California Vessel Waste Disposal Plan

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State of California
Department of Parks and Recreation
Division of Boating and Waterways
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GLOSSARY OF TERMS

Anchorage: A location where vessels can lower anchor. These locations usually have conditions for safety and protection from inclement weather and other hazards.

Areas of Special Biological Significance (ASBS): 34 ocean areas monitored and maintained for water quality by the State Water Resources Control Board. They support an unusual variety of aquatic life and often host unique individual species. ASBS are basic building blocks for a sustainable, resilient coastal environment and economy[1].

Coastal Waterways: Waterways situated outside of a land mass; for this paper's use, these include the Pacific Ocean and the Sacramento-San Joaquin River Delta.

Dump Station: A facility located in a marina on docks, or on shore, specifically designed to receive sewage from portable toilets carried on vessels[2].

Floating Restroom: Sewage facilities provided for use by recreational boaters on lakes and reservoirs, not connected to land or a marina and only accessible by water. Floating Restrooms are installed and utilized to prevent sewage from entering waterways.

Inland Waterways: Lakes, reservoirs, and rivers situated in the interior of a land mass rather than on the coast.

Type III Marine Sanitation Device (MSD): Equipment for installation on board a vessel which is specifically designed to receive, retain, and discharge human body wastes; sewage holding tank.

Mobile Pumpout Services: Boat-to-boat holding tank pumpout service for convenient boat sewage management.

Mooring Buoy: A mooring buoy fixes a vessel's position relative to a point on the bottom of a waterway without connecting the vessel to shore.

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[1] California State Water Resources Control Board, 2019

[2] California Department of Boating and Waterways, 2005

No Discharge Zone: A United States Environmental Protection Agency (EPA) designated body of water that prohibits the discharge of treated and untreated boat sewage[3].

Pumpout: A facility that pumps or receives human body wastes out of Type III MSDs installed on board a vessel[4].

Slip: Portion of a pier or dock where a boat is berthed and used for embarking or disembarking.

[3] United States Environmental Protection Agency, 2018

[4] United States Department of the Interior, Fish and Wildlife Service, 1994

EXECUTIVE SUMMARY

California Department of Parks and Recreation (DPR) Division of Boating and Waterways (DBW) is the state's representative to administer the U.S. Fish and Wildlife Service (USFWS) Clean Vessel Act (CVA) grants. CVA grants are funded by the Federal Sport Fish Restoration and Boating Trust Fund to keep recreational vessel sewage from entering California's waterways. DBW applies for and has historically received federal awards totaling between $2.5 and $2.9 million annually between the CVA Inland award (approximately $1.6 million) and CVA Coastal award (approximately $1.3 million) for this effort. The division uses this federal funding for three competitive grant programs. These programs, administered by DBW, are available to public agencies and in some cases private companies for the installation of pumpout and dump stations, building and deploying ADA compliant floating restrooms, educating boaters on proper sewage disposal and monitoring California's pumpout network.

USFWS CVA grants are scored more favorably if the state has an operational guiding document for vessel waste management. California developed its first guidance document in 2002. In 2015, DBW requested funding through the federal CVA Coastal award to update the California Vessel Waste Disposal Plan (Plan). The USFWS agreed and granted DBW $93,750 through its F16 award (F16AP00380) to update the Plan.

The goal of the 2020 update is to provide DBW an operational strategy for the next five to seven years for allocating funding investments to areas where boaters most need these services. The Plan identified these areas by first identifying:

- California's existing vessel sewage disposal resources (both publicly and privately funded);
- Efficacy of the previous Plan's pumpout and dump station ratios and to recommend revisions, if necessary;
- Physical gaps in the existing network;
- Areas of greatest concern;
- Methodology for making future funding decisions.

Through the analysis of the above, it was determined that a lower pumpout ratio and a higher dump station ratio would benefit California's waterways and its boaters with more relevant facilities based on regional boat usage and demand.

This Plan establishes a new pumpout target ratio of one pumpout for 250 boats sized 25 feet or longer and a dump station target ratio of one dump station for 500 trailerable boats less than 25 feet in size. Previously the ratio was one pumpout/dump station for every 300 boats.

The current sewage resources in the state of California include: 255 pumpouts, 61 dump stations, 119 floating restrooms, and 26 facilities with in-slip pumpout systems. To meet the new target ratios, an additional 71 pumpouts and 37 dump stations would need to be installed throughout the state.

INTRODUCTION

BACKGROUND INFORMATION

As part of the USFWS administration of the C VA Grant for the federal government, the USFWS scores more favorably CVA grant applications from states that have a Vessel Waste Disposal Plan. California's Plan was last updated by the Department of Boating and Waterways in 2002[5]. Since then, many pumpouts, dump stations, and floating restrooms have been installed throughout the state; mobile pumpout services have increased in popularity as a method to help reduce sewage discharge into state waters; and the population of the state has increased by over five million people. In addition, laws have changed at the state and local level, the Department of Boating and Waterways was merged into DPR as a division, and the USFWS has issued new guidance on theCVA that is expected to change again in the near future. The Plan must be updated to ensure that the state of California has the information and strategies necessary to make proactive management decisions regarding vessel sewage management throughout the state.

California has one of the highest levels of recreational boating in the nation. With 1,100 miles of Pacific Ocean coastline and hundreds of inland navigable rivers, lakes, and the Sacramento-San Joaquin Delta (Delta), there are a myriad of recreational opportunities for boaters. As the nation's most populous state, California's 39,557,000 people[6] own over 826,000 registered boats (Table 6). Consequently, the combination of recreationally available waterways, high recreation demand, and mild climate make it all the more important for there to

[5] California Department of Boating and Waterways, 2005

[6] United States Census Bureau, 2018

be resources available for boaters to effectively and conveniently keep sewage from entering our valuable waterways. Recreational activities, including boating, place a severe demand on California's water resources. Protecting water quality is essential to maintain healthy habitats and is in everyone's best interest.

In 1992, Congress passed the CVA to help reduce pollution from vessel sewage discharges into United States waters. The grant program established by the act helps fund the construction, renovation, operation, and maintenance of sewage pumpout stations, dump stations, and floating restrooms to service recreational vessels. The CVA Program also provides grant funding for boater education programs to promote public awareness about boat sewage and its proper disposal. As part of its commitment to provide clean, safe, and enjoyable recreational boating in California, DBW serves as California's grant coordinator utilizing Federal Sport Fish Restoration and Boating Trust Fund grants to implement the CVA Program.

GOAL AND OBJECTIVES

DBW strives to deploy an adequate, accessible, and well-maintained network of vessel waste disposal facilities (pumpouts, dump stations, and floating restrooms), and to proactively educate the California boating community about sewage-related issues, impacts, resources, and proper management.

The goal of this Plan is to provide a guiding document for future funding investments for installation and maintenance of sewage disposal facilities (pumpouts, dump stations, floating restrooms) to areas where boaters most need these services.

The objectives of this Plan are to:

1. Identify the current ratio of sewage disposal facilities in each geographic region and subregion;
2. Recommend an ideal ratio of recreational boats per sewage pumpout;
3. Recommend an ideal ratio of recreational boats per sewage dump station;
4. Prioritize boating regions in need of additional sewage resources; and
5. Outline potential educational and public awareness efforts regarding vessel waste and its proper disposal.

BENEFITS

Providing an adequate number of pumpouts, dump stations, and floating restrooms, as well as implementing adequate education, outreach, and monitoring programs will result in the following benefits:

- A decrease in potential health hazards from a reduced volume of vessel waste discharged into state waters. This will help prevent the contamination and transmission of disease-causing organisms.
- A decrease in potential water quality impacts from reduced chemical additives sometimes used in onboard holding tanks.
- An increase in oxygen levels in waters, which will help promote a healthy aquatic environment and lessen the incidences of harmful algal blooms, odors, fish kills, etc.
- A reduction in nutrient loading from waste discharges which can help reduce invasive aquatic plant production.
- Improvement of the aesthetic benefits of clear, clean water free of floating vessel sewage, which will encourage water-oriented recreation.
- Stronger economic benefits of recreating in clean waterways.
- Complimentary programming to other existing education and outreach programs aimed at reducing all sources of boat pollution for a comprehensive pollution prevention approach.
- Improved boater awareness and implementation of best management practices that reduce pollution. California shares waters with Arizona, Nevada, and Oregon. California's educational program will also help expose interstate boaters to the importance of proper vessel waste disposal. Implementation of this plan will help benefit the plans of Arizona, Nevada, and Oregon by increasing sewage facilities and education and outreach efforts available to both resident and non-resident users.

STATE OF THE NETWORK

In order to establish a Plan, it is essential to know the current state of the vessel sewage disposal network to identify current discrepancies and develop a statewide sewage management strategy. The following section includes current resources available for boaters to properly dispose of sewage as well as current education and outreach efforts.

Current State of Vessel Sewage Disposal Resources

The DPR recognizes seven regions, which are delineated by county lines (Figure 1). For a list of counties included in each region see Tables 7-13. For the purpose

of this Plan, data was collected on all boating facilities in the state that have vessel sewage disposal resources or in-water accommodations. For a detailed explanation of the methodology used to collect and analyze this data, see Appendix 1.

Results show the total sewage resources include:

- 255 pumpouts: 217 publicly accessible, 38 private
- 59 dump stations: 53 publicly accessible, 6 private
- 119 floating restrooms: 116 publicly accessible, 3 private
- 26 facilities with in-slip pumpout systems

Although information was collected regarding private sewage resources and analyzed as part of the pumpout ratio and dump station ratio, this report only shares detailed information on publicly accessible sewage resources (Table 14).

Current State of the Sewage Pumpout Network

DBW recommends a new pumpout ratio of no more than 250 boats sized 25 feet or longer per one pumpout (Appendix 2). Previously the ratio was one pumpout/dump station for every 300 boats with Type III Marine Sanitation Devices (MSDs). With the new ratios presented in this Plan, DBW will know where to install a pumpout versus a sewage dump station. The new ratio was developed in part due to feedback from the boating community. For example, in Marina del Rey the current pumpout ratio is 306 boats per pumpout; however, boaters in Marina del Rey have voiced complaints that there are not enough pumpouts to accommodate the boating community, especially when a pumpout is non-operational for any period of time. Additionally, the old ratio referred to boats with Type III MSDs, which is not obtainable data. However, vessel length can be used as an indication of a vessel's likelihood to have a Type III MSD, or on-board toilet. DBW obtains vessel length data through California Department of Motor Vehicle vessel registration data.

DBW also recommends that there be one pumpout in subregions where there are 50 or more slips sized 25 feet or longer to accommodate the sewage disposal needs of vessels without providing resources in areas where they will be underutilized (Appendix 2). This recommendation was determined in part by reviewing the data (Tables 7-13) to identify instances of slips 25 feet or longer, mooring buoys without access to any sewage pumpouts and in part from the knowledge that boat waste is more concentrated than municipal waste in terms of pollutants such as bacteria, nitrogen, and phosphorus.

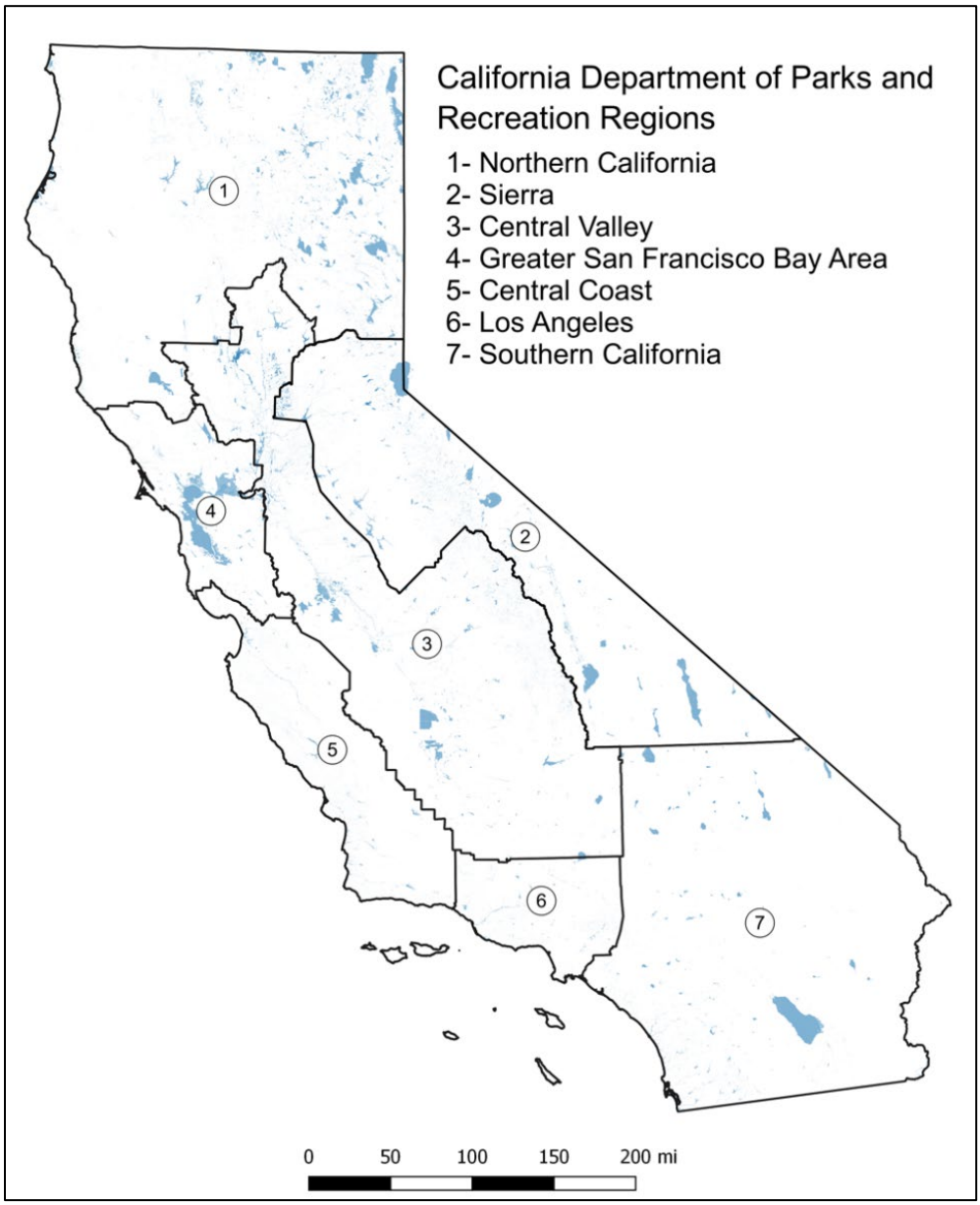

Figure 1: Map of California Department of Parks and Recreation regions.

The current state of the sewage pumpout network was determined using a pumpout ratio developed by taking the total number of in-water accommodations for boats (i.e. slips and mooring buoys) 25 feet or longer and dividing it by the total number of publicly accessible sewage pumpouts. If a private stationary or in-slip pumpout is available to a subset of in-water accommodations, the total number of in-water accommodations was reduced by this amount then divided by the total number of publicly accessible sewage pumpouts to develop a pumpout ratio. If a pumpout ratio exceeds the recommended ratio of 250 boats per one pumpout the number of pumpouts

needed to meet the recommended ratio was calculated. All data was analyzed by geographic subregions. In Southern California, subregions correspond to individual coastal harbors and individual lakes. In Northern California, subregions correspond to individual counties due to waterways crossing several county lines. For a full explanation of the methodology used to determine the pumpout ratio, see Appendix 1.

Table 1 and Figure 2 show the subregions that do not achieve the recommended pumpout ratio. For a full list of subregions and their corresponding pumpout ratio, see Tables 7-13. Table 1 shows an additional 71 pumpouts need to be installed statewide in order to meet the 250 boats to one pumpout ratio. The data highlights that the majority of subregions in need of additional sewage pumpouts are located along the coast, in San Francisco Bay, and in the Delta.

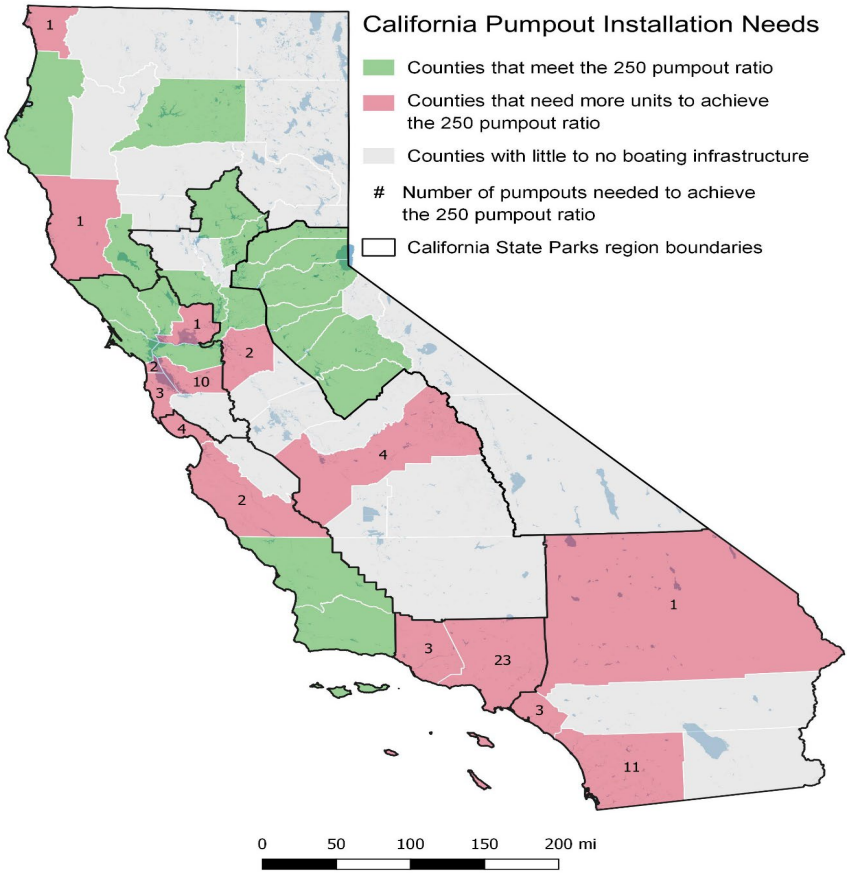

Figure 2: California pumpout installation needs by county to achieve the pumpout ratio of no more than 250 boats sized 25 feet or longer per one pumpout.

Table 1: Prioritized boating subregions in need of additional sewage pumpouts to achieve the pumpout ratio of no more than 250 boats sized 25 feet or longer per one pumpout.

Region	County	Waterway	Total Slips ≥25' + Mooring Buoys	Slips ≥25' + Mooring Buoys with access to private stationary or in-slip sewage pumpout	Current No. of Public Pumpouts	Pumpout Ratio	No. of Pumpouts to be Installed
1	Mendocino	Coastal Pacific	330	0	1	330	1
	Del Norte	Coastal Pacific	280	0	1	280	1
3	Fresno	Inland Waterways	1220	0	1	1220	4
	San Joaquin	Delta, Inland Waterways*	1898	349	5	310	2
4	Alameda	San Francisco Bay*	5413	50	12	447	10
	San Mateo	San Francisco Bay*	2788	415	7	339	3
	San Francisco	San Francisco Bay	1978	0	6	330	2
	Solano	Delta, Inland Waterways*	1697	187	6	252	1
5	Santa Cruz	Coastal Pacific	1005	0	1	1005	4
	Monterey	Coastal Pacific	1189	0	3	396	2
6	Los Angeles	Port of LA-San Pedro	1349	0	1	1349	5
	Los Angeles	King Harbor*	1100	19	2	541	3
	Los Angeles	Port of LA-Wilmington	1065	0	2	533	3
	Los Angeles	Catalina Island	1596	0	3	532	4
	Ventura	Channel Islands Harbor	1847	0	5	369	3
	Los Angeles	Port of Long Beach*	4338	0	12	362	6
	Los Angeles	Marina del Rey Harbor*	3318	1174	7	306	2
7	San Diego	Mission Bay*	1941	250	4	423	3
	Orange	Dana Point Harbor	1502	0	4	376	3
	San Diego	San Diego Bay*	7266	1871	15	360	7
	San Diego	Oceanside Harbor	966	0	3	322	1
	San Bernardino	Silverwood Lake	61	0	0	-	1
Statewide Total							71

Note: Pumpout ratio is not obtainable when there are zero pumpouts in a given subregion as indicated by the dash (-). Inland waterways may include lakes, reservoirs, and/or rivers.

Current State of the Sewage Dump Station Network

DBW recommends a new dump station ratio of no more than 500 boats less than 25 feet in length per one dump station. Previously there was a ratio of one pumpout/dump station for every 300 boats with Type III MSDs. With the new ratios presented in this Plan, DBW will know where to install a pumpout versus a sewage dump station. The new ratio was developed in part by reviewing the data (Tables 7-13) to encourage boating facilities that can accommodate boats less than 25 feet in length to provide this convenient sewage disposal resource.

The division also recommends one dump station in subregions where there are 50 or more slips less than 25 feet to accommodate the sewage needs of smaller vessels without providing resources in areas where they will be underutilized. This recommendation was determined in part by reviewing the data (Tables 7-13) to identify instances of slips less than 25 feet without access to a sewage dump station and in part from the knowledge that boat waste is more concentrated than municipal waste in terms of pollutants such as bacteria, nitrogen, and phosphorus. DBW may also consider installing dump stations at launch ramps and high trailerable boat usage areas. However, data on launch ramps and boat usage was not considered as part of this plan due to capacity limitations. Alternatives such as landside restrooms can also be used for the purpose of properly disposing of port-a-potty waste.

To determine the current state of the sewage dump station network, the total number of slips less than 25 feet was divided by the total number of publicly accessible sewage dump stations to develop a dump station ratio. If no dump stations are present, a dump station ratio was not developed as indicated in Table 2 by a dash (-). If a private dump station is available to a subset of slips less than 25 feet, the total number of slips less than 25 feet was reduced by this amount then divided by the total number of publicly accessible sewage dump stations to develop a dump station ratio. If a dump station ratio exceeds the recommended ratio of 500 boats less than 25 feet per one dump station, the number of dump stations needed to meet the recommended ratio was calculated. All data was analyzed by geographic subregions. In Southern California, subregions correspond to individual coastal harbors and individual lakes. In Northern California, subregions correspond to individual counties. For a full explanation of the methodology used to determine the new dump station ratio, see Appendix 1.

Table 2 and Figure 3 show the subregions that do not achieve the recommended dump station ratio. Statewide, an additional 37 dump stations are needed in order to meet the recommended ratio. For a full list of subregions and their corresponding dump station ratio see Tables 7-13.

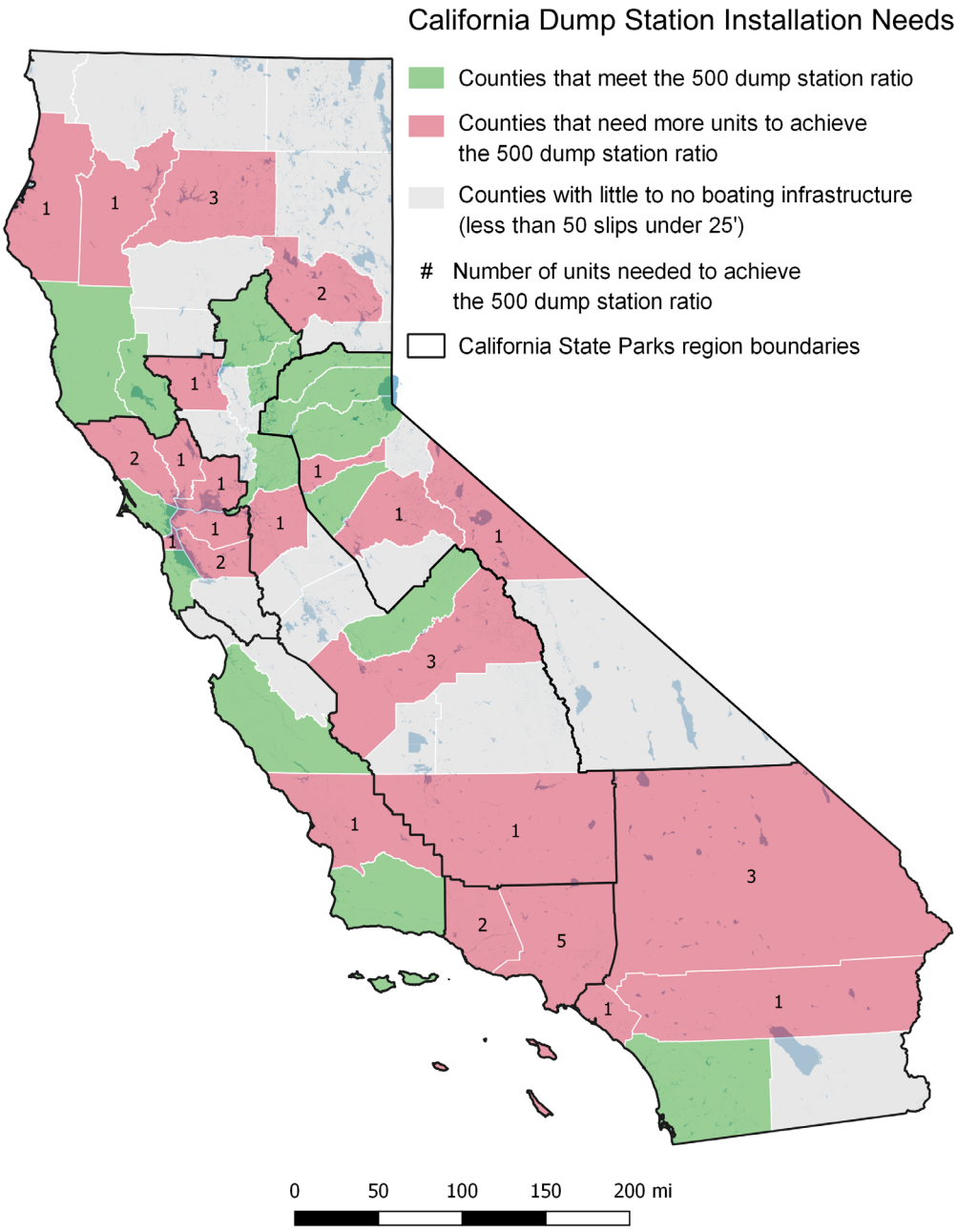

Figure 3: California dump station installation needs by county to achieve the dump station ratio of no more than 500 boats less than 25 feet in length per one dump station.

Table 2: Prioritized boating sub-regions in need of additional sewage dump stations to achieve the dump station ratio of no more than 500 boats less than 25 feet in length per one dump station.

Region	County	Waterway	Total Slips <25'	Slips <25' with access to a private dump station	Current No. of Public Dump Stations	Dump Station Ratio	No. of Dump Stations to be Installed
1	Shasta	Inland Waterways	1009	0	0	-	3
	Plumas	Inland Waterways	587	0	0	-	2
	Humboldt	Coastal Pacific	132	0	0	-	1
	Trinity	Inland Waterways	55	0	0	-	1
2	Amador	Inland Waterways	120	0	0	-	1
	Mono	Inland Waterways	94	0	0	-	1
	Tuolumne	Inland Waterways	84	0	0	-	1
3	Fresno	Inland Waterways	1110	15	0	-	3
	San Joaquin	Delta, Inland Waterways	454	0	0	-	1
	Colusa	Inland Waterways	100	0	0	-	1
	Kern	Lake Isabella	96	0	0	-	1
4	Sonoma	Coastal Pacific, Inland Waterways	750	0	0	-	2
	Contra Costa	Delta, Inland Waterways	1310	30	2	640	1
	Alameda	San Francisco Bay	552	40	0	-	2
	Napa	Coastal Pacific, Inland Waterways	468	0	0	-	1
	Solano	Delta, Inland Waterways	157	0	0	-	1
	San Francisco	San Francisco Bay	65	0	0	-	1
5	San Luis Obispo	Lake Nacimiento	100	0	0	-	1
6	Los Angeles	Marina del Rey Harbor*	1193	500	0	-	2
	Ventura	Channel Islands Harbor	534	0	0	-	2
	Los Angeles	Port of LA-San Pedro	221	0	0	-	1
	Los Angeles	King Harbor	166	0	0	-	1
	Los Angeles	Port of LA-Wilmington	86	0	0	-	1
7	Orange	Dana Point Harbor	999	0	1	999	1
	San Bernardino	Big Bear Lake	459	0	0	-	1
	Riverside	Lake Perris	320	0	0	-	1
	San Bernardino	Colorado River	269	0	0	-	1
	San Bernardino	Lake Havasu	120	0	0	-	1
		Statewide Total			3		37

Current State of Floating Restrooms

Floating restrooms are provided for boaters' use on lakes and reservoirs to prevent sewage from entering our valuable waterways. All types of boaters including non-motorized boaters such as kayakers and stand-up paddle boarders use them. Through data collection, it was noted that floating restrooms can be deployed seasonally based on the boating season and/or drought conditions and, based on need, can be moved to different locations within a lake from one year to the next. Results show a total of 116 publicly accessible floating restrooms throughout the state. Future research will result in a recommended ratio for floating restrooms, similar to the pumpout and dump station ratios discussed previously. See Statewide Strategy 4 for more information.

A current issue with floating restrooms is the lack of accessible restrooms for those with disabilities. DBW has developed an accessible restroom and deployment of the new design is occurring in fiscal year 2019-2020. DBW's first priority is to provide replacements to the state and federally run reservoirs. The second priority is to add restrooms to water bodies whose managers request them and demonstrate the need and ability to operate and maintain them.

Table 3. Publicly Accessible Floating Restrooms

Region	County	Waterway	Quantity
1	Shasta	Shasta Lake	13
	Shasta	Whiskeytown Lake	2
	Trinity	Trinity Lake	6
		Total	**21**
2	Placer	Lake Clementine	1
	Mono	Crowley Lake	2
	Tuolumne	Don Pedro Lake	8
	Amador	Lake Camanche	2
	Mariposa	Lake McClure	2
	Calaveras	New Hogan Lake	1
	Calaveras	New Melones Reservoir (Lake)	4
	Amador	Lake Pardee	10
		Total	**30**

Table 3 Publicly Accessible Floating Restrooms Cont.

3	Butte	Lake Oroville	9
	Yuba	Bullards Bar Reservoir	8
	Sacramento	Sacramento River	3
	Tulare	Kaweah Reservoir	1
	Fresno	Millerton Lake	2
	Fresno	Pine Flat Lake	8
	Kern	Lake Isabella	1
		Total	**32**
4	Napa	Lake Berryessa	6
	Sonoma	Lake Sonoma	2
		Total	**8**
5	San Luis Obispo	Lake Nacimiento	3
	Santa Barbara	Lake Cachuma	2
		Total	**5**
6	Los Angeles	Castaic Lake	2
	Los Angeles	Pyramid Lake	2
	Ventura	Lake Casitas	1
	Ventura	Lake Piru	2
		Total	**7**
7	Riverside	Diamond Valley Lake	3
	Riverside	Lake Elsinore	2
	San Bernardino	Big Bear Lake	2
	San Diego	El Capitan Lake	1
	San Diego	Hodges Lake Reservoir	1
	San Diego	Lake Miramar	1
	San Diego	Lower Otay Lake	1
	San Diego	Murray Reservoir	1
	San Diego	San Vicente Reservoir	1
		Total	**13**
Statewide Total			**116**

Current State of Education and Outreach

DBW annually allocates approximately $550,000 to two geographically bound Clean Vessel Act Education and Outreach grants to educate the boating

community and increase awareness regarding vessel waste. One grant covers the 12 counties of the San Francisco Bay Delta region plus the two-county Central California Coast, and the second grant covers the six Southern California coastal counties. The San Francisco Estuary Partnership (SFEP) and The Bay Foundation (TBF) have been recipients of these grants in Northern and Southern California, respectively. SFEP and TBF have worked to further the program goal of increasing boater awareness about proper sewage disposal and its impacts on water quality by conducting education and outreach and performing regular monitoring and reporting on the status of the pumpout network.

The objectives of the education and outreach program are to 1) inform the boating community within each of the two geographic areas about sewage-related issues and impacts, resources available to them, and proper vessel sewage disposal practices that encourage the use of pumpout stations and mobile pumpout services, and 2) educate boating facility operators about the availability of DBW grants to install and maintain pumpout stations at their facility.

Awardees SFEP and TBF have accomplished these goals and objectives through direct outreach, collaboration, and technical support. Both organizations target boat owners and operators, marina owners and operators, boating supply companies and retailers, government agencies, and service companies (mobile pumpout companies, boat yards, maintenance companies, etc.).

Through close collaboration with DBW, both awardees have implemented innovative projects to meet these goals and objectives. The following successful projects are now a component of DBW's Education and Outreach toolkit.

Pumpout Nav: The award-winning Pumpout Nav mobile app helps boaters locate nearby functioning sewage disposal resources and displays cost, hours, and location within a marina or harbor. It also provides instructions on how and why to pumpout, allows boaters to report an issue, and shares information about the environmental risks and applicable regulations regarding sewage discharge. The app is used to monitor pumpout stations and email facility managers the results of the monitoring and any problems reported. The app may be used in other states at the discretion of local CVA coordinators.

Pumpout Monitoring: In-person pumpout monitoring is conducted to foster relationships with facility managers. Access to technical assistance and participation in the monitoring program are effective means to encourage better maintenance and accountability for the pumpouts condition. Open communication also provides an opportunity to encourage facility operators to apply for DBW pumpout grants. A statewide Pumpout Report summarizing monitoring data is developed and published annually.

Universal Deck Adapter Kit Pilot Project: In an effort to eliminate issues faced by boaters at sewage pumpout units such as missing nozzles or broken parts, this pollution prevention kit is distributed to boaters, marinas, and harbormasters. The adapter creates a leak-free connection between the deck waste fitting and the universal clamp on the pumpout hose, making the pumpout process simpler, cleaner, and more convenient.

Dye Tablet Programs: Dye tablet tests are offered during pumpout monitoring to help identify leaks in the plumbing of a sewage pumpout system. Dye tablets are also offered to the boating community to test individual boat sewage systems to ensure there are no leaks.

Videos: Videos are developed, announced through press releases, distributed online via social media and newsletters, and shown during clean boating presentations. Videos include information on MSDs and Y-valves and step-by-step instructions on how to pumpout a sewage-holding tank.

Publications: Educational publications are developed and distributed at boating events and presentations. Publications include *When Nature Calls*, *Southern California Boater's Guide*, *Southern California Tide Calendar*, Bay and Delta pumpout maps, and articles for the *Changing Tide* newsletter.

Partnerships: Statewide boater kits, developed by DBW and California Coastal Commission's Boating Clean and Green Program, and The Bay Foundation, have proven to be an impactful tool to incentivize boaters to engage with outreach staff at events. Kits include several publications listed above as well as pollution prevention resources.

Boating Events and Presentations: Direct outreach to the boating community is conducted at boating events and through presentations. Outreach staff have conducted face-to-face education and outreach to the boating community

since 1996. Direct outreach evolves each year with new and innovative ways to promote clean boating, specifically sewage management habits.

Honey Pot Day: Available in select Southern California harbors, this program educates boaters about proper sewage disposal through an online portal and offers one free mobile pumpout service to each participant. The purpose of this program is to educate boaters about proper boat sewage disposal and to encourage boaters to dispose of all sewage properly by using a pumpout or mobile pumpout service.

STATEWIDE STRATEGY

This section describes DBW's current and proposed strategies to advance the Clean Vessel Act's goals and meet its objectives. Each strategy includes the approach to accomplish its objectives.

Strategy 1: Expanding California's Sewage Network

The current sewage network within the state needs to be expanded to include more publicly accessible sewage disposal resources. Coastal needs and inland needs differ based on recreational use and boat type, and the prioritization of installation grants can meet both sets of needs. DBW will continue to prioritize replacement pumpouts prior to new installationsand grants for new pumpouts based on the pumpout and dump station ratios, focusing on subregions with the worst ratios, while not disregarding installation grant applicants in subregions with ratios that meet DBW objectives.

California coastal counties, including the San Francisco Bay and Delta, account for 91% of mooring buoys and slips 25 feet or longer and 64% of slips less than 25 feet. Table 4 shows the need to focus on installation of sewage pumpouts in coastal areas, in San Francisco Bay, and in the Delta to meet DBW's objectives.

Inland counties account for 9% of mooring buoys and slips 25 feet or longer and 36% of slips less than 25 feet. Table 4 shows the need to focus on installation of sewage dump stations in inland subregions to meet DBW's objectives.

Table 4: Installation needs based on ratios

Geographic Area	No. of Pumpouts to be Installed	No. of Dump Stations to be Installed
Coastal Pacific, San Francisco Bay, Delta	67	17
Inland Waterways	4	20

Specific counties included in each geographic area in the table above are included in Tables 1 and 2.

Strategy 2: Maintaining a Functioning Network

Operation and maintenance grants are a critical component of DBW's toolkit to maintain a properly functioning sewage disposal network. Due to the intense physical work these systems perform and the exposure of equipment to nature's elements, sewage disposal resources require frequent preventive maintenance and repair. Non-operable sewage disposal units threaten marine habitat, water quality, and the boating community's confidence in the state of the network. It is common for boaters to have the impression that a specific sewage disposal unit is never operational if they attempted to utilize the resource only one time when it was non-operational.

Repairs must be made quickly to ensure the boating community has access to a functioning network. The costs of renovations or upgrades are usually far less than a new installation, and the cost of new units can be a financial barrier for boating facilities. Therefore, the Operation and Maintenance Program will continue to be available to all boating facilities on a first-come, first-served basis at the discretion of the grantor. The education and outreach grantees will continue to promote the operation and maintenance grants to eligible facility grantees. Eligible grantees are those whose pumpouts were funded by CVA, but that are older than 7 years, or pumpouts funded by private operators to offset operation and maintenance costs.

Strategy 3: Prioritizing Special Considerations

When prioritizing water bodies for the installation grant, No Discharge Zones (NDZ) (Table 15) and Areas of Special Biological Significance (ASBS) (Table 16) will be considered. Additional priority will be given to applicants in a NDZ or within three miles of an ASBS, if the pumpout or dump station ratio (depending on if the grant application is for a pumpout or dump station) does not vary by more than 50. It is important to put more priority on areas with dense slip counts and few sewage resources over those that are NDZ or ASBS. Although NDZ and

ASBS are more sensitive to the impacts of sewage discharge, they are more highly regulated and therefore may not need additional sewage resources.

For example, Mission Bay is a NDZ with a pumpout ratio of 423 and should be prioritized for a pumpout Installation Grant over Alameda County San Francisco Bay, which has a higher pumpout ratio of 447 but is not a NDZ. Alternately, King Harbor has a pumpout ratio of 541 and should be prioritized for a pumpout installation grant over Dana Point Harbor, which is a NDZ but has a pumpout ratio of 376 which is lower by a difference of 165.

Additional priority should be given to areas with less private mobile sewage pumpout companies (Table 17), if the pumpout or dump station ratio does not vary by more than 50. For example, Channel Islands Harbor with a pumpout ratio of 369 should be prioritized for a pumpout Installation Grant over Dana Point Harbor with a pumpout ratio of 376 because there is only one mobile pumpout company in Channel Islands Harbor and three mobile pumpout companies in Dana Point Harbor.

> Qualitative Considerations: Many components influence a boater's decision to utilize a sewage disposal resource. Convenience, accessibility, and affordability all promote a more equitable and user-friendly environment. Proper dispersal of sewage resources requires boaters to travel shorter distances and encourages proper disposal of sewage, particularly in areas with intricate waterways or remote areas.

Strategy 4: Floating Restroom Allocation

DBW will conduct research to make more informed recommendations on where floating restrooms should be installed in California by examining where there is a need for this sewage resource. The need for floating restrooms will be determined by DBW and the local water body manager and will take into consideration several factors including but not limited to lake size, recreational uses, boat usage, boating infrastructure, launch data, water body manager's ability to operate and maintain the floating restroom, and water quality data. Boaters with motorized vessels are the primary users, however individuals who are swimming or traveling by non-motorized vessels like kayaks and stand-up paddleboards can be users of floating restrooms and should be taken into consideration as well. This future research will result in a recommended ratio for floating restrooms, similar to the pumpout and dump station ratios discussed previously.

Strategy 5: Pilot Projects

In recent years DBW and its grantees have sponsored several pilot projects to improve boaters' access, ease of use, and education around proper vessel sewage disposal, such as providing educational videos and free universal adaptor kits, or using dye tablets in pumpout systems to identify any leaks. DBW intends to continue doing small pilot projects to identify successful solutions for ongoing problems around proper sewage disposal.

For example, education, outreach, and monitoring work in recent years has highlighted several difficulties for boating facilities located in rural regions that are not connected to municipal sewer lines. One of the most common issues for facilities is the cost burden associated with emptying and disposing of sewage from septic systems and holding tanks. These high costs are often passed on to boaters in the form of higher pumpout fees, which often exceed $20 and deter boaters, particularly in disadvantaged communities, from responsibly disposing of their sewage.

To combat this issue, DBW is working in partnership with SFEP on exploring a potential pilot project to offer CVA funding for waste transport associated with emptying and disposing of sewage from septic systems and holding tanks. Based on the results of this pilot project and lessons learned, DBW may consider allocating additional resources toward outreach in rural communities to increase awareness of available funding.

Strategy 6: Research Resources to Help Offset the 25% Match

Education, outreach, and monitoring work throughout the past decade has highlighted that many marinas are challenged by the mandatory 25% match for the installation as well as operation and maintenance grants. Several facilities have been removed from monitoring efforts due to issues such as long-term inoperability and an inability for the facility to afford pumpout repair costs. Identifying resources to offset the 25% match requirement, while providing grant assistance, would encourage and assist such facilities to apply for funds to provide operable units. DBW and its grantees will work to identify and develop a list of other sources of potential funding to offset the match requirements.

Strategy 7: Clean Vessel Act Education, Outreach, and Monitoring Programs

Experience through ongoing efforts shows that education, outreach, and monitoring conducted by local entities is critical to ensure the boating community has the resources and knowledge needed to properly dispose of sewage. DBW will continue to offer CVA Education and Outreach funds for the following two geographic areas:

- The 12-county San Francisco Bay Delta Estuary (San Mateo, San Francisco, Santa Clara, Alameda, Contra Costa, San Joaquin, Sacramento, Yolo, Solano, Napa, Sonoma, and Marin) and two-county Central California Coast (Santa Cruz and Monterey) area.
- The six-county Southern California Coast (San Luis Obispo, Santa Barbara, Ventura, Los Angeles, Orange, and San Diego) area.

Due to high boating populations and sewage resources needed in the San Francisco Bay-Delta Estuary & Central Coast and Southern California Coast, DBW will continue to focus grant funding for education, outreach, and monitoring programs in subregions of these areas where the pumpout ratio and dump station ratios are poor (Table 5). The San Francisco Bay-Delta Estuary and Central Coast contain 38% of the state's boat slips and mooring buoys and need 33 additional sewage disposal resources. Southern California contains 46% of the state's boat slips and mooring buoys and needs 49 additional sewage disposal resources. DBW will also continue to focus on existing education and outreach campaigns targeting inland waterways.

Table 5: Education, Outreach, and Monitoring areas boating infrastructure.

Area	Slips <25'	Slips ≥25' & Mooring Buoys	Total	No. of Pumpouts to be Installed	No. of Dump Stations to be Installed
San Francisco Bay Delta Estuary & Central CA Coast	4,934	25,595	30,529	24	9
Southern CA Coast	5,597	31,411	37,008	40	9
Northern CA Coast	222	1,126	1,348	2	1
Inland Waterways	6,041	5,886	11,927	5	18
Statewide Total	16,794	64,018	80,812	71	37

Note: Northern CA Coast includes counties of Del Norte, Humboldt, Mendocino, and part of Sonoma.

Strategy 8: Making Continuous Improvements

DBW strives to continuously improve its processes to provide sewage resources and education. The division also aims to develop and implement innovative ideas that result in efficient program management and reduced sewage discharges. The following items address potential areas for continuous improvements.

Expansion of Education, Outreach, and Monitoring to Northern California Coast

Recent data collection shows that an additional California area should be considered for a local entity to implement education, outreach, and monitoring programming. The other area to consider is the four-county Northern California Coast (Del Norte, Humboldt, Mendocino, and part of Sonoma). Currently, there is one sewage facility (a pumpout at Petaluma Marina) that is monitored in Sonoma County as part of the San Francisco Bay Delta Estuary. However, the coastal area of the county is excluded from education, outreach, and monitoring efforts. Although the Northern California Coast has a smaller recreational boating population, it still requires more sewage facilities for those boaters, and yet it is not currently targeted by DBW program funding. There is a need for two additional pumpouts and one additional dump station to meet the recommended ratios in this area and to close this gap in the sewage network.

DBW will consider, based on available funds, modifying its Education, Outreach, and Monitoring Grant Program guidelines to include this new area of interest. Interested local organizations can apply for CVA education, outreach, and monitoring grants in the two existing and one new geographic area targeted by DBW.

Continuous Improvements to Communications and Clean Vessel Act Grants

In an effort to increase our communications, DBW will continue to update web content and CVA grant applications to enhance accuracy and streamline language to ensure a user-friendly experience. The division will consider reorganizing website content to clearly explain that the following grants are available:

- Pumpout Installation Grant and Operation and Maintenance Grant
- Dump Station Installation Grant and Operation and Maintenance Grant
- Floating Restroom Installation Grant and Operation and Maintenance Grant

The primary tool for distribution of CVA grants is a clear and coherent grant application form. DBW intends to update the grant application and review processes to improve efficiency by including both criteria and scoring adjustments as well as procedural changes to make the process easier for applicants to understand and complete, and for grant managers to review and score.

The grant application form will also be updated. The updated form will make it clear to the applicant and reviewer what is being applied for in terms of grant type (installation or operation and maintenance) and sewage resource (pumpout, dump station, floating restroom, or mobile service). The grant application form will include all appendices and necessary references to complete the application.

TABLES

Table 6: State of California vessel registrations[7]

County	Vessels <25'	Vessels ≥25'	Total
Alameda	19,826	2,227	22,053
Alpine	72	1	73
Amador	3,071	129	3,200
Butte	15,603	852	16,455
Calaveras	5,563	264	5,827
Colusa	1,423	38	1,461
Contra Costa	30,649	2,968	33,617
Del Norte	1,521	53	1,574
El Dorado	13,145	753	13,898
Fresno	20,147	1,115	21,262
Glenn	1,860	37	1,897
Humboldt	7,502	444	7,946
Imperial	2,061	77	2,138
Inyo	1,035	21	1,056
Kern	15,122	551	15,673
Kings	2,628	99	2,727
Lake	8,752	361	9,113
Lassen	2,752	45	2,797
Los Angeles	90,295	7,891	98,186
Madera	5,820	246	6,066
Marin	6,502	1,594	8,096
Mariposa	1,374	73	1,447
Mendocino	4,526	290	4,816
Merced	6,196	282	6,478
Modoc	729	12	741
Mono	1,154	18	1,172
Monterey	6,784	571	7,355
Napa	4,879	346	5,225
Nevada	8,906	410	9,316
Orange	52,783	4,879	57,662
Out Of State	7,884	1,601	9,485
Placer	18,992	897	19,889
Plumas	2,747	66	2,813
Riverside	47,641	2,433	50,074
Sacramento	40,856	2,178	43,034
San Benito	1,744	78	1,822

Table 6: State of California vessel registrations

[7] California Department of Motor Vehicles, 2018

Table 6: State of California vessel registrations, cont.

San Bernardino	42,189	2,025	44,214
San Diego	56,052	5,125	61,177
San Francisco	3,580	1,076	4,656
San Joaquin	23,797	1,370	25,167
San Luis Obispo	11,646	666	12,312
San Mateo	10,199	1,332	11,531
Santa Barbara	8,217	861	9,078
Santa Clara	23,017	1,454	24,471
Santa Cruz	6,595	761	7,356
Shasta	17,885	1,352	19,237
Sierra	305	9	314
Siskiyou	4,005	101	4,106
Solano	13,733	1,014	14,747
Sonoma	16,666	940	17,606
Stanislaus	17,023	725	17,748
Sutter	5,179	203	5,382
Tehama	4,608	152	4,760
Trinity	1,656	118	1,774
Tulare	8,423	413	8,836
Tuolumne	4,750	197	4,947
Ventura	18,411	1,628	20,039
Yolo	5,685	322	6,007
Yuba	4,635	178	4,813
Total	**770,800**	**55,922**	**826,722**

Table 7: Northern California, Region 1, boat slips, moorings, and sewage resources per subregion.

County	Total Slips <25'	Slips <25' with access to a private dump station	Publicly Accessible Sewage Dump Station	Dump Station Ratio	Total Slips ≥25'	Total Mooring Buoys	Slips ≥25' + Mooring Buoys with access to private stationary or in-slip sewage pumpout	Publicly Accessible Sewage Pumpout	Pumpout Ratio	Publicly Accessible Floating Restroom
Del Norte	0	0	0	-	280	0	0	1	280	0
Humboldt	132	0	0	-	490	26	0	3	172	0
Lake	201	0	2	101	124	4	0	1	128	0
Lassen	20	0	0	-	0	0	0	0	-	0
Mendocino	90	0	1	90	330	0	0	1	330	0
Plumas	587	0	0	-	0	80	0	0	-	0
Shasta	1009	0	0	-	858	190	0	11	95	15
Trinity	55	0	0	-	25	0	25	0	-	6
Region 1 Totals	**2094**	**0**	**3**	**698**	**2107**	**300**	**25**	**17**	**140**	**21**

Table 8: Sierra, Region 2, boat slips, moorings, and sewage resources per subregion.

County	Total Slips <25'	Slips <25' with access to a private dump station	Publicly Accessible Sewage Dump Station	Dump Station Ratio	Total Slips ≥25'	Total Mooring Buoys	Slips ≥25' + Mooring Buoys with access to private stationary or in-slip sewage pumpout	Publicly Accessible Sewage Pumpout	Pumpout Ratio	Publicly Accessible Floating Restroom
Amador	120	0	0	-	100	35	0	1	135	12
Calaveras	170	0	2	85	70	50	0	1	120	5
El Dorado	173	0	4	43	150	266	0	4	104	0
Inyo	0	0	0	-	3	20	0	0	-	0
Mariposa	42	0	0	-	14	236	0	1	250	2
Mono	94	0	0	-	175	0	0	0	-	2
Nevada	129	0	1	129	129	117	0	1	246	0
Placer	18	0	1	18	30	204	0	5	47	1
Tuolumne	84	0	0	-	182	111	0	2	147	8
Region 2 Totals	**830**	**0**	**8**	**104**	**853**	**1039**	**0**	**15**	**126**	**30**

Table 9: Central Valley, Region 3, boat slips, moorings, and sewage resources per subregion.

County	Total Slips <25'	Slips <25' with access to a private dump station	Publicly Accessible Sewage Dump Station	Dump Station Ratio	Total Slips ≥25'	Total Mooring Buoys	Slips ≥25' + Mooring Buoys with access to private stationary or in-slip sewage pumpout	Publicly Accessible Sewage Pumpout	Pumpout Ratio	Publicly Accessible Floating Restroom
Butte	377	0	1	377	130	675	0	6	134	9
Colusa	100	0	0	-	0	0	0	0	-	0
Fresno	1110	15	0	-	1220	0	0	1	1220	10
Kern	96	0	0	-	8	8	0	0	-	1
Madera	325	0	2	163	45	0	0	0	-	0
Merced	6	0	0	-	0	0	0	0	-	0
Sacramento	480	50	4	108	2801	29	503	14	166	3
San Joaquin	454	0	0	-	1898	0	349	5	310	0
Sutter	0	0	0	-	10	0	0	0	-	0
Tulare	0	0	1	0	282	0	0	0	-	1
Yolo	0	0	0	-	130	0	0	1	130	0
Yuba	117	0	4	29	52	80	0	1	132	8
Region 3 Totals	**3065**	**65**	**12**	**250**	**6576**	**792**	**852**	**28**	**233**	**32**

Table 10: San Francisco Bay, Region 4, boat slips, moorings, and sewage resources per subregion.

County	Total Slips <25'	Slips <25' with access to a private dump station	Publicly Accessible Sewage Dump Station	Dump Station Ratio	Total Slips ≥25'	Total Mooring Buoys	Slips ≥25' + Mooring Buoys with access to private stationary or in-slip sewage pumpout	Publicly Accessible Sewage Pumpout	Pumpout Ratio	Publicly Accessible Floating Restroom
Alameda	552	40	0	-	5338	75	50	12	447	0
Contra Costa	1310	30	2	640	3678	0	484	17	188	0
Marin	537	4	2	267	2538	59	738	10	186	0
Napa	468	0	0	-	249	0	0	5	50	6
San Francisco	65	0	0	-	1978	0	0	6	330	0
San Mateo	97	0	4	24	2788	0	415	7	339	0
Solano	157	0	0	-	1672	25	187	6	252	0
Sonoma	750	0	0	-	194	0	0	3	65	2
Region 4 Totals	**3936**	**74**	**8**	**483**	**18435**	**159**	**1874**	**66**	**253**	**8**

Table 11: Central Coast, Region 5, boat slips, moorings, and sewage resources per subregion.

County	Waterway	Total Slips <25'	Slips <25' with access to a private dump station	Publicly Accessible Sewage Dump Station	Dump Station Ratio	Total Slips ≥25'	Total Mooring Buoys	Slips ≥25' + Mooring Buoys with access to private stationary or in-slip sewage pumpout	Publicly Accessible Sewage Pumpout	Pumpout Ratio	Publicly Accessible Floating Restroom
Santa Barbara	Santa Barbara Harbor	243	0	2	122	900	40	0	5	188	0
San Luis Obispo	Port San Luis Harbor	0	0	0	-	0	183	0	1	183	0
San Luis Obispo	Morro Bay	0	0	1	0	262	195	0	3	152	0
San Luis Obispo	Lake Nacimiento	100	0	0	-	0	0	0	0	-	3
San Luis Obispo	Lopez Lake	15	0	0	-	0	0	0	0	-	0
Monterey	Coastal Pacific	64	0	3	21	1059	130	0	3	396	0
Santa Cruz	Coastal Pacific	0	0	0	-	1005	0	0	1	1005	0
Santa Barbara	Lake Cachuma	0	0	0	-	0	0	0	0	-	2
Region 5 Totals		**422**	**0**	**6**	**70**	**3226**	**548**	**0**	**13**	**290**	**5**

Table 12: Los Angeles, Region 6, boat slips, moorings, and sewage resources per subregion.

County	Waterway	Total Slips <25'	Slips <25' with access to a private dump station	Publicly Accessible Sewage Dump Station	Dump Station Ratio	Total Slips ≥25'	Total Mooring Buoys	Slips ≥25' + Mooring Buoys with access to private stationary or in-slip sewage pumpout	Publicly Accessible Sewage Pumpout	Pumpout Ratio	Publicly Accessible Floating Restroom
Ventura	Ventura Harbor	110	0	2	55	1285	0	0	6	214	0
Ventura	Channel Islands Harbor	534	0	0	-	1847	0	0	5	369	0
Los Angeles	Marina del Rey Harbor	1193	500	0	-	3318	0	1174	7	306	0
Los Angeles	King Harbor	166	0	0	-	1075	25	19	2	541	0
Los Angeles	Port of LA-San Pedro	221	0	0	-	1342	7	0	1	1349	0
Los Angeles	Port of LA-Wilmington	86	0	0	-	1065	0	0	2	533	0
Los Angeles	Port of Long Beach	252	0	1	252	4338	0	0	12	362	0
Los Angeles	Catalina Island	0	0	0	-	17	1579	0	3	532	0
Ventura	Lake Casitas	0	0	2	0	0	30	0	0	-	1
Ventura	Lake Piru	0	0	0	-	40	0	0	0	-	2
Los Angeles	Castaic Lake	0	0	0	-	0	0	0	0	-	2
Los Angeles	Pyramid Lake	0	0	0	-	0	0	0	0	-	2
Region 6 Totals		**2562**	**500**	**5**	**412**	**14327**	**1641**	**1193**	**38**	**389**	**7**

Table 13: Southern California, Region 7, boat slips, moorings, and sewage resources per subregion.

County	Waterway	Total Slips <25'	Slips <25' with access to a private dump station	Publicly Accessible Sewage Dump Station	Dump Station Ratio	Total Slips ≥25'	Total Mooring Buoys	Slips ≥25' + Mooring Buoys with access to private stationary or in-slip sewage pumpout	Publicly Accessible Sewage Pumpout	Pumpout Ratio	Publicly Accessible Floating Restroom
Orange	Huntington Harbour	103	0	1	103	706	0	0	3	235	0
Orange	Newport Harbor	722	0	2	361	882	600	237	11	113	0
Orange	Dana Point Harbor	999	0	1	999	1502	0	0	4	376	0
San Diego	Oceanside Harbor	0	0	2	0	964	2	0	3	322	0
San Diego	Mission Bay	278	0	1	278	1656	285	250	4	423	0
San Diego	San Diego Bay	575	10	2	283	6724	542	1871	15	360	0
San Bernardino	Colorado River	269	0	0	-	0	0	0	0	-	0
San Bernardino	Lake Arrowhead	40	0	0	-	0	0	0	0	-	0
San Bernardino	Big Bear Lake	459	0	0	-	20	0	0	0	-	2
San Bernardino	Lake Havasu	120	0	0	-	0	0	0	0	-	0
Riverside	Lake Perris	320	0	0	-	0	0	0	0	-	0
San Bernardino	Silverwood Lake	0	0	0	-	61	0	0	0	-	0
Riverside	Diamond Valley Lake	0	0	0	-	0	0	0	0	-	3
San Diego	El Capitan Lake	0	0	0	-	0	0	0	0	-	1
San Diego	Hodges Lake Reservoir	0	0	0	-	0	0	0	0	-	1
Riverside	Lake Elsinore	0	0	0	-	0	0	0	0	-	2
San Diego	Lake Miramar	0	0	0	-	0	0	0	0	-	1
San Diego	Lake Morena	0	0	1	0	0	0	0	0	-	0
San Diego	Lower Otay Lake	0	0	0	-	0	0	0	0	-	1
San Diego	Murray Reservoir	0	0	0	-	0	0	0	0	-	1
San Diego	San Vicente Reservoir	0	0	0	-	0	0	0	0	-	1
Imperial	Wiest Lake	0	0	1	0	0	0	0	0	-	0
Region 7 Totals		**3885**	**10**	**11**	**352**	**12515**	**1429**	**2358**	**40**	**290**	**13**

Table 14. Publicly accessible sewage resource facilities

Table 14: Publicly accessible sewage resource facilities

Region	County	Waterway	Name of Facility	Address	City	Zip Code	Phone Number	Sewage Resource	Quantity	GPS
1	Mendocino	Albion River	Albion River Campground and Marina	34500 North Highway 1	Albion	95410	(707) 937-0606	Dump Station	1	39.2268801, -123.7670071
1	Shasta	Shasta Lake	Antler Boat Ramp	20679 Antlers Rd	Lakehead	96051	(530) 275-1587	Floating Restroom	6	40.894217, -122.372287
1	Lake	Clear Lake	Braito's Buckingham Marina	1555 Eastlake Drive	Kelseyville	95451	(707) 279-4868	Pumpout	1	39.020902, -122.75201
1	Shasta	Shasta Lake	Crown Resorts)	10300 Bridge Bay Rd.	Redding	96003	(800) 752-9669	Floating Restroom	3	40.7565364, -122.3233053
1	Shasta	Shasta Lake	Crown Resorts)	10300 Bridge Bay Rd.	Redding	96003	(800) 752-9669	Pumpout	4	40.7565364, -122.3233053
1	Lake	Clear Lake	State Historic Park	5300 Soda Bay Rd.	Kelseyville	95451	(707) 279-2267	Dump Station	1	39.0094768, -122.8093009
1	Del Norte	Pacific Ocean	Crescent City Harbor District	101 Citizens Dock Rd.	Crescent City	95531	(707) 464-6174	Pumpout	1	41.7464381, -124.1832533
1	Shasta	Shasta Lake	Resorts)	15090 Digger Bay Rd.	Shasta Lake	96019	(530) 275-3072	Floating Restroom	1	40.7260008, -122.3917449
1	Shasta	Shasta Lake	Resorts)	15090 Digger Bay Rd.	Shasta Lake	96019	(530) 275-3072	Pumpout	3	40.7260008, -122.3917449
1	Humboldt	Humboldt Bay	Eureka Public Marina	1 Marina Way	Eureka	95501	(707) 268-1973	Pumpout	1	40.8021154, -124.1791749
1	Humboldt	Humboldt Bay	Highway 255 Bridge Boat Ramp	1701 Waterfront Drive	Eureka	95501	(707) 441-4230	Pumpout	1	40.7964098, -124.1818771
1	Shasta	Shasta Lake	Holiday Harbor Resort & Marina	20061 Shasta Caverns Rd.	O'Brien	96070	(800) 776-2628	Floating Restroom	1	40.8031296, -122.3111015
1	Shasta	Shasta Lake	Holiday Harbor Resort & Marina	20061 Shasta Caverns Rd.	O'Brien	96070	(800) 776-2628	Pumpout	1	40.8031296, -122.3111015
1	Mendocino	Noyo River	Noyo Harbor District	19101 S. Harbor Drive	Fort Bragg	95437	(707) 964-4719	Pumpout	1	39.4206191, -123.8026332
1	Shasta	Whiskeytown Lake	Oak Bottom Marina (Forever Resorts)	12485 State Highway 299 W	Whiskeytown	96095	(530) 359-2269	Floating Restroom	2	40.6500391, -122.5932251
1	Lake	Clear Lake	Red Bud Park Boat Launch Facility	Ball Park Ave	Clearlake	95422	(707) 994-3600	Dump Station	1	38.9483654, -122.6339731
1	Shasta	Shasta Lake	Shasta Marina at Packers Bay	16814 Packers Bay Rd.	Lakehead	96051	(530) 238-2284	Pumpout	1	40.782244, -122.3352107
1	Shasta	Shasta Lake	Shasta Marina at Packers Bay	16814 Packers Bay Rd.	Lakehead	96051	(530) 238-2284	Floating Restroom	2	40.8074816, -122.3223295
1	Shasta	Shasta Lake	Silverthorn Resort Associates	16250 Silverthorn Rd.	Redding	96003	(530) 275-1571	Pumpout	2	40.7547764, -122.242348
1	Trinity	Trinity Lake	Trinity Lake Floating Restroom	45810 State Highway 3	Trinity Center	96091	(530) 623-2121	Floating Restroom	6	40.8461559, -122.6302207
1	Humboldt	Humboldt Bay	Woodley Island Marina	601 Startare Drive	Eureka	95501	(707) 443-0801	Pumpout	1	40.8083216, -124.162891
2	Placer	Lake Clementine	Lake Clementine)	Lake Clementine Rd	Auburn	95603	(530) 885-4527	Floating Restroom	1	38.935441, -121.0157947
2	El Dorado	Lake Tahoe	Camp Richardson Marina	1900 Jameson Beach Rd	South Lake Tahoe	96150	(530) 542-6570	Pumpout	1	38.9344613, -120.0408162
2	Mono	Crowley Lake	Crowley Lake Fish Camp	1149 S Landing Rd.	Crowley Lake	93546	(760) 935-4301	Floating Restroom	2	37.577423, -118.735593
2	Tuolumne	Don Pedro Lake	Don Pedro Recreation Area	10201 Bonds Flat Rd.	La Grange	95329	(209) 852-2396	Floating Restroom	8	37.6991877, -120.4244852
2	El Dorado	Echo Lake	Echo Chalet	9900 Echo Lakes Rd.	Echo Lake	95721	(530) 659-7207	Pumpout	1	38.8346349, -120.0438409
2	Placer	Lake Tahoe	Homewood High & Dry Marina	5190 West Lake Blvd	Homewood	96141	(530) 525-5968	Pumpout	1	39.0848014, -120.1592977
2	El Dorado	Ice House Reservoir	Ice House Reservoir	Forest Rd. 32	Ice House	95687	(530) 644-2349	Dump Station	1	38.824972, -120.343074
2	Amador	Lake Camanche	Lake Camanche (North)	2000 Camanche Parkway North	Ione	94623	(209) 763-5166	Floating Restroom	2	38.221043, -120.982352
2	Amador	Lake Camanche	Lake Camanche (North)	2000 Camanche Parkway North	Ione	94623	(209) 763-5166	Pumpout	1	38.221043, -120.982352
2	Tuolumne	Don Pedro Lake	Marina	81 Bonds Flat Rd.	La Grange	95329	(209) 852-2369	Pumpout	2	37.679825, -120.362803
2	Mariposa	Lake McClure	Marina Cafe	Piney Creek Rd.	La Grange	95329	(209) 378-2521	Floating Restroom	2	37.6938729, -120.3064245
2	Mariposa	Lake McClure	Marina Cafe	Piney Creek Rd.	La Grange	95329	(209) 378-2521	Pumpout	1	37.6938729, -120.3064245
2	El Dorado	Lake Tahoe	Lakeside Marina	4041 Lakeshore Blvd	South Lake Tahoe	96150	(530) 541-9800	Pumpout	1	38.958779, -119.951233
2	El Dorado	Loon Lake	Loon Lake	Ice House Rd.	Pollock Pines	95726	(530) 644-2349	Dump Station	1	38.8749943, -120.3754352
2	Calaveras	New Hogan Lake	New Hogan Lake	2713 Hogan Dam Rd.	Valley Springs	95252	(209) 772-1343	Floating Restroom	1	38.1544542, -120.8145255
2	Calaveras	New Hogan Lake	New Hogan Lake	2713 Hogan Dam Rd.	Valley Springs	95252	(209) 772-1343	Dump Station	2	38.1544542, -120.8145255
2	Calaveras	(Lake)	New Melones Lake Marina	6503 Glory Hole Rd.	Angels Camp	95222	(209) 785-3300	Floating Restroom	4	38.0016302, -120.5443927
2	Calaveras	(Lake)	New Melones Lake Marina	6503 Glory Hole Rd.	Angels Camp	95222	(209) 785-3300	Pumpout	1	38.0016302, -120.5443927
2	Placer	Lake Tahoe	North Tahoe Marina	7360 North Lake Blvd	Tahoe Vista	96148	(530) 546-8248	Pumpout	3	39.2379483, -120.0429824
2	Placer	Lake Tahoe	Obexer's Boat Company	5300 West Lake Blvd	Homewood	96141	(530) 525-7962	Dump Station	1	39.0821421, -120.1582307
2	Amador	Lake Pardee	Pardee Lake Recreation, Inc.	4900 Stony Creek Rd.	Ione	95640	(209) 772-1472	Floating Restroom	10	38.2856883, -120.868912
2	Placer	Lake Tahoe	Sierra Boat Company, Inc.	5146 North Lake Blvd	Carnelian Bay	96140	(530) 546-2551	Pumpout	1	39.2264742, -120.0805151
2	Nevada	Englebright Lake	Skippers Cove Marina	13104 Marina Drive	Smartsville	95977	(530) 432-6302	Pumpout	1	39.24222, -121.262563
2	Nevada	Englebright Lake	Skippers Cove Marina	13104 Marina Drive	Smartsville	95977	(530) 432-6302	Dump Station	1	39.24222, -121.262563
2	El Dorado	Lake Tahoe	Tahoe Keys Marina and Yacht Club	2435 Venice Drive E	South Lake Tahoe	96150	(530) 541-2155	Pumpout	1	38.9341357, -120.0013167
2	El Dorado	Wright's Lake	Wright's Lake Campground	Wrights Lake Rd.	Kyburz	95720	(530) 644-6048	Dump Station	2	38.8125562, -120.2421175
3	Butte	Lake Oroville	Bidwell Canyon Marina	801 Bidwell Canyon Rd.	Oroville	95966	(530) 589-9175	Floating Restroom	3	39.5318426, -121.4518043
3	Butte	Lake Oroville	Bidwell Canyon Marina	801 Bidwell Canyon Rd.	Oroville	95966	(530) 589-9175	Dump Station	1	39.5318426, -121.4518043
3	Butte	Lake Oroville	Bidwell Canyon Marina	801 Bidwell Canyon Rd.	Oroville	95966	(530) 589-9175	Pumpout	5	39.5318426, -121.4518043
3	Sacramento	Delta	Boathouse Marina	13900 River Rd.	Locke	95960	(916) 776-1204	Pumpout	1	38.250905, -121.510698
3	Yuba	Bullards Bar Reservoir	Bullards Bar Reservoir Floating Restroom	Bullards Bar Reservoir	Camptonville	95922	(530) 741-5000	Floating Restroom	8	39.4521323, -121.048598
3	Sacramento	Delta	Cliffs River Marina, Inc.	8651 River Rd.	Sacramento	95832	(916) 665-1611	Pumpout	1	38.4445283, -121.5005319
3	Yuba	Collins Lake	Collins Lake	7530 Collins Lake Rd.	Browns Valley	95918	(530) 692-1600	Dump Station	3	39.3375239, -121.3270973
3	Sacramento	Sacramento River	Dagmar's Landing	14181 River Rd. Highway 160	Walnut Grove	95690	(916) 776-1961	Pumpout	1	38.2401903, -121.5219144
3	Madera	Eastman Lake	Eastman Lake	Rd. 29	Raymond	93653	(559) 689-3255	Dump Station	1	37.1585725, -120.0022928

Table 14. Publicly accessible sewage resource facilities, cont.

Table 14: Publicly accessible sewage resource facilities

Region	County	Waterway	Name of Facility	Address	City	Zip Code	Phone Number	Sewage Resource	Quantity	GPS
3	Sacramento	Delta	Eddo's Harbor & RV Park	19530 Sherman Island East Levee Rd.	Rio Vista	94571	(510) 757-5314	Pumpout	1	38.0506231, -121.7009053
3	Yuba	Bullards Bar Reservoir	Emerald Cove Resort and Marina	12571 Old Marysville Rd.	Dobbins	95935	(877) 692-3201	Dump Station	1	39.4279643, -121.0965731
3	Yuba	Bullards Bar Reservoir	Emerald Cove Resort and Marina	12571 Old Marysville Rd.	Dobbins	95935	(877) 692-3201	Pumpout	1	39.4279643, -121.0965731
3	Sacramento	Sacramento River	Folsom Lake Marina (Brown's)	7806 Folsom Auburn Rd	Folsom	95630	(916) 988-0205	Floating Restroom	3	38.7125483, -121.1747707
3	Sacramento	Sacramento River	Folsom Lake Marina (Brown's)	7806 Folsom Auburn Rd	Folsom	95630	(916) 988-0205	Dump Station	1	38.7125483, -121.1747707
3	Sacramento	Sacramento River	Folsom Lake Marina (Brown's)	7806 Folsom Auburn Rd	Folsom	95630	(916) 988-0205	Pumpout	1	38.7125483, -121.1747707
3	Madera	Hensley Lake	Hidden View Recreation Area	25207 Rd. 407	Raymond	93653	(559) 673-5151	Dump Station	1	37.1151935, -119.8948755
3	San Joaquin	Delta	King Island Resort	11530 W. Eight Mile Rd.	Stockton	95219	(209) 477-5364	Pumpout	1	38.056833, -121.457812
3	Sacramento	San Joaquin River	Korth's Pirate's Lair Marina	169 West Brannan Island Rd.	Isleton	95641	(916) 777-6464	Pumpout	1	38.0980061, -121.5685077
3	Tulare	Kaweah Reservoir	Lake Kaweah Floating Restroom	34443 Sierra Drive	Lemon Cove	93244	(559) 597-2301	Floating Restroom	1	36.4022031, -119.0064018
3	Butte	Lake Oroville	Lake Oroville Floating Restroom	Lake Oroville	Oroville	95966	(530) 538-2200	Floating Restroom	6	39.5137752, -121.556359
3	Butte	Lake Oroville	Lake Oroville Marina	3428 Pentz Rd.	Paradise	95969	(530) 877-2883	Pumpout	1	39.6764404, -121.5673242
3	Tulare	Kaweah Reservoir	Lemon Hill Recreation Area Marina	34467 Sierra Dr.	Lemon Cove	93244	(559) 597-2526	Dump Station	1	36.4090735, -119.000969
3	Fresno	Millerton Lake	Millerton Lake State Recreation Area	5290 Millerton Rd.	Friant	93626	(559) 822-2332	Floating Restroom	2	36.9850918, -119.6758488
3	Sacramento	Georgina Slough	Oxbow	100 Oxbow Marina Dr	Iseleton	95641	(916) 777-6060	Pumpout	1	38.1515963, -121.5910739
3	San Joaquin	Delta	Paradise Point Marina	8095 Rio Blanco Rd.	Stockton	95219	(209) 952-1000	Pumpout	2	38.0440571, -121.4189941
3	Fresno	Pine Flat Lake	Pine Flat Lake Marina	30801 E. Sunnyslope Rd.	Piedra	93649	(559) 787-2506	Floating Restroom	4	36.8566359, -119.3388169
3	Fresno	Pine Flat Lake	Pine Flat Lake Marina	30801 E. Sunnyslope Rd.	Piedra	93649	(559) 787-2506	Pumpout	1	36.8566359, -119.3388169
3	Sacramento	Sacramento River	River View Marina	1801 Garden Highway	Sacramento	95833	(916) 925-4100	Pumpout	1	38.6048556, -121.5317567
3	Sacramento	Sacramento River	Riverbank Marina	1371 Garden Highway #200	Sacramento	95834	(916) 922-0716	Pumpout	1	38.6054459, -121.524723
3	Sacramento	Sacramento River	Riverbank Marina	1371 Garden Highway #200	Sacramento	95834	(916) 922-0716	Dump Station	1	38.6054459, -121.524723
3	Sacramento	Sacramento River	Sacramento Delta Bay Marina	950 W Brannan Island Road	Isleton	95641	(916) 777-4153	Pumpout	1	38.1090547, -121.6031491
3	Sacramento	Sacramento River	Sacramento Marina	2710 Ramp Way	Sacramento	95818	(916) 808-5712	Pumpout	1	38.5645084, -121.5181096
3	Yolo	Sacramento River	Sherwood Harbor Marina & RV Park	3505 South River Rd.	West Sacramento	95691	(916) 371-3471	Pumpout	1	38.5326388, -121.5285527
3	San Joaquin	Delta	Stockton Yacht Club	3235 River Drive	Stockton	95204	(209) 946-9259	Pumpout	1	37.9716565, -121.3509069
3	Fresno	Pine Flat Lake	Trimmer Recreation Area Campground	Trimmer Springs Rd.	Sanger	93657	(559) 855-2039	Floating Restroom	4	36.8181951, -119.3876988
3	Sacramento	Delta	Vieira's Resort	15476 Highway 160	Isleton	95641	(916) 777-6661	Dump Station	1	38.170971, -121.639371
3	San Joaquin	Delta	Village West Marina	Embarcadero Drive	Stockton	95269	(209) 951-1511	Pumpout	1	37.9989422, -121.366401
3	Sacramento	Delta- Snodgrass Slough	Walnut Grove Marina	1400 Old Levee Rd.	Walnut Grove	95690	(916) 776-1181	Dump Station	1	38.2313124, -121.504946
3	Sacramento	Delta- Snodgrass Slough	Walnut Grove Marina	1400 Old Levee Rd.	Walnut Grove	95690	(916) 776-1181	Pumpout	1	38.2313124, -121.504946
3	Sacramento	Delta- Mokelumne River	Willow Berm Marina	140 Brannan Island Rd.	Isleton	95641	(916) 777-6313	Pumpout	2	38.105071, -121.56843
3	Kern	Lake Isabella	Mike's Kern Valley Marina	9651 Highway 178	Lake Isabella	93240	(760) 379-1007	Floating Restroom	1	35.647155, -118.474840
4	Contra Costa	Delta	Antioch Marina	Base of "L Street", #5, Marina Plaza	Antioch	94509	(925) 779-6957	Pumpout	2	38.02008, -121.820199
4	Alameda	Bay	Ballena Isle Marina	1150 Ballena Blvd, # 111	Alameda	94501	(510) 523-5528	Pumpout	1	37.7674054, -122.2876739
4	Solano	Carquinez Strait	Benicia Marina	266 East B St.	Benicia	94510	(707) 745-2628	Pumpout	1	38.0448468, -122.1577075
4	Contra Costa	Delta	Bethel Harbor	3405 Harbor Rd.	Bethel Island	94511	(925) 684-2141	Pumpout	2	38.03955, -121.6328411
4	San Mateo	Bay	Brisbane Marina	400 Sierra Point PkWay	Brisbane	94005	(650) 583-6975	Pumpout	1	37.6731868, -122.381123
4	San Mateo	Bay	Brisbane Marina	400 Sierra Point PkWay	Brisbane	94005	(650) 583-6975	Dump Station	1	37.6731868, -122.381123
4	Alameda	Bay	City of Berkeley Marina	201 University Ave	Berkeley	94710	(510) 981-6740	Pumpout	3	37.8641745, -122.3134586
4	Marin	Richardson Bay	Clipper Yacht Harbor	310 Harbor Drive	Sausalito	94965	(415) 332-3500	Dump Station	1	37.8686289, -122.4980917
4	Marin	Richardson Bay	Clipper Yacht Harbor	310 Harbor Drive	Sausalito	94965	(415) 332-3500	Pumpout	1	37.8686289, -122.4980917
4	San Mateo	Bay	Coyote Point Marina	1900 Coyote Point Dr.	San Mateo	94401	(650) 573-2594	Pumpout	1	37.5907372, -122.3186016
4	Solano	Delta	Delta Marina	100 Marina Dr.	Rio Vista	94571	(707) 374-2315	Pumpout	1	38.149496, -121.693635
4	Contra Costa	Delta	Discovery Bay Harbor/Community Center	1800 Willow Lake Rd.	Discovery Bay	94505	(925) 634-1131	Pumpout	1	37.9026319, -121.599804
4	Contra Costa	Delta	Driftwood Yacht Club	6346 Bridgehead Rd.	Oakley	94561	(925) 757-9449	Pumpout	1	38.0172564, -121.7539148
4	Alameda	Bay	Emery Cove Yacht Harbor	3300 Powell St. #203	Emeryville	94608	(510) 428-0505	Pumpout	2	37.8373566, -122.3092901
4	Alameda	Bay	Emeryville Marina	3310 Powell St.	Emeryville	94608	(510) 654-3716	Pumpout	1	37.8387057, -122.3146048
4	San Francisco	Bay	Fisherman's Wharf Marina	2950 Hyde Street	San Francisco	94109	(415) 673-2928	Pumpout	1	37.8080418, -122.4207525
4	Marin	Richardson Bay	Galilee Harbor	300 Napa Street	Sausalito	94965	(415) 332-8554	Pumpout	1	37.8617586, -122.4887891
4	Solano	Carquinez Strait	Glen Cove Marina	2000 Glen Cove Rd.	Vallejo	94591	(707) 552-3236	Pumpout	1	38.0677777, -122.2137465
4	Alameda	Oakland Estuary/Harbor	Grand Marina	2099 Grand Street	Alameda	94501	(510) 865-1200	Pumpout	1	37.7788452, -122.2522293
4	Contra Costa	Delta	Holland Riverside Marina	7000 Holland Tract Rd.	Knightsen	94548	(925) 322-4084	Pumpout	1	37.978147, -121.596675
4	Napa	Lake Berryessa	Lake Berryessa Floating Restroom	Lake Berryessa	Napa	94558	(707) 966-2111	Floating Restroom	6	38.6097407, -122.254045
4	Napa	Lake Berryessa	Lake Berryessa Floating Restroom	Lake Berryessa	Napa	94558	(707) 966-2111	Pumpout	2	38.6097407, -122.254045
4	Sonoma	Lake Sonoma	Lake Sonoma	100 Marina Dr	Healdsburg	95425	(707) 433-2200	Pumpout	1	38.765841, -123.096243
4	Sonoma	Lake Sonoma	Lake Sonoma	100 Marina Dr	Healdsburg	95425	(707) 433-2200	Floating Restroom	2	38.765841, -123.096243

Table 14. Publicly accessible sewage resource facilities, cont.

Table 14: Publicly accessible sewage resource facilities

Region	County	Waterway	Name of Facility	Address	City	Zip Code	Phone Number	Sewage Resource	Quantity	GPS
4	Contra Costa	Carquinez Strait	Lauritzen Yacht Harbor	115 Lauritzen Lane	Oakley	94561	(925) 757-1916	Dump Station	1	38.0165563, -121.7476191
4	Contra Costa	Carquinez Strait	Lauritzen Yacht Harbor	115 Lauritzen Lane	Oakley	94561	(925) 757-1916	Pumpout	2	38.0165563, -121.7476191
4	Marin	Bay	Loch Lomond Marina	110 Loch Lomond Drive	San Rafael	94901	(415) 454-7228	Pumpout	2	37.9730519, -122.483658
4	Contra Costa	Bay	Marina Bay Yacht Harbor	1340 Marina Way South	Richmond	94804	(510) 236-1013	Pumpout	2	37.9136558, -122.3547228
4	Marin	Richardson Bay	Marina Plaza Harbor	2310 Marinship Way	Sausalito	94965	(415) 332-4723	Pumpout	1	37.8660562, -122.4957448
4	Alameda	Oakland Estuary/Harbor	Marina Village Yacht Harbor	1030 Marina Village Parkway	Alameda	94501	(510) 521-0905	Pumpout	2	37.7848079, -122.2690885
4	Napa	Lake Berryessa	Markley Cove Resort	7521 Highway 128	Napa	94558	(707) 966-2134	Pumpout	1	38.4924736, -122.1263005
4	Contra Costa	Carquinez Strait	Martinez Marina	7 North Court Street	Martinez	94553	(925) 313-0942	Pumpout	1	38.0242755, -122.137694
4	Napa	Napa River	Napa Valley Marina, Inc.	1200 Milton Rd.	Napa	94559	(707) 252-8011	Pumpout	1	38.2196691, -122.3138514
4	Contra Costa	Delta	New Life Marina	1200 Taylor Road	Bethel Island	94511	(925) 684-2166	Pumpout	1	38.0342154, -121.6703023
4	San Mateo	Bay	Oyster Cove Marina	385 Oyster Point Blvd, #8A	South San Francisco	94080	(650) 952-5540	Pumpout	1	37.6654066, -122.3850422
4	San Mateo	Bay	Oyster Cove Marina	385 Oyster Point Blvd, #8A	South San Francisco	94080	(650) 952-5540	Dump Station	1	37.6654066, -122.3850422
4	San Mateo	Bay	Oyster Point Marina	95 Harbor Master Rd. , #1	South San Francisco	94080	(650) 952-0808	Dump Station	1	37.662363, -122.3749752
4	San Mateo	Bay	Oyster Point Marina	95 Harbor Master Rd. , #1	South San Francisco	94080	(650) 952-0808	Pumpout	1	37.662363, -122.3749752
4	Marin	Bay	Paradise Cay Yacht Harbor	300 Trinidad Drive	Tiburon	94920	(415) 435-4292	Pumpout	2	37.916087, -122.47744
4	Alameda	Bay	Park Street Landing Marina	2308 Blanding Ave	Alameda	94501	(510) 521-7027	Pumpout	1	37.770784, -122.239088
4	Sonoma	Petaluma River	Petaluma Marina	781 Baywood Drive	Petaluma	94954	(707) 778-4489	Pumpout	1	38.2289062, -122.6131744
4	San Francisco	Bay	PIER 39 Marina	Pier 39	San Francisco	94133	(415) 705-5436	Pumpout	1	37.808673, -122.409821
4	San Mateo	Pillar Point Harbor	Pillar Point Harbor	1 Johnson Pier	Half Moon Bay	94019	(650) 726-4382	Pumpout	1	37.5030392, -122.4823034
4	San Mateo	Pillar Point Harbor	Pillar Point Harbor	1 Johnson Pier	Half Moon Bay	94019	(650) 726-4382	Dump Station	1	37.5030392, -122.4823034
4	Contra Costa	Delta-New York Slough	Pittsburg Marina	51 Marina Blvd	Pittsburg	94565	(925) 439-4958	Pumpout	3	38.0355106, -121.8834327
4	Napa	Lake Berryessa	Pleasure Cove Marina / Steel Harbor	6100 State Highway 128	Napa	94558	(707) 966-9600	Pumpout	1	38.4390879, -122.1529375
4	Alameda	Oakland Estuary/Harbor	Harbor Master's Office	530 Water Street	Oakland	94607	(510) 627-1100	Pumpout	1	37.7957373, -122.2788174
4	San Mateo	Redwood Creek	Redwood City Municipal Marina	451 Seaport Blvd	Redwood City	94063	(650) 306-4150	Pumpout	1	37.5009249, -122.2115823
4	Marin	Richardson Bay	Richardson Bay Marina	100 Gate Six Rd.	Sausalito	94965	(415) 332-5510	Pumpout	1	37.8756715, -122.5053827
4	San Francisco	Bay	West Harbor & Gashouse Cove	3950 Scott St	San Francisco	94123	(415) 831-6322	Pumpout	2	37.8066034, -122.4425796
4	Marin	Bay	San Rafael Yacht Harbor	557 Francisco Blvd East	San Rafael	94901	(415) 456-1600	Dump Station	1	37.967056, -122.514121
4	Marin	Richardson Bay	Schoonmaker Point Marina	85 Liberty Ship Way #205	Sausalito	94965	(415) 331-5550	Pumpout	2	37.864037, -122.4896539
4	San Francisco	Bay	South Beach Harbor	Pier 40 The Embarcadero	San Francisco	94107	(415) 495-4911	Pumpout	1	37.7819503, -122.3878795
4	Sonoma	Bodega Bay	Spud Point Marina	Westshore Rd.	Bodega Bay	94923	(707) 875-3535	Pumpout	1	38.3178784, -123.0565494
4	Contra Costa	Delta	Sugar Barge Resort Marina	4515 Willow Rd.	Bethel Island	94511	(925) 684-8575	Pumpout	1	38.0266805, -121.6123315
4	Contra Costa	Delta	Sugar Barge Resort Marina	4515 Willow Rd.	Bethel Island	94511	(925) 684-8575	Dump Station	1	38.0266805, -121.6123315
4	Solano	Suisun Slough	Suisun City Marina	800 Kellogg St.	Suisun City	94585	(707) 429-2628	Pumpout	1	38.237339, -122.0389295
4	San Francisco	Bay	Treasure Island Marina	1 Clipper Cove way	San Francisco	94130	(415) 981-2416	Pumpout	1	37.8160022, -122.3897852
4	Solano	Mare Island Strait	Vallejo Municipal Marina	42 Harbor Way	Vallejo	94590	(707) 648-4370	Pumpout	2	38.1089791, -122.2679928
4	San Mateo	Bay	Westpoint Harbor	1529 Seaport Blvd.	Redwood City	94063	(650) 701-0545	Pumpout	1	37.5116028, -122.1946506
5	San Luis Obispo	Lake Nacimiento	Lake Nacimiento	10625 Nacimiento Lake Drive	Bradley	93426	(800) 323-3839	Floating Restroom	3	35.748333, -120.923861
5	San Luis Obispo	Morro Bay	Morro Bay - South T Pier	1185 Embarcadero	Morro Bay	93442	(805) 772-6278	Pumpout	1	35.369362, -120.855923
5	San Luis Obispo	Morro Bay	Morro Bay - Tidelands Park	332 Embarcadero	Morro Bay	93442	(805) 772-6278	Pumpout	1	35.359980, -120.851790
5	San Luis Obispo	Morro Bay	Morro Bay - Tidelands Park	332 Embarcadero	Morro Bay	93442	(805) 772-6278	Dump Station	1	35.359980, -120.851790
5	San Luis Obispo	Morro Bay	Morro Bay Yacht Club	541 Embarcadero	Morro Bay	93442	(805) 991-7245	Pumpout	1	35.362888, -120.852591
5	San Luis Obispo	Port San Luis Harbor	Port San Luis Harbor District	3950 Avila Beach Dr.	Avila Beach	93424	(805) 595-5400	Pumpout	1	35.167940, -120.753577
5	Santa Barbara	Lake Cachuma	Cachuma Lake Recreation Area	2225 Highway 154	Santa Barbara	93105	(805) 686-5097	Floating Restroom	2	34.573639, -119.927333
5	Santa Barbara	Santa Barbara Harbor	Santa Barbara Boat Launch	133 Harbor Way	Santa Barbara	93109	(805) 564-5530	Dump Station	1	34.408577, -119.691959
5	Santa Barbara	Santa Barbara Harbor	Santa Barbara Boat Launch	133 Harbor Way	Santa Barbara	93109	(805) 564-5530	Pumpout	1	34.408577, -119.691959
5	Santa Barbara	Santa Barbara Harbor	Santa Barbara Harbor	132-A Harbor Way	Santa Barbara	93109	(805) 564-5530	Pumpout	1	34.403551, -119.691894
5	Santa Barbara	Santa Barbara Harbor	Santa Barbara Harbor	132-A Harbor Way	Santa Barbara	93109	(805) 564-5530	Pumpout	1	34.405816, -119.689443
5	Santa Barbara	Santa Barbara Harbor	Santa Barbara Harbor	132-A Harbor Way	Santa Barbara	93109	(805) 564-5530	Pumpout	1	34.406248, -119.689207
5	Santa Barbara	Santa Barbara Harbor	Santa Barbara Harbor	132-A Harbor Way	Santa Barbara	93109	(805) 564-5530	Dump Station	1	34.403533, -119.691834
5	Santa Barbara	Santa Barbara Harbor	Santa Barbara Harbor Fuel Dock	132-A Harbor Way	Santa Barbara	93109	(805) 564-5530	Pumpout	1	34.404656, -119.692366
5	Monterey	Monterey Bay	Harbormaster	250 Figueroa St.	Monterey	93940	(831) 646-3950	Pumpout	1	36.6013627, -121.8899843
5	Monterey	Lake San Antonio	Resort and Marina	2610 San Antonio Rd.	Bradley	93426	(805) 237-4928	Dump Station	3	35.8346006, -120.9750407
5	Monterey	Monterey Bay	Cove Marina	32 Cannery Row	Monterey	93940	(831) 373-7857	Pumpout	1	36.6091037, -121.8945106
5	Monterey	Monterey Bay	Moss Landing Harbor District	7881 Sandholdt Rd.	Moss Landing	95039	(831) 633-2461	Pumpout	1	36.8000818, -121.7860826
5	Santa Cruz	Santa Cruz Harbor	Ramp - fuel dock)	135 5th Ave	Santa Cruz	95062	(831) 475-6161	Pumpout	1	36.9640563, -122.0003649
6	Los Angeles	Alamitos Bay	Alamitos Bay - Davies Launching Ramp	6204 Marina Dr	Long Beach	90803	(562) 570-8636	Pumpout	1	33.757933,-118.117163

Table 14. Publicly accessible sewage resource facilities, cont.

Table 14: Publicly accessible sewage resource facilities

Region	County	Waterway	Name of Facility	Address	City	Zip Code	Phone Number	Sewage Resource	Quantity	GPS
6	Los Angeles	Alamitos Bay	Dept.	205 N. Marina Drive	Long Beach	90803	(562) 570-3215	Pumpout	1	33.750397,-118.114261
6	Los Angeles	Alamitos Bay	Harbor Master Dock	205 N. Marina Drive	Long Beach	90803	(562) 570-3215	Pumpout	1	33.749595,-118.115668
6	Los Angeles	Alamitos Bay	Harbor Master Dock	205 N. Marina Drive	Long Beach	90803	(562) 570-3215	Pumpout	1	33.749539,-118.115748
6	Los Angeles	Alamitos Bay	Marina Pacifica Boat Slips	6380-B East Pacific Coast Highway	Long Beach	90803	(562) 498-7318	Pumpout	1	33.758471,-118.114193
6	Los Angeles	Alamitos Bay	Marina Pacifica Boat Slips	6380-B East Pacific Coast Highway	Long Beach	90803	(562) 498-7318	Pumpout	1	33.760887,-118.116821
6	Los Angeles	Harbor	Avalon Bay (Main Harbor)	22 Pier	Avalon	90704	(310) 510-0535	Pumpout	1	33.348512,-118.325187
6	Los Angeles	Harbor	Avalon Bay (Main Harbor)	22 Pier	Avalon	90704	(310) 510-0535	Pumpout	1	33.348501,-118.325211
6	Los Angeles	Castaic Lake	Castaic Lake State Recreation Area	32132 Castaic Lake Drive	Castaic	91384	(661) 257-4050	Floating Restroom	1	34.545413,-118.616695
6	Los Angeles	Castaic Lake	Castaic Lake State Recreation Area	32132 Castaic Lake Drive	Castaic	91384	(661) 257-4050	Floating Restroom	1	34.545525,-118.583620
6	Los Angeles	King Harbor	King Harbor - Harbor Patrol	280 Marina Way	Redondo Beach	90277	(310) 710-1345	Pumpout	1	33.848074,-118.399295
6	Los Angeles	King Harbor	King Harbor - Harbor Patrol	280 Marina Way	Redondo Beach	90277	(310) 710-1345	Pumpout	1	33.846754,-118.398687
6	Los Angeles	Marina Del Rey	Burton Chace Park Transient Docks	13650 Mindanao	Marina Del Rey	90292	(310) 305-9595	Pumpout	1	33.976059,-118.446693
6	Los Angeles	Marina Del Rey	Del Rey Landing	13800 Bora Bora Way	Marina Del Rey	90292	(310) 864-4444	Pumpout	1	33.971666,-118.44946
6	Los Angeles	Marina Del Rey	Del Rey Landing	13800 Bora Bora Way	Marina Del Rey	90292	(310) 864-4444	Pumpout	1	33.971973,-118.449461
6	Los Angeles	Marina Del Rey	Essex Marina City Club	4333 Admiralty Way #10	Marina Del Rey	90292	(310) 823-3032	Pumpout	1	33.983059,-118.455634
6	Los Angeles	Marina Del Rey	Holiday, Dolphin, Panay Way Marina	14025 Panay Way	Marina Del Rey	90292	(877) 247-1734	Pumpout	1	33.978977,-118.449794
6	Los Angeles	Marina Del Rey	Marina Del Rey Public Launch Ramp	13477 Fiji Way (Basin H)	Marina Del Rey	90292	(424) 526-7892	Pumpout	1	33.977408,-118.44186
6	Los Angeles	Marina Del Rey	Anchorage 47	13575 Mindanao Way	Marina Del Rey	90292	(310) 301-9152	Pumpout	1	33.977780,-118.446689
6	Los Angeles	Port of Los Angeles	California Yacht Marina - Wilmington	Berth 202 Box 36	Wilmington	90744	(310) 834-7113	Pumpout	1	33.765999,-118.252947
6	Los Angeles	Port of Los Angeles	Newmarks Yacht Centre	Berth 204, 700 Anchorage Rd.	Wilmington	90744	(310) 834-2830	Pumpout	1	33.763530,-118.251527
6	Los Angeles	Pyramid Lake	Pyramid Lake	Off Interstate 5, Smokey Bear Exit	Valencia	91355	(661) 295-7155	Floating Restroom	2	34.654887,-118.775008
6	Los Angeles	Queensway Bay	Long Beach Shoreline Marina	450 East Shoreline Drive	Long Beach	90802	(562) 570-4950	Pumpout	1	33.759027,-118.184275
6	Los Angeles	Queensway Bay	Long Beach Shoreline Marina	450 East Shoreline Drive	Long Beach	90802	(562) 570-4950	Pumpout	1	33.758727,-118.184093
6	Los Angeles	Queensway Bay	Long Beach Shoreline Marina-public dock	450 East Shoreline Drive	Long Beach	90802	(562) 570-4950	Pumpout	1	33.759069,-118.191524
6	Los Angeles	Queensway Bay	Long Beach Shoreline Marina-public dock	450 East Shoreline Drive	Long Beach	90802	(562) 570-4950	Pumpout	1	33.758834,-118.191460
6	Los Angeles	Queensway Bay	Long Beach Shoreline Marina-public dock	450 East Shoreline Drive	Long Beach	90802	(562) 570-4950	Pumpout	1	33.75861,-118.191413
6	Los Angeles	Queensway Bay	Rainbow Harbor/Rainbow Marina	200B Aquarium Way	Long Beach	90802	(562) 570-8636	Pumpout	1	33.761042,-118.193075
6	Los Angeles	Queensway Bay	Rainbow Harbor/Rainbow Marina	200B Aquarium Way	Long Beach	90802	(562) 570-8636	Dump Station	1	33.760843,-118.196461
6	Los Angeles	Pedro Bay	Marina)	2293 South Miner Street	San Pedro	90731	(310) 514-4985	Pumpout	1	33.717105,-118.277669
6	Los Angeles	Harbors	Two Harbors	1 Banning House Rd.	Two Harbors	90704	(310) 510-4253	Pumpout	1	33.442016,-118.498057
6	Ventura	Channel Islands Harbor	Channel Islands East Bank Guest Dock	3900 Pelican Way L#5200	Oxnard	93035	(805) 382-3011	Pumpout	1	34.173305,-119.223459
6	Ventura	Channel Islands Harbor	Channel Islands East Bank Guest Dock	3900 Pelican Way L#5200	Oxnard	93035	(805) 382-3011	Pumpout	1	34.172675,-119.223477
6	Ventura	Channel Islands Harbor	Channel Islands Harbor Patrol Dock	3900 Pelican Way L#5200	Oxnard	93035	(805) 382-3011	Pumpout	1	34.16195,-119.222931
6	Ventura	Channel Islands Harbor	Peninsula Park - County Guest Dock	3900 Pelican Way L#5200	Oxnard	93035	(805) 382-3011	Pumpout	1	34.170109,-119.227451
6	Ventura	Channel Islands Harbor	Seabridge Marina	1601 South Victoria Ave., Suite 101	Oxnard	93035	(805) 985-8228	Pumpout	1	34.185310,-119.223274
6	Ventura	Lake Casitas	Lake Casitas Recreation Area	11311 Santa Ana Rd.	Ventura	93001	(805) 649-2251	Floating Restroom	1	34.401944,-119.348139
6	Ventura	Lake Casitas	Launch Ramp	11311 Santa Ana Rd.	Ventura	93001	(805) 649-2233	Dump Station	2	34.382594,-119.331374
6	Ventura	Lake Piru	Lake Piru Recreation Area	4780 Piru Canyon Rd.	Piru	93040	(805) 525-4431	Floating Restroom	2	34.471159,-118.745832
6	Ventura	Ventura Harbor	Island Packer Cruises	1691 Spinnaker Drive	Ventura	93001	(805) 642-1393	Pumpout	1	34.244562,-119.264453
6	Ventura	Ventura Harbor	Ventura Harbor Marine Fuel	1551 Spinnaker Drive	Ventura	93001	(805) 644-4048	Pumpout	1	34.241168,-119.263107
6	Ventura	Ventura Harbor	Ventura Harbor Marine Fuel	1551 Spinnaker Drive	Ventura	93001	(805) 644-4048	Pumpout	1	34.241302,-119.263043
6	Ventura	Ventura Harbor	Ventura Isle Marina (an Almar Marina)	1363 Spinnaker Drive	Ventura	93001	(805) 644-5858	Pumpout	1	34.244518,-119.261676
6	Ventura	Ventura Harbor	Ventura West Marina	1198 Navigator Drive	Ventura	93001	(805) 644-8266	Pumpout	1	34.245497,-119.260859
6	Ventura	Ventura Harbor	Ventura West Marina	1198 Navigator Drive	Ventura	93001	(805) 644-8266	Pumpout	1	34.245486,-119.260413
6	Ventura	Ventura Harbor	Ventura West Marina	1198 Navigator Drive	Ventura	93001	(805) 644-8266	Dump Station	2	34.245486,-119.260413
7	Orange	Dana Point Harbor	Dana Point - East Basin Marina	34555 Casitas Place	Dana Point	92629	(949) 496-8137	Dump Station	1	33.458455,-117.693421
7	Orange	Dana Point Harbor	Dana Point - Harbor Patrol	29005 Dana Drive	Dana Point	92629	(949) 496-8137	Pumpout	1	33.458437,-117.693399
7	Orange	Dana Point Harbor	Dana Point Harbor Guest Docks	24650 Dana Point Harbor Drive	Dana Point	92629	(949) 496-8137	Pumpout	1	33.461443,-117.703270
7	Orange	Dana Point Harbor	Dana West Marina	24500 Dana Point Harbor Drive	Dana Point	92629	(949) 493-6222	Pumpout	1	33.460836,-117.703384
7	Orange	Dana Point Harbor	Dana West Marina	24500 Dana Point Harbor Drive	Dana Point	92629	(949) 493-6222	Pumpout	1	33.461459,-117.702892
7	Orange	Huntington Harbour	Department	3281 Warner Ave	Huntington Beach	92649	(714) 536-5287	Pumpout	1	33.712404,-118.061093
7	Orange	Huntington Harbour	Department	3281 Warner Ave	Huntington Beach	92649	(714) 536-5287	Dump Station	1	33.712365,-118.061246
7	Orange	Huntington Harbour	Peter's Landing Marina	16400 Pacific Coast Highway #108	Huntington Beach	92649	(714) 840-1387	Pumpout	1	33.725573,-118.074610
7	Orange	Huntington Harbour	Sunset Aquatic Marina	2901 Edinger Ave	Huntington Beach	92649	(562) 592-2833	Pumpout	1	33.728480,-118.077424
7	Orange	Newport Harbor	Harbor Post 291 American Legion	215 15th St.	Newport Beach	92663	(949) 673-5002	Pumpout	1	33.608387,-117.920519
7	Orange	Newport Harbor	Harbor Post 291 American Legion	215 15th St.	Newport Beach	92663	(949) 673-5002	Pumpout	1	33.608366,-117.920535

Table 14. Publicly accessible sewage resource facilities, cont.

Table 14: Publicly accessible sewage resource facilities

Region	County	Waterway	Name of Facility	Address	City	Zip Code	Phone Number	Sewage Resource	Quantity	GPS
7	Orange	Newport Harbor	Balboa Bay Club	1221 West Coast HaigHighway	Newport Beach	92663	(949) 630-4422	Pumpout	1	33.616224, -117.917828
7	Orange	Newport Harbor	Balboa Fun Zone Marina	400 Main Street	Newport Beach	92663	(949) 644-3041	Pumpout	1	33.603265, -117.899448
7	Orange	Newport Harbor	Balboa Yacht Basin	829 Harbor Island Drive	Newport Beach	92660	(949) 673-0360	Pumpout	1	33.609559, -117.894680
7	Orange	Newport Harbor	Bayside Village Marina	300 East Coast Highway	Newport Beach	92660	(949) 673-1331	Pumpout	1	33.617907, -117.902222
7	Orange	Newport Harbor	Bayside Village Marina	300 East Coast Highway	Newport Beach	92660	(949) 673-1331	Dump Station	1	33.617907, -117.902222
7	Orange	Newport Harbor	Dock	Fernando St. & Edgewater	Newport Beach	92663	(949) 644-3041	Pumpout	1	33.605257, -117.902472
7	Orange	Newport Harbor	Lido Marina Village	3422 Via Lido	Newport Beach	92663	(949) 514-1249	Pumpout	1	33.619827, -117.928517
7	Orange	Newport Harbor	Newport Dunes Marina	101 N. Bayside Drive	Newport Beach	92660	(949) 729-1100	Pumpout	1	33.620155, -117.895476
7	Orange	Newport Harbor	Newport Dunes Marina	101 N. Bayside Drive	Newport Beach	92660	(949) 729-1100	Pumpout	1	33.619589, -117.891476
7	Orange	Newport Harbor	Newport Dunes Marina	101 N. Bayside Drive	Newport Beach	92660	(949) 729-1100	Dump Station	1	33.618943, -117.895428
7	Orange	Newport Harbor	Division	1901 Bayside Drive	Corona Del Mar	92625	(949) 723-1002	Pumpout	1	33.602129, -117.883259
7	San Diego	Mission Bay	Marina	1441 Quivira Rd.	San Diego	92109	(619) 221-4858	Pumpout	1	32.764565, -117.238818
7	San Diego	Mission Bay	Mission Bay Park Headquarters	2581 Quivira Court MS 32A	San Diego	92109	(619) 235-1154	Pumpout	1	32.761359, -117.240643
7	San Diego	Mission Bay	Mission Bay Park Headquarters	2581 Quivira Court MS 32A	San Diego	92109	(619) 235-1154	Pumpout	1	32.761259, -117.240617
7	San Diego	Mission Bay	SeaWorld Marina	1660 South Shores Rd.	San Diego	92109	(619) 226-3910	Pumpout	1	32.766785,-117.230880
7	San Diego	Mission Bay	SeaWorld Marina	1660 South Shores Rd.	San Diego	92109	(619) 226-3910	Dump Station	1	32.766785,-117.230880
7	San Diego	Oceanside Harbor	Oceanside Harbor District	1540 Harbor Drive North	Oceanside	92054	(760) 435-4000	Pumpout	1	33.20944, -117.394685
7	San Diego	Oceanside Harbor	Oceanside Harbor District	1540 Harbor Drive North	Oceanside	92054	(760) 435-4000	Pumpout	1	33.205866, -117.393309
7	San Diego	Oceanside Harbor	Oceanside Harbor District	1540 Harbor Drive North	Oceanside	92054	(760) 435-4000	Pumpout	1	33.206146, -117.393606
7	San Diego	Oceanside Harbor	Oceanside Harbor District	1540 Harbor Drive North	Oceanside	92054	(760) 435-4000	Dump Station	2	33.209805, -117.394258
7	San Diego	San Diego Bay	Cabrillo Isle Marina (an Almar Marina)	1450 Harbor Island Drive	San Diego	92101	(619) 297-6222	Pumpout	1	32.727434, -117.200226
7	San Diego	San Diego Bay	Diego	J Street & Marina Way	Chula Vista	91910	(619) 400-4718	Pumpout	1	32.621452, -117.102821
7	San Diego	San Diego Bay	Chula Vista Marina	550 Marina Parkway	Chula Vista	91910	(619) 862-2835	Pumpout	1	32.623797, -117.10323
7	San Diego	San Diego Bay	Harbor Island West Marina	2040 Harbor Island Drive	San Diego	92101	(619) 291-6440	Pumpout	1	32.725080,-117.213491
7	San Diego	San Diego Bay	Port of San Diego	Laurel Street & Harbor Drive	San Diego	92101	(619) 400-4719	Pumpout	1	32.726941, -117.176065
7	San Diego	San Diego Bay	Loews Crown Isle Marina	4000 Coronado Bay Rd.	Coronado	92118	(619) 424-4000	Pumpout	1	32.630771, -117.133563
7	San Diego	San Diego Bay	Loews Crown Isle Marina	4000 Coronado Bay Rd.	Coronado	92118	(619) 424-4000	Dump Station	1	32.630702, -117.135619
7	San Diego	San Diego Bay	Pepper Park Launch Ramp	3299 Tidelands Avenue	National City	91950	(619) 400-4718	Pumpout	1	32.649567, -117.110158
7	San Diego	San Diego Bay	Shelter Island Harbor Police Dock	1401 Shelter Island Drive	San Diego	92101	(619) 686-6570	Pumpout	1	32.709296, -117.234956
7	San Diego	San Diego Bay	Shelter Island Harbor Police Dock	1401 Shelter Island Drive	San Diego	92101	(619) 686-6570	Pumpout	1	32.709419, -117.234923
7	San Diego	San Diego Bay	Shelter Island Public Dock	1401 Shelter Island Drive	San Diego	92101	(619) 686-6570	Pumpout	1	32.709513, -117.234484
7	San Diego	San Diego Bay	Shelter Island Public Dock	1401 Shelter Island Drive	San Diego	92101	(619) 686-6570	Pumpout	1	32.709592, -117.234559
7	San Diego	San Diego Bay	Sun Harbor Marina	5000 N. Harbor Drive Suite 200	San Diego	92106	(619) 222-1167	Pumpout	1	32.724718, -117.224525
7	San Diego	Bay	Glorietta Bay Marina	1715 Strand Way	Coronado	92118	(619) 435-5203	Pumpout	1	32.679484, -117.173962
7	San Diego	Bay	Glorietta Bay Marina	1715 Strand Way	Coronado	92118	(619) 435-5203	Pumpout	1	32.678845, -117.173021
7	San Diego	Bay	Glorietta Bay Marina	1715 Strand Way	Coronado	92118	(619) 435-5203	Pumpout	1	32.678707, -117.173154
7	San Diego	Bay	Glorietta Bay Marina	1715 Strand Way	Coronado	92118	(619) 435-5203	Dump Station	1	32.678833, -117.173040
7	Imperial	Wiest Lake	Wiest Lake Park	5351 Dietrich Rd.	Brawley	92227	(442) 265-1736	Dump Station	1	33.023135, -115.483173
7	Riverside	Diamond Valley Lake	Diamond Valley Marina	2615 Angler Ave	Hemet	92545	(951) 926-7201	Floating Restroom	1	33.671170, -117.010587
7	Riverside	Diamond Valley Lake	Diamond Valley Marina	2615 Angler Ave	Hemet	92545	(951) 926-7201	Floating Restroom	1	33.659318, -117.051140
7	Riverside	Diamond Valley Lake	Diamond Valley Marina	2615 Angler Ave	Hemet	92545	(951) 926-7201	Floating Restroom	1	33.689556, -117.031565
7	Riverside	Lake Elsinore	Lake Elsinore	Riverside Drive	Lake Elsinore	92536	(951) 674-3124	Floating Restroom	2	33.642838, -117.344894
7	San Bernardino	Big Bear Lake	Big Bear Lake	630 Bartlett Road	Big Bear Lake	92315	(909) 866-5796	Floating Restroom	2	34.247905, -116.985594
7	San Diego	El Capitan Lake	El Capitan Reservoir	16852 El Monte Rd.	Lakeside	92040	(619) 668-2014	Floating Restroom	1	32.884556, -116.791806
7	San Diego	Hodges Lake Reservoir	Lake Hodges Floating Restroom	Lake Hodges	Escondido	92101	(619) 668-2050	Floating Restroom	1	33.070056, -117.112000
7	San Diego	Lake Miramar	Lake Miramar Floating Restroom	Lake Miramar	San Diego	92101	(619) 668-2050	Floating Restroom	1	32.913083, -117.104611
7	San Diego	Lake Morena	Lake Morena County Park	2550 Lake Morena Dr.	Campo	91906	(619) 579-4101	Dump Station	1	32.685265, -116.521483
7	San Diego	Lower Otay Lake	Lower Otay Lake Floating Restroom	Lower Otay Lake	San Diego	92101	(619) 668-2050	Floating Restroom	1	32.622194, -116.927528
7	San Diego	Murray Reservoir	Murray Reservoir Floating Restroom	Lake Murray	San Diego	92101	(619) 668-2050	Floating Restroom	1	32.788333, -117.042417
7	San Diego	San Vicente Reservoir	Lake San Vicente Floating Restroom	Lake San Vicente	Lakeside	92040	(619) 668-2050	Floating Restroom	1	32.918056, -116.926250

Table 15: No Discharge Zones[8]

No Discharge Zones in the State of California
Avalon Bay Harbor
Channel Islands Harbor
Dana Point Harbor
Huntington Harbour
Mission Bay
Newport Bays
Oceanside Harbor
Richardson Bay
San Diego Bay (<30ft. deep at mean lower low water)
Sunset Bay Lake Tahoe

[8] United States Environmental Protection Agency, 2018

Table 16: Areas of special biological significance (ASBS)[9]

ASBS Number	Area	County	State Water Resources Control Board Region
1	Jughandle Cove	Mendocino	1
2	Del Mar Landing	Sonoma	1
3	Gerstle Cove	Sonoma	1
4	Bodega	Sonoma	1
5	Saunders Reef	Mendocino	1
6	Trinidad Head	Humboldt	1
7	King Range	Humboldt and Mendocino	1
8	Redwood National Park	Del Norte and Humboldt	1
9	James V. Fitzgerald	San Mateo	2
10	Farallon Islands	San Francisco	2
11	Duxbury Reef	Marin	2
12	Point Reyes Headlands	Marin	2
13	Double Point	Marin	2
14	Bird Rock	Marin	2
15	Año Nuevo	San Mateo	3
16	Point Lobos	Monterey	3
17	San Miguel, Santa Rosa, and Santa Cruz Islands	Santa Barbara	3
18	Julia Pfeiffer Burns	Monterey	3
19	Pacific Grove	Monterey	3
20	Salmon Creek Coast	Monterey	3
21	San Nicolas Island and Begg Rock	Ventura	4
22	Santa Barbara and Anacapa Islands	Santa Barbara and Ventura	4
23	San Clemente Island	Los Angeles	4
24	Laguna Point to Latigo Point	Ventura and Los Angeles	4
25	Northwest Santa Catalina Island	Los Angeles	4
26	Western Santa Catalina Island	Los Angeles	4
27	Farnsworth Bank Ecological Reserve	Los Angeles	4
28	Southeast Santa Catalina Island	Los Angeles	4
29	La Jolla	San Diego	9
30	Heisler Park	Orange	9
31	San Diego-Scripps	San Diego	9
32	Robert E. Badham	Orange	8
33	Irvine Coast	Orange	8 & 9
34	Carmel Bay	Monterey	3

[9] California State Water Resources Control Board, 2019

Table 17: Areas with access to commercial mobile pumpout companies

Area Served	Number of Mobile Companies
Alameda County	3
Catalina Island- Avalon Harbor	1- seasonally
Channel Islands Harbor	1
Contra Costa County	3
Dana Point Harbor	3
Huntington Harbour	6
King Harbor	1
Marin County	1
Marina del Rey	3
Mission Bay	3
Newport Harbor	4
Oceanside Harbor	3
Port of Long Beach, Los Alamitos	5
Port of Long Beach, Shoreline	4
Port of Los Angeles	3
Redwood City	1
Richardson Bay	1
San Diego Bay	4
San Francisco County	2
San Joaquin County (Antioch Bridge through Walnut Grove, Discovery Bay)	1
San Mateo County	2
Santa Cruz County	1
Sausalito	1
Solano County	2
Sonoma County	2
Tuolumne County (Lake Don Pedro Marina)	1
Ventura Harbor	1

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APPENDIX 1 - METHODOLOGY

Data Collection

Data collection was based on a boating facility database provided by DBW on July 31, 2018 that included 1,568 boating-related facilities. The facility list was compiled for DBW by California State University, Sacramento. For methodology used to compile the list see California Boating Facilities Needs Assessment 2020[10]. This Plan utilized data on boating facilities with in-water accommodations (i.e. slips and mooring buoys) and/or sewage resources. The total facility list was reduced by 578 facilities to 990 facilities, with non-relevant facilities removed.

An extensive effort was conducted to contact all boating facilities in the state that have sewage disposal resources or in-water accommodations for boats. Data was collected on infrastructure, i.e., the number of mooring buoys and wet slips and size distribution (less than 25 feet and 25 feet or longer), as opposed to the number of boats in a geographic area, which is highly variable. Data was also collected on the number, type, and location of existing sewage disposal systems available to boaters including pumpout stations, dump stations, in-slip pumpouts, and floating restrooms.

To determine the size at which a vessel is likely to have an installed toilet or port-a-potty onboard, research was conducted via personal correspondence with 13 different companies and organizations including six yacht brokers, four boating associations, two maintenance companies (boat yards), and one MSD manufacturer. Results indicated that vessels 25 feet or longer are more likely have an installed toilet onboard. This is consistent with the United States Department of the Interior Fish and Wildlife Service Pumpout Station and Dump Station Technical Guidelines[11]. Therefore, while collecting data, slip size distribution data was collected to determine how many slips are 25 feet or longer. For the purposes of this plan, it is assumed that slip size is equivalent to vessel size, however it is understood that slips are often occupied by vessels of various lengths.

Data Limitations

[10] California State Parks Division of Boating and Waterways, 2020.

[11] United States Department of the Interior Fish and Wildlife Service, 1994

Although every effort was made to collect accurate data, there were limitations in the data collection process. Surveyors collected data primarily from facility staff and through website research. Websites were occasionally outdated and staff sometimes provided rough estimates rather than exact numbers. To prevent inaccurate data, webpage information was confirmed over the phone and data was collected from the facility owner or manager whenever possible. In the event facilities were unreachable, data provided by DBW was utilized without verification or correction. This was determined to be the best course of action as to not skew the data. Satellite mapping was also used to visually verify data where possible.

Data Assessment

Data assessment consisted of reviewing the data for quality assurance; removing facilities that were out of business, do not have sewage resources, mooring buoys, or slips; and analyzing the data. The pumpout ratio was determined by calculating the total number of mooring buoys and slips 25 feet or longer that do not have access to in-slip or private pumpouts and dividing that by the total number of publicly accessible pumpouts. The dump station ratio was calculated by totaling the number of slips less than 25 feet that do not have access to a private sewage dump station, then dividing that by the total number of publicly accessible dump stations. One exception was made for Catalina Island in Los Angeles County. Due to the popularity of Catalina Island as a boating destination and the well-established maximum number of boats permitted to anchor in specific coves, anchorages were also included in the data analysis. For Catalina Island the pumpout ratio was calculated by totaling the number of mooring buoys, slips 25 feet or longer, and anchorages that do not have access to in-slip or private pumpouts, then dividing that by the total number of publicly accessible pumpouts.

All data was analyzed by geographic regions and subregions. California Department of Parks and Recreation recognizes seven regions, which are delineated by county lines (Figure 1). These were further divided into subregions. In Southern California, subregions correspond to individual coastal harbors and individual lakes. In Northern California, subregions correspond to individual counties due to waterways crossing several county lines. Sewage resources within a region can be widely dispersed or concentrated in a specific area. Because it is unrealistic to expect a boater to travel long distances to utilize a sewage resource (e.g. King Harbor and Marina del Rey in Region 6 are over 10 miles apart), data was analyzed by subregion as well as region.

The number of pumpouts and dump stations needed to reach the recommended ratios were calculated. In order to calculate the number of additional pumpouts needed, the current pumpout ratio was multiplied by the number of publicly accessible sewage pumpouts. This was then divided by the desired pumpout ratio, rounded up to the nearest whole number (regardless of the decimal value) and then the number of publicly accessible sewage pumpouts was subtracted from it. The same methodology was followed to determine the number of dump stations needed using the current dump station ratio, number of publicly accessible dump stations, and desired dump station ratio. If no dump stations were available, the total number of slips < 25' was divided by the desired dump station ratio and rounded up to the nearest whole number (regardless of the decimal value) to determine the number of dump stations needed.

For example (San Mateo County in Region 4):

339 (current pumpout ratio) x 7 (publicly accessible pumpouts) = 2,373 (slips that need access to a publicly accessible pumpout)

2,373 (slips) / 250 (desired pumpout ratio) = 9.4 round up to 10 pumpouts needed in the subregion

10 (pumpouts needed in the subregion) - 7 (publicly accessible pumpouts) = 3 additional pumpouts needed in the subregion

APPENDIX 2 - RATIO JUSTIFICATION

The state of California has determined the best method to ensure boaters have the sewage resources needed to properly dispose of waste and prevent pollution is to develop a pumpout ratio as well as a dump station ratio that meets boater needs. Previously the ratio was one pumpout/dump station for every 300 boats with Type III MSDs. With the new ratios presented in this plan, DBW will know where to install a pumpout versus a sewage dump station. Additionally, the old ratio refers to boats with Type III MSDs, although this is important information it is not attainable, as it is not recorded by the California Department of Motor Vehicles as part of vessel registration nor does marina or yacht club staff commonly record it. However, vessel length can be used as an indication of a vessel's likelihood to have a Type III MSD. DBW attains vessel length data through California Department of Motor Vehicles vessel registration data. DBW can also attain slip length data through infrastructure development permit applications or marina or yacht club staff. Slip length can be assumed

equivalent to vessel length for the purposes of determining where to install sewage resources.

Pumpout Ratio: Provide a minimum of one pumpout for every 250 boats with a length of 25 feet or longer.

The need to develop a new pumpout ratio was determined in part due to feedback from the boating community. For example, in Marina del Rey the current pumpout ratio is 306 boats per pumpout; however, boaters in Marina del Rey have voiced complaints that there are not enough pumpouts to accommodate the boating community, especially when a pumpout is non-operational for any period of time. Therefore, a new pumpout ratio was determined.

Research indicates boats 25 feet or longer are more likely to have an installed toilet onboard (Appendix 1) and require a sewage pumpout station.

On average it takes approximately 30 minutes to pumpout a boat including time to tie up, pumpout, rinse out holding tank, pumpout again, start boat, untie, and depart. It is assumed throughout this process that the boat is occupying the space needed for any other boat to pumpout. The actual pumpout time may be minimal, however the pumpout itself cannot be used to empty another boat's holding tank during this time. This assumes the pumpout is located on a dock that allows for only one boat to be tied up at a time, which is common at many pumpout facilities in California.

On average there are 9.5 hours[12] of sunlight in California per day. Assuming boats will be pumped out during daylight hours, one pumpout unit can accommodate up to 19 boats per day. In addition, based on automated pumpout monitoring systems, pumpout units are most commonly used four days per week. This brings the number of boats to 76 per pumpout unit per week.

However, boats need pumpouts at different frequencies depending on how often the marine sanitation device is used. Some boats need a pumpout as often as twice a week while others need a pumpout once a month or less. Overall, it was determined based on experience and feedback from mobile pumpout companies that on average boats need a pumpout once every 3 weeks. Given this timeframe, a pumpout can accommodate 228 boats.

[12] ClimaTemps.com, 2014

30 minutes to pumpout a boat / 9.5 hours (570 minutes) of sunlight per day = 19 boats per pumpout per day

19 boats per pumpout per day X 4 days pumpouts most commonly used per week (Friday, Saturday, Sunday, Monday) = 76 boats per pumpout per week.

76 boats per pumpout per week X 3 weeks (average frequency boats need a pumpout) = 228 boats per pumpout

From the above calculation in addition to experience through education, outreach, and monitoring efforts, DBW establishes a new statewide target of one pumpout station for every 250 boats 25 feet in length or longer. The calculation to determine 228 boats per pumpout was determined based on information collected (i.e. pumpouts most commonly used four days per week and average frequency boats need a pumpout), not actual data collected from a study or survey. Therefore, this number was rounded up to 250 so as not to provide specificity that would be misleading.

DBW also recommends one pumpout in subregions where there are 50 or more boats 25 feet or longer, in order to accommodate the sewage needs of vessels while simultaneously not providing resources in areas where they will be underutilized. This recommendation was determined in part by reviewing the data (Tables 7-13) to identify instances of slips 25 feet or longer and mooring buoys without access to any sewage pumpouts and in part from the knowledge that boat waste is more concentrated than municipal waste in terms of pollutants such as bacteria, nitrogen and phosphorus.

Dump Station Ratio: Provide a minimum of one dump station for every 500 boats less than 25 feet.

Port-a-potties and dump stations are much different than installed toilets and pumpouts. Therefore, they require a different type of analysis to determine a dump station ratio. A port-a-potty holding tank physically gets removed from a boat and carried to a facility for proper disposal. The boat may be docked in its slip while the boater properly disposes of holding tank waste. Dump stations are the easiest way to properly dispose of port-a-potty waste due to the equipment and available hose for rinsing the waste tank. Additionally, a landside restroom toilet can be used; however, some facilities discourage or prohibit the use of restrooms for disposal of port-a-potty waste.

Since dump stations are the most convenient facility for proper disposal of port-a-potty waste DBW establishes a dump station ratio of one dump station for every 500 boats less than 25 feet in length. Port-a-potties are more likely found on smaller boats less than 25 feet; thus the dump station ratio takes into consideration boats of this size. The new ratio was developed in part by reviewing the data (Tables 7-13) to encourage boating facilities that can accommodate boats less than 25 feet in length to provide this convenient sewage disposal resource.

Additionally, DBW recommends one dump station in subregions where there are 50 or more slips 25 feet or less. Providing this resource for areas where smaller boats are concentrated and commonly used ensures the boating community has the proper resources they need to dispose of waste while not providing resources in areas where they will be underutilized. For example, based on data collected for the current state of the sewage dump station network, Merced County was shown to have 6 slips less than 25 feet; due to the very limited number of slips, it is not suggested that this county install a dump station unless data on boat usage is obtained and can be used to justify the installation of a dump station. This recommendation was determined in part by reviewing the data (Tables 7-13) to identify instances of slips less than 25 feet without access to a sewage dump station and in part from the knowledge that boat waste is more concentrated than municipal waste in terms of pollutants such as bacteria, nitrogen, and phosphorus. DBW may also consider installing dump stations at launch ramps and high trailerable boat usage areas. However, data on launch ramps and boat usage was not considered as part of this plan due to capacity limitations.

The dump station ratio is higher than the pumpout ratio due to the limiting factor of dock space not being an issue, and although boats less than 25 feet are more likely to have a port-a-potty than an installed toilet, they are also more likely to have no MSD.

Additionally, this new dump station ratio can be further justified with the following calculation. It is estimated to take 10 minutes to use a sewage dump station. On average there are 9.5 hours[13] of sunlight in California per day. Assuming the dump station will be utilized during daylight hours, one dump

[13] ClimaTemps.com, 2014

station can accommodate up to 57 boats per day. Assuming dump stations are used on average 3 days per week, one dump station can accommodate 171 boats per week. Assuming the average frequency a boat needs to utilize a dump station is once every three weeks, a dump station can be utilized by 513 boats.

10 minutes (to use a dump station) per boat / 9.5 hours (570 minutes) of sunlight per day = 57 boats per dump station per day

57 boats per dump station per day X 3 days per week (assumed average number of days used per week) = 171 boats per dump station per week.

171 boats per dump station per week X 3 weeks (assumed average frequency boats need a dump station) = 513 boats per dump station

From the above calculation in addition to experience through education, outreach, and monitoring efforts, DBW establishes a new statewide target of one dump station for every 500 boats less than 25 feet in length. The calculation to determine 513 boats per dump station was determined based on experience and anecdotal information collected from the boating community (i.e. dump stations most commonly used 3 days per week and average frequency boats need a dump station), not actual data collected from a study or survey. Therefore, this number was rounded to 500 so as not to provide specificity that would be misleading.