provide a guidebook for using the WT, a WT website, and brochures, maps and other educational media for WT use.
20	Guided Trips	Provide guided trips or tours led by docents or rangers.
21	Boater-to-Boater Education	Coordinate with agencies and boating organizations to facilitate and enhance existing boater-to-boater outreach and education, and incorporate WT-supported information and messages. Train volunteers and WT staff to educate boaters, especially during high-use times of the year.
22	Trailhead Stewards	Recruit and coordinate volunteers to be trailhead stewards to help maintain and manage trailheads.
23	Training for Enforcement	Where feasible and appropriate, provide training to local law enforcement on wildlife and environmental regulations to identify or prevent violations at trailheads.
24	Limitations on Trailhead Use	Establish limits on the number of WT users at a site to prevent impacts to wildlife, habitat, or damage to facilities. Enforce this through either parking restrictions or limits on boating activities and periodic closures when necessary.

LOCATION

Strategies 1 and 2 seek to improve NMSB access opportunities through increasing the capacity at existing sites, adding new sites, and improving linkages between sites and with other regional trails. The two strategies also provide guidance on priorities. Efforts to increase site use capacity or create new sites would be focused on locations that are close to desirable non-motorized small boating conditions and trip destinations, and in areas where trail-related adverse impacts to wildlife and habitat or navigational safety are unlikely. These strategies would be implemented by a combination of site owners and operators, the Project Management Team (PMT), the Advisory Committee, as well as other stakeholders (through participation in Advisory Committee meetings and/or attendance at PMT meetings). (See Section 2.4.2 for definitions of the PMT and Advisory Committee.)

TRAILHEAD FACILITIES

NMSB users have specific access needs and preferences. A fundamental goal of the WT is to improve access facilities for NMSBs. Basic launch requirements for each type of NMSB were described in Section 2.2.3. Strategies 3, 5, 8, 9, 10, 11, 12, and 13 address specific aspects of facilities planning and design, and identify priorities for certain types of facilities. The facilities emphasized in these strategies are those that were identified by NMSB users and organizations as the facilities that would most enhance a boater's likelihood of using a site, and the safety and quality of the experience at a site. These strategies call for:

- Site design that is consistent with site characteristics
- Development of design guidelines
- Provision of facilities that are accessible to those with disabilities, as feasible, and
- As appropriate to the site, provision of parking, restrooms, on-site boat storage, on-site equipment concessions, and non-profit boat clubs

Boarding floats and boat launching ramps would be developed and constructed in conformance with the pending federal ADA-ABA Accessible Guidelines for recreational boating facilities. There are existing guidelines for many types of amenities that may be constructed at a launch or destination site, such as parking areas, restrooms, picnic areas, walkways, railings, and more, that would apply to and be implemented for construction of any such amenities.

These strategies would be implemented by the PMT in collaboration with the Advisory Committee, site owners and managers, and other interested stakeholders.

WILDLIFE PROTECTION

While most strategies address wildlife protection in some manner (to ensure that implementation of the strategies does not cause environmental harm), Strategies 3, 14, 15, 16, 23 and 24 specifically focus on wildlife and environmental protection. The strategies encompass a range of options for ensuring wildlife and environmental protection: design of facilities consistent with local conditions, site environmental review, monitoring of potential impacts, identification of opportunities for habitat restoration, training of local law enforcement to recognize violations of environmental laws, and potential restrictions on site use (if warranted based on the environmental sensitivity of a site). These strategies would be implemented by the site owners and operators, in collaboration with NMSB user groups, non-governmental wildlife and environmental protection organizations, resource and permitting agencies, researchers, and other interested stakeholders.

It should be noted that potential wildlife and other environmental impacts at a trailhead (such as damage to sensitive vegetation) or on the Bay (such as disturbance of wildlife) may be caused by existing NMSB use of that site and/or the many other activities that also occur on the Bay. At multi-use trailheads, for example, other recreationists, including motorized boat users, would pose many of the same concerns that would be posed by NMSB users. This EIR focuses on the potential impacts associated with increased NMSB use *attributable to implementation of the WT Plan*. As discussed earlier, the increase in NMSB use attributable to the implementation of the WT Plan is likely to be very small relative to the existing use and anticipated growth driven by demographic factors. At multi-use trailheads, potential effects specifically associated with WT-related NMSB use would be very difficult to distinguish from effects attributable to other use groups.

EDUCATION AND OUTREACH

Because the WT itself does not have any enforcement capability,¹³ the objectives of the WT would be achieved largely through planning, outreach, education, stewardship, and voluntary application of management strategies by land owners and managers. Strategies 17, 18, 19, 20, 21 and 22 identify means for most effectively conducting outreach and education, and promoting stewardship. “Outreach,” as used in this EIR, refers primarily to information publicizing the WT, and WT messages about responsible boating. “Education” is information directed at NMSB users to help them boat more safely and to be more aware of the environmental impacts potentially

¹³ However, some sites would be located on public property controlled by agencies that do have enforcement authority. The U.S. Coast Guard also has enforcement authority over boating.

associated with NMSB use and how to avoid or minimize those potential impacts. The personal and navigational risks, and environmental concerns potentially associated with each project would be identified during the trailhead designation process, and would be used to develop appropriate educational signage. To ensure recognition of the WT, guidelines pertaining to signage, educational materials and content, and similar programs of the WT must be applied consistently at all sites.

Stewardship may be an outgrowth of education and outreach. NMSB clubs and organizations could act as stewards of trailhead facilities by “adopting” a trailhead and helping to manage use of the trailhead. They could also serve as environmental stewards by conducting habitat restoration in and around WT trailheads, participating in monitoring activities, or providing on-water stewards that promote environmentally sound boater behavior. Strategies pertaining to education, outreach, and stewardship would be implemented by the Conservancy or other suitable organization¹⁴ in collaboration with non-motorized small boating organizations, site owners and managers, other agencies, and other interested participants.

TRAILHEAD MAINTENANCE AND OPERATION

The WT Plan recognizes the importance of maintaining trailhead facilities in good condition. Strategies 6, 7, 22, and 24 are designed to ensure that site owners and managers have the necessary resources to effectively maintain trailheads, and to promote a safe, environmentally sound boating experience. They call for development of maintenance and operations plans for trailhead facilities, trailhead stewards, and possible limitations on use to prevent potential unsafe conditions at a site. These four strategies recognize that resources for maintenance may be limited, and recommend that the level of facilities at any specific trailhead be limited to those that the site owner/manager could reasonably maintain. These strategies would be implemented primarily by the site owners and managers, and could also be carried out by stakeholders interested in maintaining high quality trailheads (e.g., NMSB user groups).

OVERALL COORDINATION WITH EXISTING POLICIES, PLANS, PROGRAMS, AND REGULATIONS

To be effective, the WT must integrate smoothly with existing programs, plans, policies, land uses, and regulations in the local area. Strategy 4 is designed to ensure that implementation of the WT would be coordinated with the appropriate programs and requirements. The WT would not change any of these existing programs, plans, policies, land uses, and regulations. It is the landowner’s responsibility to ensure that proposed improvements are consistent with local and regional plans and policies, and applicable regulations. The PMT (see Section 2.4.2) would provide overall coordination to ensure regional support for proposed NMSB access enhancements and/or new access locations.

IMPLEMENTATION OF STRATEGIES

Implementation of the strategies is part of the WT Plan implementation analyzed in this document. Some strategies serve to reduce the potential effects of WT implementation actions and even other strategies. Chapter 3 of this Draft EIR describes how specific strategies may apply to each of the resources discussed, such as whether a strategy is designed to guide specific

¹⁴ As part of the implementation of the WT, the Conservancy may assign certain implementation and management functions to another suitable organization.

components of the WT, or whether it directly addresses potential trailhead impacts. In Chapter 3, resource-protection-oriented strategies are evaluated to assess whether they would adequately address the potential impacts of WT implementation. Suggested changes to the strategies are provided where required to reduce potential impacts to resources.

The strategies are an integral part of the WT Plan and would be applied during overall planning and on a site-specific basis within the regional framework of the Water Trail. During all phases of WT implementation, including the trailhead designation process, potential WT sites will be reviewed to assure compliance with the WT strategies. For example, certain strategies, such as strategies pertaining to the optimum location of access sites, would be implemented during the overall planning phase, when the PMT is making decisions regarding priorities for trailhead designation and working with other agencies to encourage optimal placement of access sites. Other strategies would be applied during the specific trailhead designation process for a certain access site. For example Strategy 9, pertaining to the availability of restrooms, would be applied at this stage. The PMT, working with the site owner/manager would determine during the trailhead designation process whether it is possible for a site that currently lacks restrooms to add those facilities. The Conservancy may also target funding to support implementation of specific strategies. Finally, certain strategies would be applied after a trailhead is designated; examples include strategies calling for monitoring of site use and trailhead stewards.

The Conservancy and PMT have control over the implementation of strategies during the general planning phase and trailhead designation phase; the site owner/manager would be required to implement strategies associated with trailhead construction and operation as a condition of trailhead designation. If a site owner/manager did not carry out agreed-upon strategies, the PMT would work with him or her to try to rectify the problem. A site could lose its WT designation status if problems related to CEQA compliance or other agreed upon measures were ignored or inadequately addressed. The loss of designated status would be a last resort.

The strategies would be applied within existing regulatory frameworks to help develop and manage NMSB access in a manner that is consistent with these laws and regulations as well as with the WT objectives. Organizations responsible for WT implementation would use the strategies as recommendations to guide funding and trailhead designation decisions, and to assess overall priorities for the WT. Resource managers and regulatory agencies would look to the strategies for guidance on policies related to access. Planning agencies would look to the strategies when considering future access opportunities or proposed changes to existing access locations. Other organizations and members of the public would use the strategies as a basis for advocating for or against development and improvement of trailheads (WT roles and responsibilities are described in Section 2.4.2, below).

2.3.4 SITE FACILITY ENHANCEMENTS

One of the main priorities for the WT is improving access to, within, and around the Bay. One of the primary means of improving access is to provide enhanced facilities: either an improvement of an existing facility, or new facilities. The purpose of facility enhancements would be to make a site more useful or safe to existing or future boaters at the site, or to increase the capacity of the site if the lack of certain facilities or features currently restricts site use. Potential facility

enhancements included in a Trailhead Plan could include a wide range of specific components, such as new or improved:

- On-site or directional signage
- Boat launching ramps, boarding floats, or docks (e.g., new ramps, floats, or docks or modifications to existing launch facilities to improve usability, provide safer access, reduce user conflicts, etc.)
- Rigging areas, including rigging areas located closer to the launch site
- Freshwater boat washing facilities
- Boat storage
- Restrooms, including accessible restrooms
- Parking (including increased or more secure parking, and overnight parking; paving unpaved parking areas; parking located closer to rigging and launch areas; fenced or gated parking)
- Site security (e.g., gated access, lighting, emergency telephones, on-site rangers or site managers, or site hosts)
- Picnic facilities (tables, benches, barbecues)
- Recycling and trash receptacles
- Boat rentals
- Instructional facilities
- Overnight accommodations (camping, lodges, hostels, nearby hotels and motels)
- Restaurants and small shops
- Connections to other recreation options (e.g., creation of a link to the Bay Trail), and
- Lawn areas

There are also several types of functional enhancements that would not require physical construction but may make a site more attractive to NMSB users. These include:

- Availability of guided trips
- Educational activities for boaters
- Improved public transportation linkages
- Improved site management (e.g., a reduction in potential conflicts with other recreationists using the site), and
- Availability of other forms of recreation either at the site, or nearby

The need for facility enhancements would be identified during the trailhead designation process, and/or may already be known to the site owner/manager or users. WT staff may recommend that certain enhancements be included in a Trailhead Plan, but the program has no control over other enhancements that site owners may choose to implement at their own initiative. An unknown number of the enhancements potentially identified through the trailhead designation process would be implemented even in the absence of the WT. The trailhead designation process, however, would provide a more planned and coordinated approach for identifying and implementing useful facility improvements at a given site, and provide a regional context regarding facility needs. Facility enhancements could be funded by the site owner, or through other private or public funding sources.

2.3.5 PUBLIC OUTREACH, EDUCATION, AND STEWARDSHIP

A public outreach, education, and stewardship program would be an essential, integrated element of the WT. Outreach, education, and stewardship would provide the means for achieving many of the objectives of the WT. There is some overlap between the three activities. For example, while outreach is primarily focused on publicizing the WT, outreach materials would contain educational information and stewardship messages. Similarly, educational materials may also be used to inform boaters about the WT, and to encourage them to become involved in stewardship activities. Stewardship activities, in turn, present an opportunity for furthering boater education and awareness of the WT. These three activities would help to cultivate the Water Trail ethic, which teaches and promotes safe, low-impact boating practices and encourages trail users to be stewards of the Bay and the Water Trail.

The WT management team, or another designated organization charged with the task of implementing the outreach, education, and stewardship program, would emulate education, outreach, and stewardship programs that have been successfully implemented by other water trails, and would consult with experts in the field to ensure that any programs developed would be effective. The WT would have a coordinated, multi-media effort to provide consistent and accurate information to trail users. No such comprehensive and integrated approach to non-motorized small boating on the Bay currently exists.

PUBLICITY AND PUBLIC OUTREACH

The WT Plan identifies several means by which the public would be made aware of the existence of the WT, including:

- Media, such as the Internet (WT website), brochures, a guidebook, maps, and occasional newspaper or magazine articles
- A logo and signs to be posted at all sites, and
- Interactive dissemination of information at meetings and classes sponsored by boat clubs, businesses, agencies, and a variety of other organizations focused on non-motorized boating on the Bay

Public outreach materials would include educational messages regarding boater safety, environmental protection, stewardship, and other information as appropriate to the medium and site (for site-specific information).

EDUCATION

Education is the most important factor in creating responsible boaters. Responsible boaters would be aware of and comply with safety and navigation requirements, be aware of and respect wildlife and other Bay resources, and use available facilities in a cooperative and respectful manner. Currently, many of the boating clubs and organizations provide some education to their members; however, there is no coordinated effort to ensure that all NMSB users receive a basic level of education, and that the information provided is sufficiently comprehensive. The education program is also the primary basis for defining and promoting the WT ethic. Objectives of an educational program would include:

- Protecting the safety of WT users and others on the Bay

- Teaching trail users how to boat in a manner that is consistent with protecting wildlife and habitat, and
- Fostering stewardship of the WT and of Bay resources.

Consistent safety education messages would be part of the education and outreach programs and would be supplemented at individual sites by site-specific information about nearby boating hazards, no-boating zones, and other pertinent issues. In addition to the means identified for public outreach, above, educational information could also be delivered via:

- On-the-water education, including guided tours and outings as well as individual boater-to-boater information sharing (see Stewardship, below, for a broader discussion), and
- Posting of pertinent information at boater decision points, as feasible and appropriate

Most key decision points for paddleboaters and board sailors occur on the water. While it is infeasible to install on-the-water signs in most areas of the Bay, indicator buoys or other types of signage may be a viable option for the WT in some locations.

Personal boating and navigational safety, protection of wildlife and sensitive habitat, and stewardship of Bay resources are issue areas that would need to be addressed in the educational program, including the information signs to be incorporated into sites that become designated WT trailheads. The exact language of the signs would differ from site to site, but the messages would be consistent and would include all major topics in proportion to the needs of individual sites. WT signs would conform to the BCDC sign design guidelines and other applicable local and regional sign standards (e.g., NPS signage guidelines for sites located on NPS property and traffic signage standards for signs located along public roads) as required.

To meet the need for both system-wide and site-specific education for boaters, significant gaps in existing education efforts would be identified through interviews with clubs, businesses, associations, and related groups that currently offer some aspect of education about boating on the Bay. Recommendations for expansion, modification, coordination or other changes to what is currently offered would be included in a report based on these interviews and exploration of programs developed by other water trails. The results would be synthesized and presented to the WT managers and stakeholders for their review and comments before the education and outreach program is finalized. This review and synthesis would take place before designation of trailheads begins.

STEWARDSHIP

Stewardship efforts would build on the educational programs of the WT, to encourage NMSB users to physically “care for” or “take care of” Bay resources and access sites themselves. Fostering stewardship of the resources of the Bay would be consistent with other water trail programs (e.g., Washington Water Trail Association and the Maine Island Trail Association) that motivate boaters to participate in responsible management and protection of resources. Stewardship programs would include boater-to-boater education, which may be carried out by docents on the water or at launch sites, and by the organization or sponsorship of special events, classes or tours.

Additionally, stewardship programs could include volunteers “adopting” a trailhead, and helping to maintain (e.g., by participating in site clean-ups) and improve trail facilities (e.g., by improving a path to a launch or planting vegetation). This type of volunteer-based site stewardship would help build a constituency of trail users that cares about and has a sense of responsibility for the condition of the trailhead. In some cases, a constituency that cares about (and for) a trailhead may already exist (e.g., a boating club or group that launches regularly from a specific site, as is the case at Islais Creek in San Francisco). Rather than implement a *de novo* stewardship effort for these sites, the WT could partner with these individuals or organizations to support and promote their ongoing stewardship efforts.

Stewardship of the Bay’s natural resources could also involve active participation in habitat clean-ups or restoration events. This type of stewardship effort would probably not be a formal component of the Water Trail stewardship program, but site restoration is a complementary stewardship activity that falls within the enabling legislation of the Conservancy for the San Francisco Bay region and thus may be fundable by the Conservancy.

2.3.6 OTHER WT PLAN CONSIDERATIONS

As stated earlier, other WT Plan goals include implementing the Plan consistent with respecting private property, and avoiding impacts on agricultural operations. All site owners would have the choice of whether or not to request trailhead designation. Trailhead and/or Signage Plans would ensure that privately-owned sites would be clearly identified as such. WT outreach and publicity materials would also reflect each site’s specific conditions of use. Other private lands adjacent to and near trailhead locations would be protected by local laws and regulations. WT Strategy 4 specifically calls for consistency with existing policies, plans, and procedures, and defines how trailhead designation and other WT activities would consider potential impacts to nearby lands. Most agricultural operations also occur on private lands, and as such are protected by trespassing and other property protection laws.

2.4 Water Trail Plan Implementation

This section describes the expected approach to how the WT Plan would be implemented. The implementation process may be refined in the future if, for example, modifications would streamline the implementation process and/or make it easier to achieve the goals of the WT. Implementation of the WT Plan, including trailhead designation, is dependent on availability of funding. Unless sufficient funding is available to carry out the strategies and mitigation measures described in the WT Plan and in this EIR, the WT Plan cannot be implemented.

2.4.1 WATER TRAIL PLAN IMPLEMENTATION OVERVIEW

Implementation of the WT Plan is expected to consist of five primary tasks that are likely to overlap:

- Designation of Trailheads
- Development of WT signage
- Funding of select WT-related facility improvements
- Coordination of education, outreach, and stewardship programs for NMSB users, and
- Development and distribution of WT information

These activities would be implemented by a wide range of stakeholders. The stakeholders and their primary roles and responsibilities are described in detail below, followed by a description of the tasks required to implement the WT.

2.4.2 WATER TRAIL IMPLEMENTATION ROLES AND RESPONSIBILITIES

Implementation of the WT is designed to be a highly collaborative effort. The WT would have numerous stakeholders who would have key roles in implementation of the WT. Many of these stakeholders are presently conducting the same types of activities as they would for WT implementation and have partially or substantially overlapping responsibilities. During implementation of the WT, there would continue to be some overlap in responsibilities; however, the WT Plan provides added organization and clarity. The main stakeholder groups and organizations would be:

- Site Owners
- Site Managers
- Local, Regional, State, and Federal Government Agencies
- Regulatory and Permitting Agencies
- Wildlife Protection and Resource Management Agencies
- Grant-making (Funding) Agencies
- Navigation Interests
- NMSB Users
- Other Recreationists
- NMSB Participant Organizations/Boat Clubs
- Non-Governmental Environmental and Wildlife Protection Organizations
- Private Citizens
- Waterfront and Water-oriented Businesses
- Experts and Scientific Researchers
- Project Management Team, composed of:
 - California State Coastal Conservancy
 - Bay Conservation and Development Commission
 - California Department of Boating and Waterways
 - Association of Bay Area Governments (ABAG)
- Advisory Committee

The expected roles and responsibilities of the various stakeholder groups are described below, and summarized in Table 2.4.2-1.

SITE OWNERS AND SITE MANAGERS

There are more than 50 local, regional, state, and federal government jurisdictions along the margins of the Bay that may have WT trailheads. In addition to these government jurisdictions, WT trailheads may also be located on private property. The 112 proposed WT Backbone Sites are managed by over 50 site owners/managers who currently manage, maintain and improve these sites consistent with their personal or their organization's missions and available funding. Site owners would continue their current responsibilities once the WT is implemented. In

TABLE 2.4.1-1 WATER TRAIL IMPLEMENTATION ROLES AND RESPONSIBILITIES		
Stakeholder Category	Stakeholders Included in Category	Responsibilities
Site Owners/ Managers	<ul style="list-style-type: none"> • Cities • Counties • Parks and Open Space Districts • California Department of Parks and Recreation (State Parks) • Port Authorities • DFG • NPS • USFWS • Marinas (public and private) • Private individuals and businesses with docks available for public use 	<ul style="list-style-type: none"> • Maintain and manage existing sites • Participate in trailhead designation process, including development of Site Description and/or Trailhead Plan and PMT/Advisory Committee meetings (as Stakeholder) • Identify needed facility improvements • Identify potential new sites • Apply for funding • Implement CEQA and other regulations pertaining to site facility improvements and new site development, as required • Implement WT Strategies and mitigation measures applicable to site owners • Enforce compliance with applicable rules and regulations at the trailhead • Work with other stakeholders such as boat rental companies, boat clubs
Local, Regional, State, and Federal Public Agencies	<ul style="list-style-type: none"> • Local: cities, parks and open space districts, port authorities • Regional: counties, districts, ABAG, BCDC, RWQCB • State: DFG, Conservancy, State Land Commission, State Parks • Federal: USCG, USFWS, National Oceanographic and Atmospheric Administration (NOAA)-Fisheries, NPS, Corps of Engineers, California Coastal Commission 	<ul style="list-style-type: none"> • Incorporate goals of the WT into planning efforts (e.g. General Plan updates) and land use decisions • Provide funding for continued maintenance and operation of existing sites, including adequate funding and personnel to ensure safety and necessary enforcement activities • Fund improvements of existing sites and creation of new sites
Regulatory and Permitting Agencies	<ul style="list-style-type: none"> • USCG • BCDC • RWQCB • DFG • Corps of Engineers • USFWS • NOAA Fisheries • Cities • Counties 	<ul style="list-style-type: none"> • Review/approve permit applications related to site improvements • Provide information on safety and health hazards as needed (USCG, RWQCB) • Enforce compliance with regulations and permit conditions • Cities and counties may serve as CEQA lead agency for improvements at private sites, as needed
Wildlife Protection and Resource Management Agencies	<ul style="list-style-type: none"> • DFG • USFWS • NOAA Fisheries • Resource Conservation Districts • RWQCB • Bay-Delta Program Authority 	<ul style="list-style-type: none"> • Provide guidance on management and implementation practices to minimize adverse impacts to wildlife and natural resources from WT implementation and NMSB use in the Bay • Provide guidance on and/or require seasonal closures and other protective measures, as needed, to protect sensitive species

TABLE 2.4.1-1 WATER TRAIL IMPLEMENTATION ROLES AND RESPONSIBILITIES		
Stakeholder Category	Stakeholders Included in Category	Responsibilities
Grant-making (Funding) Agencies	<ul style="list-style-type: none"> • Conservancy • Cal Boating • Non-Profit Organizations 	<ul style="list-style-type: none"> • Identify funding priorities • Review and approve applications for funding consistent with availability of funding and priorities for funding • Make existence of funding availability known to appropriate potential recipients • Fund enhancements of existing sites and creation of new sites • Fund education, outreach, and stewardship programs
Navigation Interests	<ul style="list-style-type: none"> • San Francisco Bay Region Harbor Safety Committee • Large vessel operators (including container shipping lines, cruise lines, tankers, oil barges, dredgers, tugs, and commercial fishers) • Ferry operators and ferry system administrators and managers (including the Water Emergency Transportation Authority) • Commercial recreational boating enterprises (e.g., deep sea fishing, whale watching, and Bay cruises) • Harbor Masters and Port Captains • Motorized recreational boat users • Large sailboat users 	<ul style="list-style-type: none"> • Provide expertise regarding navigation concerns
NMSB Users (Individuals)	<ul style="list-style-type: none"> • Any participant in NMSB activities 	<ul style="list-style-type: none"> • Advise on trailhead design to best serve different NMSB users' needs • Identify user safety issues during trailhead design • Provide advice on development of education, outreach, and stewardship programs • Lead or participate in boater education programs (safety and environmental protection) • Participate in stewardship programs (trailhead stewardship, environmental stewardship) and WT events
Other Recreationists	<ul style="list-style-type: none"> • Birders • Hikers • Campers • Hunters • Anglers 	<ul style="list-style-type: none"> • Participate in stewardship programs (trailhead stewardship, environmental stewardship) at multi-use trailheads • Identify site-specific issues and assist in trailhead design during the trailhead designation process
NMSB Participant Organizations/Boat Clubs	Includes all organizations/clubs dedicated to promoting any NMSB activity, and/or supporting NMSB users. Also includes teams. A detailed list of these organization is provided in Section 3.3.	<ul style="list-style-type: none"> • Advise on trailhead design to best serve different NMSB users' needs • Identify user safety issues during trailhead design • Provide advice on development of education, outreach, and stewardship programs • Conduct boater education programs (safety and

TABLE 2.4.1-1 WATER TRAIL IMPLEMENTATION ROLES AND RESPONSIBILITIES		
Stakeholder Category	Stakeholders Included in Category	Responsibilities
		<ul style="list-style-type: none"> environmental protection) Develop and implement stewardship programs (trailhead stewardship, environmental stewardship)
Non-Governmental Environmental and Wildlife Protection Organizations	Includes all organizations dedicated to the protection of specific species, endangered species, habitat conservation, water quality protection, and more. May also include organizations with multiple environmental protection objectives (e.g., the Sierra Club).	<ul style="list-style-type: none"> Develop and implement environmental education and stewardship programs Identify concerns/issues for wildlife and natural resources Advise PMT on implementation practices to minimize adverse impacts on wildlife and natural resources.
Private Citizens	<ul style="list-style-type: none"> Nearby residents Other interested citizens who do not participate in NMSB activities 	<ul style="list-style-type: none"> Share concerns or ideas relevant to specific implementation issues
Waterfront and Water-oriented Businesses	<ul style="list-style-type: none"> Private marina owners/operators Tour operators Restaurant owners Boat sellers Boating instruction, storage, and rental providers Other concessionaires 	<ul style="list-style-type: none"> Provide the perspective and represent the interests of businesses directly or indirectly associated with NMSB use
Experts and Scientific Researchers	<ul style="list-style-type: none"> Experts in environmental and wildlife protection NMSB experts Researchers conducting studies pertaining to environmental and wildlife protection, recreation, and recreation/wildlife interaction Design and accessibility experts Education and public outreach experts 	<ul style="list-style-type: none"> Provide expert opinion when requested by Advisory Committee or PMT Conduct monitoring when requested by site owners (as feasible based on funding)
Project Management Team	<ul style="list-style-type: none"> ABAG BCDC Cal Boating Conservancy 	<ul style="list-style-type: none"> Develop trail projects with site owners/managers Develop recommendations on trail design and management Designate or undesignate trailheads Determine and prioritize project and program objectives Implement applicable WT Plan Strategies
Advisory Committee	The Advisory Committee to the PMT will be comprised of selected representatives from 13 different interest areas. ¹⁵	<ul style="list-style-type: none"> Advise the PMT on trailhead designation and other implementation issues

¹⁵ Other individuals from those same interest areas may participate in PMT/Advisory Committee meetings as stakeholders.

TABLE 2.4.1-1 WATER TRAIL IMPLEMENTATION ROLES AND RESPONSIBILITIES		
Stakeholder Category	Stakeholders Included in Category	Responsibilities
State Coastal Conservancy ¹⁶	N/A	<ul style="list-style-type: none"> • Conduct CEQA review for WT Plan • Revise and approve WT Plan • Provide WT staff • Develop WT signage program elements with PMT/Advisory Committee • Lead Project Management Team and Trailhead Designation process • Oversee development and implementation of educational program(s) • Oversee development and implementation of WT outreach/publicity materials and publicity/public outreach, including development of logo • Provide funding for select WT site improvements, as available • Maintain on-going relationships with other WT projects around the country to provide for continuous improvement of the San Francisco Bay Area WT • Develop or oversee development of prototype stewardship programs • Advocate for inclusion of WT goals in local and regional planning and funding decisions • Manage/track compliance of WT with WT Plan Strategies • Manage CEQA Mitigation Monitoring and Reporting program for WT Plan • Stay informed about pertinent new scientific information regarding environmental resources potentially impacted by the WT, and work with site owners/managers as needed to respond to this new information
San Francisco Bay Conservation and Development Commission	N/A	<ul style="list-style-type: none"> • Develop Draft WT Plan (completed 2007) • Participate in Project Management Team • Participate in Trailhead Designation process • Advocate for inclusion of WT goals in local and regional planning and funding decisions • Promote WT goals through permit decisions
California Department of Boating and Waterways	N/A	<ul style="list-style-type: none"> • Participate in Project Management Team • Participate in Trailhead Designation process • Develop education materials specific to non-motorized small boaters • Develop design guidelines for boat launching ramps, boarding floats, and other launching facilities that comply with the pending ADA-ABA Accessible Guidelines • Provide funding for select WT site improvement

¹⁶ The Conservancy may designate another appropriate entity to carry out some of these responsibilities.

TABLE 2.4.1-1 WATER TRAIL IMPLEMENTATION ROLES AND RESPONSIBILITIES		
Stakeholder Category	Stakeholders Included in Category	Responsibilities
		<ul style="list-style-type: none"> • Provide coordination between motorized and non-motorized small boating communities
Association of Bay Area Governments	N/A	<ul style="list-style-type: none"> • Participate in Project Management Team • Participate in Trailhead Designation process • Coordinate WT Trailhead designation and development with Bay Trail planning and development

addition, they would participate in trailhead designation, implement CEQA¹⁷ for any WT-related improvements (as needed), and apply for funding for enhancements, as appropriate. Some site owners may have multiple management roles. For example, the California Department of Fish and Game (DFG) is a site owner, is responsible for wildlife and native plant protection in California, manages hunting on its lands, and also regulates certain construction activities near creeks and other waterways.

LOCAL, REGIONAL, STATE, AND FEDERAL PUBLIC AGENCIES

Local, regional, state, and federal public agencies carry out multiple functions with respect to NMSB use. They may plan for and provide access, regulate access and boater behavior, provide funding for facility improvements, enforce laws, and issue permits. These agencies would continue in their existing roles when the WT is implemented. Four agencies, including the Conservancy, BCDC, Cal Boating and ABAG would have increased responsibilities once the WT is implemented (see description of Project Management Team, below).

REGULATORY AND PERMITTING AGENCIES

Regulatory and permitting agencies are responsible for ensuring that activities conducted in and around the Bay conform to existing environmental requirements. Certain types of construction activities and facility operations are currently subject to permitting or regulations, and would continue to be subject to the same permit and regulatory requirements. For example, stormwater management is under the purview of the San Francisco Bay Regional Water Quality Control Board (RWQCB), and BCDC regulates development within its jurisdiction. The USCG regulates navigation and enforces navigation rules on the Bay. The roles and responsibilities of these agencies would not change due to implementation of the WT.

WILDLIFE PROTECTION AND RESOURCE MANAGEMENT AGENCIES

Wildlife protection and resource management agencies are responsible for providing stewardship of the Bay's natural resources. These agencies may have permitting or other regulatory powers to limit development and construction activities, or modify proposed development and construction activities to reduce potential impacts to habitat and/or sensitive species. In addition, these agencies may conduct or require monitoring of potential impacts to habitats or specific species, and develop plans to promote recovery of endangered and threatened species. Wildlife protection

¹⁷ Private owners would provide information and documentation to a CEQA lead agency as needed.

and resource management agencies would continue to serve in their current roles once the WT is implemented.

GRANT-MAKING (FUNDING) AGENCIES AND ORGANIZATIONS

While implementation of the WT Plan is intended to facilitate the authorization of funding for select facility enhancements that would further the goals of the WT, there is no designated, guaranteed source of funding for facility enhancements or any other WT activity. Various grant-making agencies, including the Conservancy and Cal Boating, and various non-profit organizations, may currently make grants for facility enhancements that promote NMSB access to the Bay. These grant-making activities would continue and possibly increase with implementation of the WT.

NAVIGATION INTERESTS

Non-motorized small boating comprises only a portion of the highly varied boat traffic on San Francisco Bay. Other navigation interests run the gamut from agencies that regulate navigation (USCG, Cal Boating) to owners of motorized vessels of all types, and owners of large sailboats. This category also includes Ports. The roles and responsibilities of this category of stakeholders would remain the same with implementation of the WT.

NMSB USERS

This category of stakeholders consists of all participants in NMSB activities. A portion of this group belongs to NMSB clubs or other NMSB organizations. This group also includes casual participants (e.g., individuals who may periodically rent a kayak or other NMSB from a local outfitter). The WT is designed to help this group of stakeholders become more informed, safe, and environmentally sensitive boaters. With implementation of the WT, these users would have enhanced access, more information regarding various access sites, greater access to education, and potentially greater opportunities for stewardship.

OTHER RECREATIONISTS

Most trailheads would be used by multiple user groups, including motorized boat users. Parks, wildlife areas, and open spaces may be used by anglers, hikers, bicyclists, campers, and hunters. On the water, NMSB users may again encounter motorized boat users, including anglers, hunters, water skiers, personal water craft riders, and other motorized boat users. Other recreationists would be interested in ensuring that their priorities are also considered when a public agency expends funds to promote recreational access to the Bay. The roles and responsibilities of other recreationists would remain the same with implementation of the WT.

NMSB PARTICIPANT ORGANIZATIONS/BOAT CLUBS

There are numerous organizations supporting and advocating for NMSB use. These organizations have different goals and objectives. They may disseminate information regarding opportunities for participation in specific NMSB sports; provide boating instruction, and safety and environmental education and training; advocate for improved facilities for specific sports; and serve as forums for existing non-motorized small boating participants. These organizations would continue to serve in their existing roles. Depending on their capabilities and desire to take on additional responsibilities, some of these organizations may provide more formalized environmental education, and environmental and trailhead stewardship.

NON-GOVERNMENTAL ENVIRONMENTAL AND WILDLIFE PROTECTION ORGANIZATIONS

Non-profit environmental and wildlife protection organizations work with local, state and federal agencies to promote protection of specific types of species and/or to support restoration, purchase, and creation of critical habitat. Many of these organizations also raise money to support sensitive species protection and conduct public outreach and education regarding their work. Some of these organizations conduct wildlife research and surveys. During implementation of the WT, non-governmental environmental and wildlife protection organizations would continue to serve as an educational resource and as advocates for sensitive species and habitat protection.

PRIVATE CITIZENS

Trailheads will be located in many different locations, and may affect Bay Area residents that do not participate in NMSB activities. For example, nearby residents may be concerned about the number of NMSB users using a specific trailhead.

WATERFRONT AND WATER-ORIENTED BUSINESSES

Some sites are owned by private businesses, such as private marinas and restaurants. These private site owners may elect to have their sites designated as WT trailheads (see discussion of site owners). Other businesses that would provide services to potential WT users include rental equipment providers, instructional facilities, boat sellers, boat storage providers, restaurants or hotels/hostels/campgrounds and other concessionaires at or near a trailhead. Waterfront and water-oriented businesses would continue to serve in their current roles once the WT is implemented.

EXPERTS AND SCIENTIFIC RESEARCHERS

Various local environmental experts and scientific researchers continue to study the Bay and its resources, as well as impacts of recreational activities on the Bay. Trailhead Plans and designation decisions may at times require input from experts. Researchers may be called upon to help develop monitoring programs, site-specific mitigation, or avoidance measures. The WT may also draw on experts in the fields of recreation and accessible design to assist site owner/managers with creating facility improvements that comply with the pending ADA-ABA Accessible Guidelines. Public outreach and community education experts could provide valuable input into the educational and public outreach programs to be developed by the WT, and could provide guidance on how the WT could most effectively coordinate existing outreach and education efforts.

PROJECT MANAGEMENT TEAM

The PMT would have the primary responsibility for implementing the WT Plan. It would consist of representatives from the Conservancy, BCDC, Cal Boating, and ABAG. The PMT would engage and consider all relevant major interests in decision-making and would seek input from the relevant interests among the Advisory Committee and Stakeholder Group (see below) as needed to address issues that arise. The PMT would meet with the Advisory Committee on a regular basis, and solicit Advisory Committee input on trailhead designation and other WT issues. The PMT and/or Advisory Committee would also identify instances in which additional input and expertise are needed. Detailed information regarding the roles and responsibilities of the four agencies comprising the PMT is provided in Table 2.4.2-1.

ADVISORY COMMITTEE

The Advisory Committee would be a stable group of representatives of major trail interests who meet regularly with the PMT and are available individually for consultation on a consistent basis. The Advisory Committee would not include all interests and expertise that may be needed for any and every trail issue or project. The PMT and/or Advisory Committee would identify instances in which additional input and expertise may be needed. The WT Plan recommends the following members for the Advisory Committee:

- Accessibility expert
- Bay Access, Inc.
- California Association of Harbor Masters and Port Captains
- DFG
- State Parks
- County or local parks
- East Bay Regional Parks District
- Hospitality industry
- Outfitter/tour guide
- NPS
- Save the Bay
- USCG
- USFWS
- Wildlife and habitat protection organization

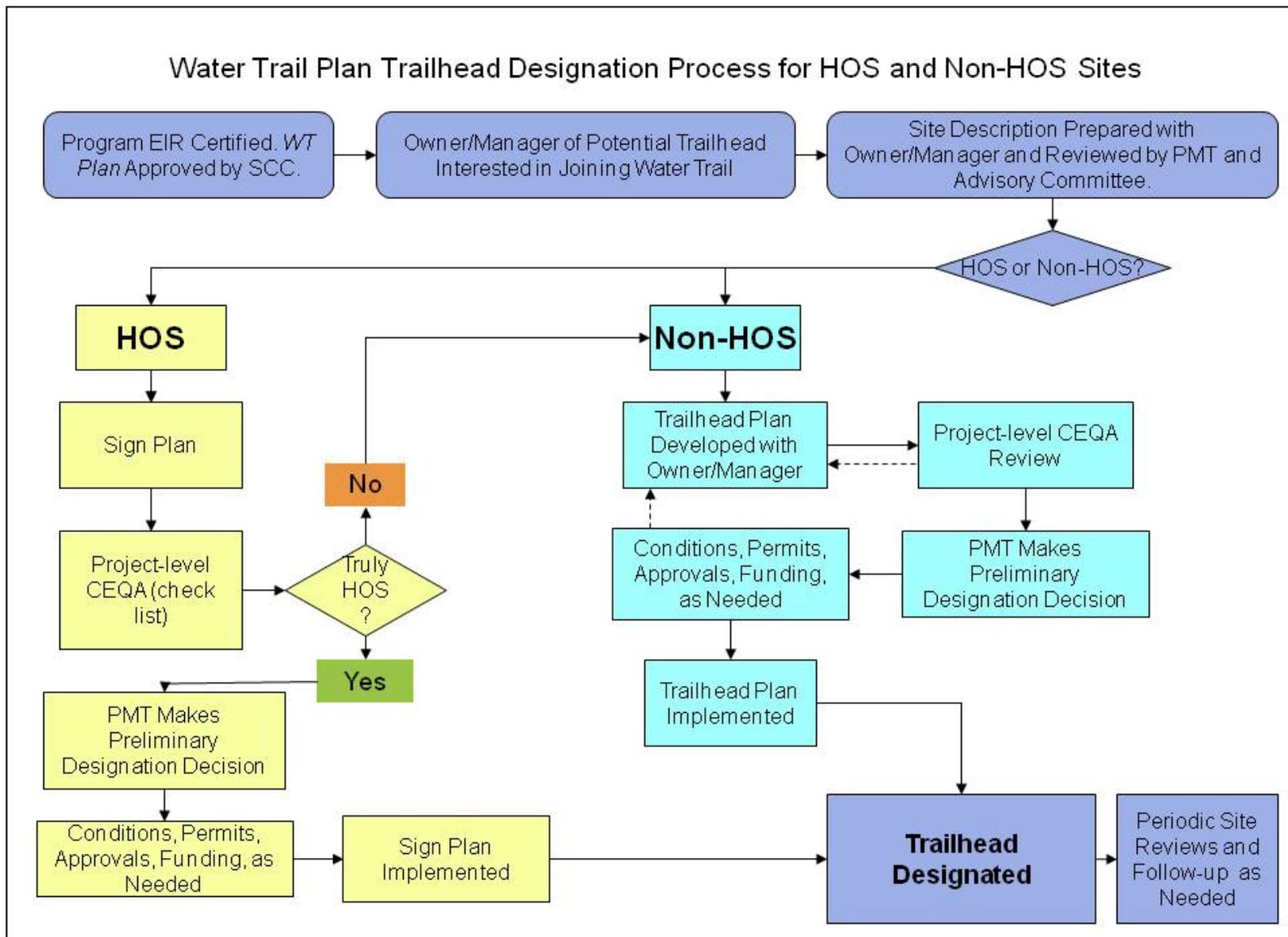
The PMT would request participation on the Advisory Committee by specific organizations or representatives of these interests, and/or other interests, as appropriate.

STAKEHOLDER GROUP

Stakeholders are all interested agencies, organizations, and individuals who would like to participate, at their discretion, in WT meetings and provide input to the PMT and Advisory Committee. The members of the Stakeholder Group would participate when there is an issue or project of interest to them, or if the Advisory Committee or PMT specifically asks for their input and involvement.

2.4.3 TRAILHEAD DESIGNATION PROCESS

Trailhead designation would begin after finalization and certification of this EIR. Trailhead owners/managers would join the WT network on a voluntary basis. The trailhead designation process is expected to be similar for all sites; however, the process would be more streamlined for High Opportunity Sites. This is because, by definition, HOSs are sites where the only physical construction required to meet the trailhead designation criteria is the addition of signage. The evaluation conducted during the initial steps of the designation process would confirm that a site currently classified as an HOS meets the HOS criteria. The initial evaluation may also identify sites that are not currently classified as HOSs that do meet the criteria of a High Opportunity Site. The steps in the trailhead designation process are illustrated in Figure 2.4.3-1. The first three steps would be the same for all sites.



Note: HOS = High Opportunity Site. See Section 2.4.2 for detailed description of designation roles and responsibilities.

Figure 2.4.3-1: Trailhead Designation Flowchart

In the case of HOSs, a Sign Plan would be developed rather than a full Trailhead Plan. An environmental effects checklist customized for the Water Trail would be used to assure WT staff that designation of the site and placement of signage would not cause potential significant effects. (A preliminary draft of this customized checklist is included in Appendix E.) This step would be necessary because conditions at HOSs could have changed since Backbone Sites were evaluated during the Water Trail planning process (2005-2007). If such effects were found, the potential trailhead would be reclassified from an HOS to a non-HOS and would be evaluated as a non-HOS. For sites remaining in HOS status, any approvals, permits, or other required authorizations would be obtained by the site owner/manager, the Sign Plan would be implemented, and the site would be officially designated by the PMT as a Water Trail trailhead.

In the case of non-HOSs, site descriptions would be developed into much more detailed Trailhead Plans (including planning for signs/educational materials) with site-specific CEQA reviews. As explained in more detail below, this Program EIR is expected to cover much, if not all, of the environmental review needed for many of the Backbone Sites (HOSs in particular), and some sites have already been evaluated under CEQA (and NEPA) by site owners/managers and may not need any further analysis. Nonetheless, in all cases, the Trailhead Plans for all non-HOSs would be reviewed by the PMT with the Advisory Committee and other experts as needed to determine the adequacy of the CEQA analysis as it relates to the site becoming part of the WT. The site owner/manager, if a public entity, or, if not, another public entity issuing a permit, funding or otherwise taking discretionary action with respect to the site, would be the lead for any additional CEQA analysis needed beyond this Program EIR, and that analysis could lead to modification of the Trailhead Plan and/or modification of conditions needing to be met before trailhead designation could take place.

The trailhead designation process would be managed by the PMT, with assistance from the Advisory Committee, site owners/managers, and members of the Stakeholder Group, as appropriate. PMT meetings would be open to the public.

INITIATING THE TRAILHEAD DESIGNATION PROCESS

The PMT would notify potential trailhead site owners/managers about finalization of this EIR and approval of the WT Plan, and inquire whether they would be interested in having their site designated as a WT trailhead. Some site owners/managers may approach the WT about designation of their sites. It is anticipated that the PMT would initially prioritize its review of the potential trailhead sites based both on the level of review required (e.g., HOSs first) and how well the site would fulfill the goals of WT Strategies 1 and 2 pertaining to trailhead location.

DEVELOPMENT OF THE SITE DESCRIPTION

Once a site owner expresses interest in having a launch or destination site designated as part of the WT, WT staff and the site owner/manager would prepare a Site Description. The Site Description would provide enough information for the PMT and Advisory Committee to understand the existing and planned features of the site, and any trail-related issues. The Site Description would also address the topics shown in Table 2.4.3-1 (as they apply to a specific site). The Site Description would include completion of an environmental effects checklist (see preliminary draft in Appendix E) to evaluate whether the site meets HOS criteria (see discussion of CEQA review during the trailhead designation process, below). After a site has been

TABLE 2.4.3-1 SITE DESCRIPTION COMPONENTS

Information Category	Types of Information Provided in Site Description
General site information	Location, ownership and manager
Maps, site pictures, plans and/or drawings (if applicable)	Existing site facilities and features Habitat areas Location of various uses on the site Proximity to other launch and destination sites
Manager's/owner's goals for the site	Site master plans, use plans, general plan policies, and zoning
Use of the site	Boating and non-boating uses
Description of existing or planned facilities, and compliance with pending ADA-ABA Accessible Guidelines	Launch (type[s] of launch[es] or landing[s]) Current and expected user groups and usage Parking (amount available for trail-related use, restrictions, fees, drop-off spots, distance to launch) Restrooms (number, type) Other boating-related facilities (such as staging areas, boat storage, or wash stations) Overnight accommodations Signage
Education, outreach and stewardship	Description of existing and planned programs
Description of existing and planned site management	Maintenance staffing levels Maintenance provided Level of management (e.g., pick up trash only, or active enforcement of user behavior)
Physical access considerations	Nearby good boating areas User conflicts Availability of public transportation; Security concerns/vandalism
Wildlife and habitat considerations	Nearby harbor seal haulout or other sensitive wildlife or habitat area Wildlife viewing or interpretive opportunities
Safety considerations	Strong currents nearby Adjacent to a safety exclusion zone Water quality concerns Navigational risks
Other existing and/or anticipated WT-related issues and opportunities	

designated, WT staff would use the site description information as the basis for additions to education and outreach materials. WT staff would present the Site Description at the PMT/Advisory Committee meeting. Development of the Site Description would include verification of site conditions, including the presence or absence of sensitive resources in the vicinity of the site. This step is crucial to ensure that a site is correctly classified as a HOS or non-HOS, because the location of sensitive resources may change over time. Verification would likely be accomplished using existing information, such as a review of current literature, communication with regional resource agency personnel, photo review and/or site visits.

DEVELOPMENT OF A SIGN PLAN (HOSS)

For sites meeting the HOS criteria, a Sign Plan will be developed to accompany the Site Description. Signage is the only added requirement for designation of a HOS as a WT trailhead, and would be developed in accordance with the WT signage program (see Section 2.4.4). Signage would convey safety and environmental information, as well as general information about the WT, and would be developed to complement existing signage at the trailhead. Directional signage would also be developed, and installed as appropriate.

Signage may require a BCDC permit. Certain site owners have existing signage permits applicable to all their properties; however, most would be required to apply for an amendment to an existing permit, or an administrative permit if there is no existing permit that addresses signage. Even if there is an existing permit, review of the sign plans would still be required by BCDC. All WT signs would conform to BCDC signage guidelines as required. Sign Plans for non-HOSs would be developed as part of the Trailhead Plan. The information that must be included on signage for non-HOSs would be defined in part through the development of the Trailhead Plan and associated CEQA review.

ADVISORY COMMITTEE REVIEW

The Advisory Committee would provide input on the Site Descriptions, Sign Plans, and Trailhead Plans. In its review of a non-HOS, the Advisory Committee would make suggestions to the PMT on trailhead design, development and management, and could identify additional stakeholders and experts to consult. Recommendations would focus on how the WT strategies could be most effectively applied to the proposed trailhead. The Advisory Committee's review would also include an evaluation of whether the Sign Plan conforms to the WT guidelines.

The Advisory Committee would not be approving or denying sites for inclusion into the WT, but the recommendations from the Advisory Committee would be seriously considered by the PMT. All of the meetings at which decisions will be made about trailhead designation would be open to the public.

EXPANSION OF THE SITE DESCRIPTION INTO A TRAILHEAD PLAN

For all Backbone Sites (and any sites potentially designated in the future) that do not meet the criteria of an HOS, the Site Description would be expanded into a "Trailhead Plan," which would include an appropriate Sign Plan. WT staff would work with the site manager to develop the Trailhead Plan, which would address a range of issues related to site improvements, management, maintenance, education, outreach, stewardship, and any other issues that pertain to that site, including issues identified by the PMT, Advisory Committee, other experts, and stakeholders. The Trailhead Plan would also describe how its proposed components would support the vision and goals of the WT Plan. As described earlier, potential WT sites will be reviewed to assure compliance with the WT strategies. The Trailhead Plan would focus only on the uses and features of the site that are or could be used by NMSB users. Additionally, the plan would identify who would be responsible or take the lead for implementing the proposed components. It would also include an operations and maintenance plan to ensure that adequate resources are available to manage and maintain the trailhead and any new or improved facilities. The Trailhead Plan would include a budget describing funding that the site manager has for the site or is seeking for the trailhead development, if any.

Consideration of the WT strategies would form an integral part of developing the Trailhead Plan. For example, the strategies would provide guidance on the types of facilities that may be desirable at trailheads or the types of wildlife and habitat protection measures that should be put in place at given sites. The Trailhead Plan would then apply that guidance in a practical, explicit way, as appropriate to the individual site and/or as directed by a mitigation measure integrated into the implementation of the Water Trail Plan through this EIR or through other CEQA review. As another example, the strategies would help shape the types of educational information or stewardship practices that would be provided at a site, as well as the means by which that information would be provided. The Trailhead Plan is designed to apply the guidance provided in the strategies and WT Plan in general in specific ways, appropriate to the specific site.

CEQA AND NEPA REVIEW DURING THE TRAILHEAD DESIGNATION PROCESS

HOSs were identified based on available information at the time the WT Plan was developed. More detailed review of site-specific conditions and/or changes in site-specific conditions may lead to the conclusion that a site previously designated as an HOS no longer meets the HOS criteria. Similarly, closer review of a proposed WT site that was initially classified as not meeting HOS criteria may be determined to meet HOS criteria. WT staff would prepare an environmental effects checklist (Preliminary Environmental Effects Checklist for Trailhead Designation Process or “Checklist”) to identify site characteristics, to specify the potential impacts associated with the designation of the site, and to identify the mitigation measures needed, if any, under the EIR to avoid or reduce any effects to a less-than-significant level. The Checklist and the description of the site would be used to assess whether a site meets the HOS criteria. The Checklist would then be used to determine whether the designation of the site will require additional environmental documentation either because the environmental effects associated with the site designation or the measures needed to avoid or reduce that effect were not fully considered by the EIR.

The Checklist would be tailor-made for this EIR and the WT project and would include the potential environmental effects of site designation that have been assessed under this EIR and the associated mitigation measure proposed by the EIR to avoid or reduce the specific potential effects. For any potential effect associated with the site designation, the respective mitigation measures required by the EIR for that effect would be included within the Trailhead Plan. While this EIR in combination with the Checklist may be all that is needed to demonstrate CEQA compliance for trailhead designation for HOSs (i.e., where no potentially significant impacts are identified), designation of other Backbone Sites (or future sites) would likely require additional CEQA documentation beyond the review provided under this EIR. A preliminary draft of the Checklist is provided in Appendix E.

CEQA review for trailhead designation does not replace the site-specific CEQA review required if new facilities will be constructed. For such sites, if the site owner/manager is a public entity, it would be the CEQA lead for site-specific environmental compliance. If the site owner/manager is a private person or entity, then the lead agency would be the agency that is permitting, funding or taking any other discretionary action regarding the site. Some sites (such as HOSs, which only require signage) may require CEQA review only to address the trailhead designation process.

After this Draft Programmatic EIR is finalized and certified, the CEQA lead agency may tier site-specific projects off of it. Additional environmental review would be limited to any new “effects” that were not covered in the Final Programmatic EIR, any new mitigation measures beyond those required by this EIR for those effects or any effect that is more severe than anticipated and assessed in this EIR. The lead agency may use the proposed Checklist to make these determinations.

Some sites may have existing CEQA documentation that addresses the actions required for trailhead designation. To the extent that additional CEQA documentation is required for designation of the site (i.e. if the site has different effects, more severe effects, or requires mitigation not fully addressed in this EIR), a public agency in the designation process may utilize that existing CEQA documentation in order to meet the requirements of CEQA for the designation. Determination of whether this EIR and the existing CEQA documentation collectively satisfy the requirements of CEQA for purposes of designation would be made by involved public agencies on a site-specific basis during the trailhead designation process.

For potential WT sites located on federal lands or managed by a federal agency, the federal agency would be required to comply with NEPA with respect to the designation or improvement of a WT site. The Final Programmatic EIR for the WT may be used by the federal agency as a source document in undertaking environmental assessment or more detailed review under NEPA of the proposed designation or other activity related to the WT site.

PROJECT MANAGEMENT TEAM REVIEW AND DECISION

The PMT would review the Site Descriptions, and Sign Plans and/or Trailhead Plans (as applicable to the various sites), and make the final decisions regarding designation of each individual site as a WT trailhead. The Trailhead Plan or Sign Plan and any funding needs from the site owner/manager would be presented by WT staff for consideration by the PMT. The Trailhead Plans would include a summary of the Advisory Committee’s comments on the proposed site. In its meeting, the PMT would review the Trailhead Plan or Sign Plan and decide whether to designate the site as a trailhead. All of the meetings at which decisions will be made about trailhead designation would be open to the public.

Trailhead designation decisions, although guided by expert input from the Advisory Committee and other stakeholders, would be made by the PMT and only when fully supported by the owners/managers of each site and only after the requirements of CEQA have been satisfied. If the PMT and/or Conservancy board considers the environmental effects associated with the site under consideration to be inadequately assessed or mitigated, more environmental review would be needed, and the site owner or manager may need to carry out certain actions before the site would actually be designated. If all impacts or effects have been fully considered and adequately mitigated, designation would proceed.

The installation of an educational sign or its equivalent (such as integration of new information into an existing sign or information structure) would be a condition of trailhead designation. At non-HOSs, Trailhead Plans could have phased implementation, and trailhead designation could occur after the initial (minimum specified) components are implemented. While the PMT’s sole decision would be whether or not to designate a site as a trailhead, the PMT may also make

recommendations regarding funding requests to the Conservancy, Cal Boating, or other agency or non-profit organizations for development of certain features of a trailhead. Incorporating sites into the WT could influence funding decisions by grantors regarding those sites.

OTHER PROJECT APPROVALS

Outside of the trailhead designation process, site managers may seek other approvals, such as a permit from BCDC for signage or other site improvements. BCDC will apply its policies on recreation and wildlife to any trailhead improvement projects requiring a permit. This process also includes consideration of existing and pending accessibility requirements. The reviews by the Advisory Committee, PMT, WT staff and other stakeholders and experts would help flag issues that may be important in these other permitting or approval processes. There may be cases, however, in which the site manager needs to modify the Trailhead Plan to comply with requirements or requests from these other agencies granting permits or approvals. If the changes substantially alter the Trailhead Plan, then the project would go back to the PMT for additional review and decision about designation. The decision to submit the revised Trailhead Plan for further review would be made by the site owner/manager and WT staff. If, after implementation of improvements, the site owner or manager does not fulfill other components of the Trailhead Plan, then the site would not be designated.

TRAILHEAD PLAN IMPLEMENTATION

Once the Trailhead Plan has been developed, it would be the responsibility of the site owner/manager to implement the plan, including obtaining all necessary permits and approvals, and conducting any necessary CEQA review, as described above. All mitigation would be performed in accordance with the roles and responsibilities identified in the CEQA review. WT staff would serve as a liaison with the site owner/manager regarding implementation of the Trailhead Plan. WT staff would use their knowledge of the Trailhead Plan implementation status to determine when a site is ready to be officially included in the WT program. At that point, electronic information regarding the WT would be updated to include the newly-designated trailhead. Printed media would be updated on a scheduled basis, or when a certain number of new trailheads have been designated. WT staff would also work with the site owner/manager to track the implementation of WT-related mitigation measures to ensure that all measures are being implemented as required.

CHANGES TO SITE CONDITIONS OR STATUS

The WT Plan recommends periodic site reviews, or check-ins, at trailheads to identify if there are WT-related problems (e.g., user conflicts, overuse of facilities or non-compliance with rules). The frequency of these site reviews would vary, depending on the potential sensitivity or other particular conditions of the specific site.

The Trailhead Plan would identify who (usually site owners/managers) would be required to regularly review site conditions to verify that they remain consistent with the conditions described in the applicable CEQA documentation. WT staff would track the reviews to ensure that they are occurring with the specified frequency and to identify and try to resolve potential concerns, if any.

Trailhead issues would also come to the attention of WT and site managers through feedback from users or other interested stakeholders and experts. If potential WT-related problems or significant changes in site conditions were identified, WT staff would work with site owners/managers to resolve any problems. Major concerns or persistent problems would be brought to the PMT/Advisory Committee for discussion and input.

The goal in resolving potential trailhead issues would be to resolve the problem completely or to minimize it to an acceptable level of effects, while maintaining trailhead status. Means of achieving this goal will depend on the site and the issue, and may include implementation of more extensive management and stewardship programs, seeking funding to address structural problems, or recommending wildlife protection options such as seasonal trail closures, to name a few options.

“Removing” a designated trailhead from the WT network is an option for the PMT to take, but this “un-designation” would be a last resort. Once a trailhead is undesignated, the WT would no longer be involved, and the site would lose the benefits of WT education and outreach programs specific to that site. If a site is undesignated, it would be removed from all WT education and outreach media, and signage denoting the site as a trailhead would be removed. Most likely, access would remain open at the site, allowing problems to continue. The WT has no regulatory power to close a site or regulate management practices at a site.

2.4.4 OTHER WATER TRAIL IMPLEMENTATION TASKS

DEVELOPMENT OF WATER TRAIL SIGNAGE

The Conservancy would work with members of the PMT and other stakeholders to develop a WT logo. General signage specifications (size, content, colors, location, etc.) would be developed by the PMT and Advisory Committee. This would ensure that signage is compatible with other facilities at a site, has the appropriate safety and environmental protection educational content, identifies stewardship opportunities, and is developed to consider the needs of the site users with physical or other limitations. To facilitate BCDC review, BCDC would be involved in the development of the WT signage guidelines, and the guidelines would take into consideration typical BCDC permit requirements as described in the BCDC *Shoreline Signs Design Guidelines* (BCDC 2005).

FUNDING OF WATER TRAIL-RELATED IMPROVEMENTS

Site owners and managers currently provide the bulk of the funding for NMSB access improvements, and are expected to continue to do so in the future. Although the WT Act calls for the Conservancy to take the lead in efforts to fund WT-related improvements and other activities, the Conservancy cannot guarantee funding for the WT. Cal Boating has funded projects to enhance non-motorized small boating in the past, and is expected to continue to do so in the future, but funding levels vary from year to year. Non-profit organizations may also make grants for access or related improvements. Funding of WT-related improvements would require collaboration by a range of grant-making agencies and site owners/ managers.

COORDINATION OF WATER TRAIL EDUCATION PROGRAMS

The proposed education and stewardship programs were discussed in detail in Section 2.3.5. The Conservancy or another suitable organization would take the lead in developing materials that could serve as the basis for signage, printed educational materials, and training and instruction. Education would be delivered through a variety of media. Face-to-face training and instruction would continue to be delivered primarily by NMSB organizations and NMSB outfitters; however, training would likely be more comprehensive. In addition, NMSB users would be able to use the WT website and other information to easily access education and training resources.

DEVELOPMENT AND DISTRIBUTION OF WATER TRAIL INFORMATION

The publicity and public outreach program would work closely with the education and stewardship programs (see Section 2.3.5). The Conservancy or another suitable organization in charge of the education programs would also take the lead in developing and distributing information about the WT, and would take the lead in ensuring that a useful website is well managed and maintained. Information regarding the WT would be made available to all interested parties. In addition to the website, the Conservancy or another suitable organization would develop a guidebook and other printed information that could be distributed by NMSB organizations, site owners, operators, managers, and waterfront and water-oriented businesses. As discussed earlier, all publicity and public outreach materials would reinforce the responsible boating practices messages (WT ethic) contained in the WT educational program.

2.5 Permits and Approvals

The Conservancy would be responsible for revising the proposed WT Plan in accordance with mitigations and other desirable changes identified through the CEQA process described in this Draft EIR. Once the Plan is in final form and has been approved by the Conservancy, the WT PMT would be responsible for approval of required Trailhead Plans and Sign Plans for specific sites, and designation of specific access and destination sites as part of the WT. Each project would require CEQA review and approval by a lead agency. In addition, implementation of the Plan at specific sites may require approvals of one or more of the following agencies, depending on the specifics of the proposed actions:

- U. S. Army Corps of Engineers 404 and Section 10 permits, including compliance with the National Environmental Policy Act (NEPA)
- Federal Endangered Species Act consultation and State Endangered Species Act permits, and Essential Fish Habitat Consultation (National Marine Fisheries Service)
- DFG Streambed Alteration Agreements
- RWQCB 401 Water Quality Certification and/or Discharge Permit
- BCDC Shoreline Development Permit
- For projects on state lands, approvals from applicable California State land and water management agencies including:
 - State Parks
 - Cal Boating
 - California State Lands Commission
- For projects on federal lands, approvals from:

- USFWS (National Wildlife Refuge lands)
- NPS (National Park lands)
- Compliance with NEPA
- For projects on regional agency lands, regional agency approvals including
 - Regional parks and open space districts
- Local agency (city or county) approvals

Land use permitting agencies and requirements are described in greater detail in Section 3.13, Land Use.