

# **LAKE BERRYESSA BOATER OUTREACH SUMMER 2018 PROGRAM**



**Report prepared by:  
Solano Resource Conservation District  
2018 Lake Berryessa Boater Outreach Interns**

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## Acknowledgement of Funders & Partners



**Funding Agencies:** Solano County Water Agency, Solano County, Napa County, Cities of Benicia, Vallejo, Fairfield, Suisun City, Rio Vista and Vacaville

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## INTRODUCTION

The Lake Berryessa Boater Outreach (LBBO) program is managed by the Solano Resource Conservation District and focuses on boater education at Lake Berryessa (LB). The reservoir serves as a drinking water source for approximately 500,000 people in Solano County, as irrigation for agriculture, and use for local businesses such as Jelly Belly and Anheuser-Busch. This report will cover the accomplishments and scope of the program for the 2018 season, which began in mid-May and concluded in mid-September.

A team of three LBBO interns conducted one-on-one educational surveys with boaters and recreational users at LB every weekend, covering topics such as hazardous waste disposal and lake tips and precautions to help keep the water clean. Boater surveys were conducted primarily at the three busiest launch concessions: Markley Cove, Steele Canyon and Capell Cove. Recreator surveys were mostly conducted at the busiest recreational site, Oak Shores. Data collected from the surveys were managed by the interns and digested into weekly reports for the Lake Berryessa Watershed Partnership. LBBO interns also assisted in running community clean up events such as World Environment Day and Coastal Cleanup Day.



*Image 1: Summer 2018 Lake Berryessa Boater Outreach Interns  
Asha Pluton, Chris Ronco, and Mathew Jian*

## BOATER EDUCATIONAL OUTREACH

The goal was to reach over 700 surveys and educate boaters on clean boating practices. Interns conducted one-on-one surveys with boaters, motivated them to install oil absorbent pillows and taught them how to dispose of used pillows, and educated boaters on the importance of Lake Berryessa as a drinking water source.





*Image 2: Boater receiving a flag for bilge pillow installation*

## **Boater Kits and Premiums**

After a boater completed a survey they would receive a free “Clean and Green” boating kit. Boating kits included fueling bibs to eliminate spilled gasoline while refueling, a West Marine coupon for \$15 dollars and an oil absorbent pillow to install in their boat’s bilge compartment to prevent oil and hazardous contaminants from leaking into the lake. In addition, those who were fishing received fishing line containers, to prevent old lines from ending up in the water. Useful information was also included in the kits including a map of Lake Berryessa, booklets about California boating and environmental laws, and information explaining clean boating practices.

If boaters took time to install an oil absorbent pillow on the spot, they would receive a premium gift. They could choose from a Lake Berryessa T-shirt, a metal canteen or an orange ski flag. This year, the most popular premium gift was the shirt, with 51% of installers choosing it as their premium gift.



*Image 3: 2018 boater kit contents and the premiums*

## **Boater Survey Questions and Responses**

Each boater surveyed was asked for their zip code and their city of residence. Figure 1 shows the distribution of boaters surveyed who came from Solano County and Napa County.

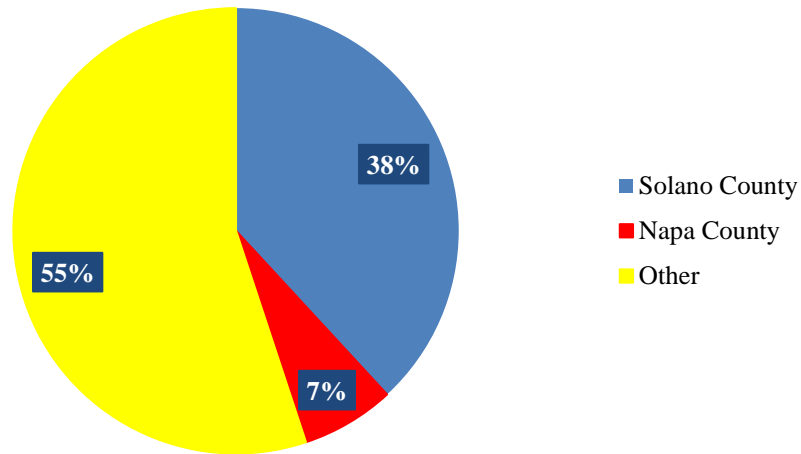


Figure 1: Summer 2018 Lake Berryessa boaters by county of residence

Of the Solano County boaters surveyed, most of the boaters came from Vacaville (47% of Solano County boaters surveyed), with Fairfield in second (25%) and Dixon in third (12%), as shown in Figure 2.

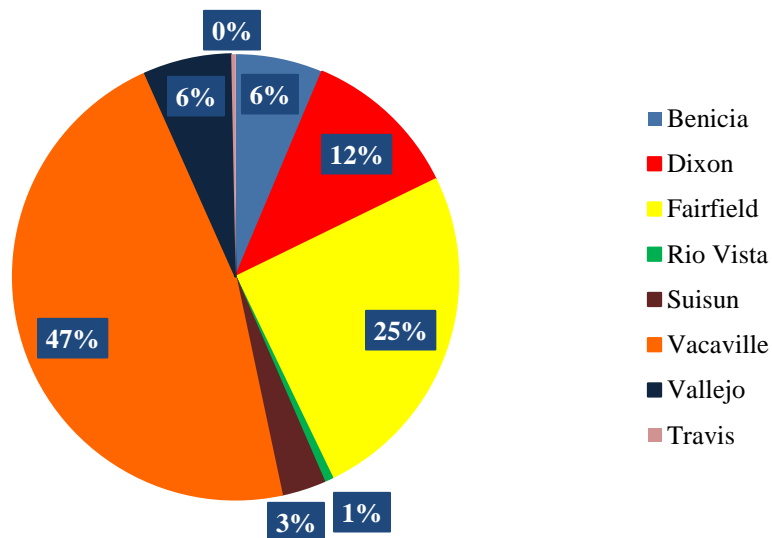


Figure 2: Distribution of boaters surveyed by cities in Solano County

Of the Napa County boaters surveyed, most of the boaters came from Napa (89% of Napa County boaters surveyed), with Angwin in second (6%) and American Canyon in third (5%), as shown in Figure 3.

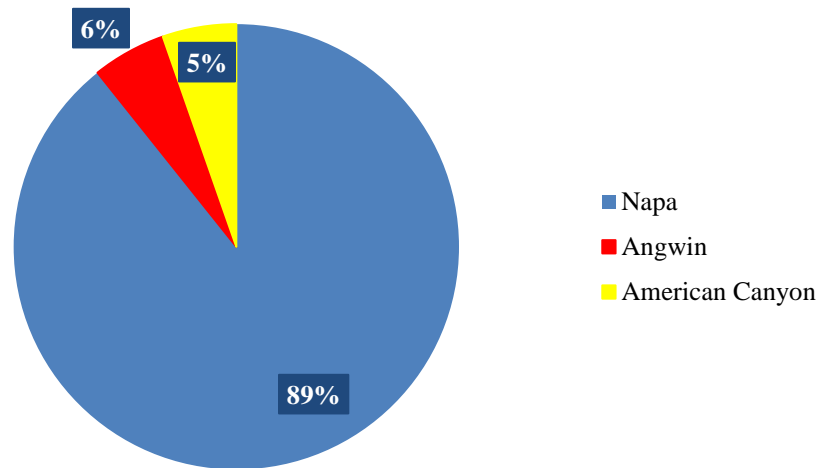


Figure 3: Distribution of boaters surveyed by cities in Napa County

After learning where boaters were coming from, questions were then asked in order to collect insight on how well Lake Berryessa boaters understand various clean boating practices, as well as how Lake Berryessa is used as a drinking water source for Solano County Residents.

This year, 75% of boaters responded “yes” when asked if they think Lake Berryessa is a drinking water source, compared to 77% from the previous year. The overall trend seems to be that at least 70% of boaters in any given year know that Lake Berryessa is a drinking water source, as shown in Figure 4.

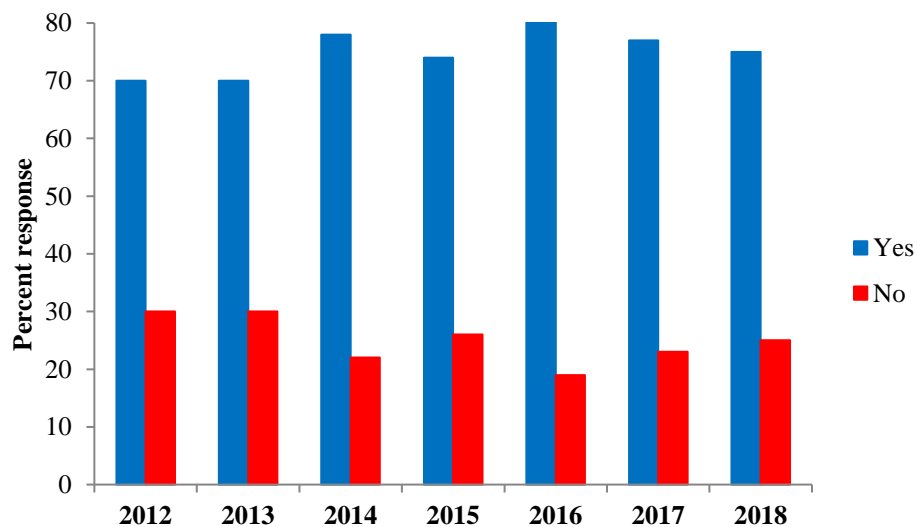
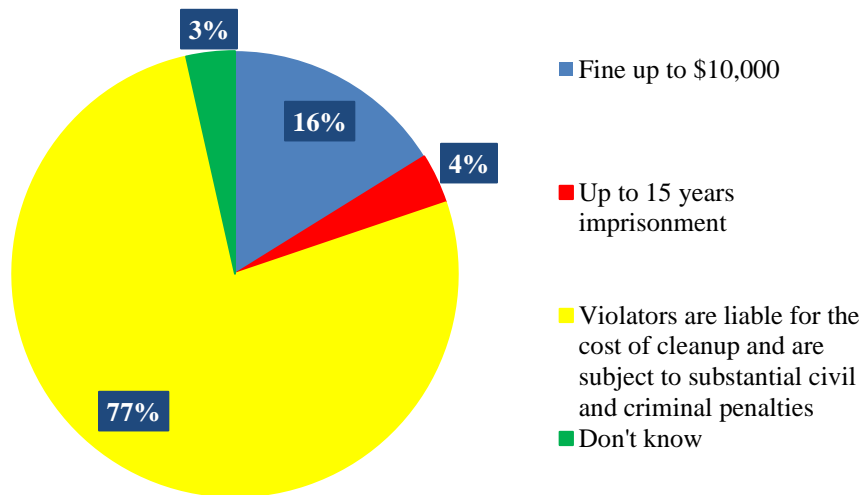


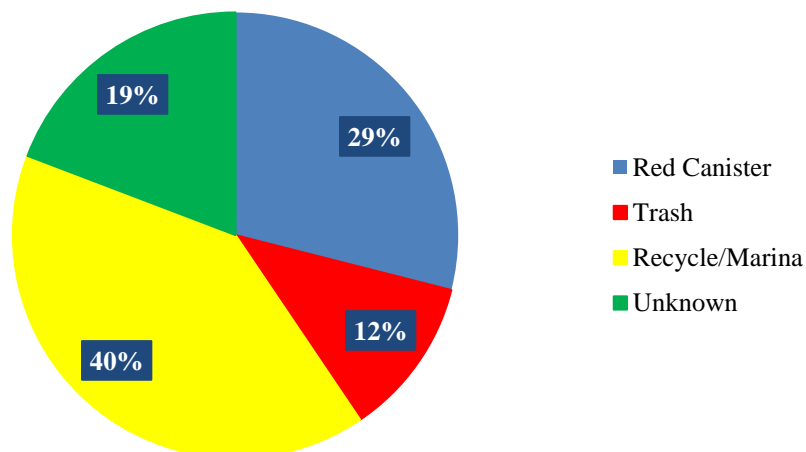
Figure 4: Percentage of boaters surveyed who answered “yes” when asked if they think Lake Berryessa is a drinking water source for the last seven years of the LBBO program

A question the boaters were asked was what they thought might happen to those who discharge fuel, oil, oily waste, and hazardous substances into or upon navigable waters of the United States. Most of the boaters responded with the correct answer (77%), that violators are liable for the cost of cleanup and are subject to substantial civil and criminal penalties.



*Figure 5: Responses of boaters when asked what they thought might happen to those who discharge fuel, oil, oily waste, and hazardous substances into or upon navigable waters of the United States*

After asking boaters about questions dealing with clean boating practices, the boaters were asked whether they have used oil absorbent pillows in their bilge compartments before, with 40% of boaters surveyed having used them before. Of the boaters who have used oil absorbent pillows before, a clear majority have disposed of them properly either at an oil recycling center or marina, or in the red canisters found at all launch ramps at Lake Berryessa, as shown in Figure 6.



*Figure 6: Distribution of how boaters surveyed who have used oil absorbent pillows have disposed of them*



*Image 4: Boater from Suisun City taking an absorbent pillow*



*Image 5: Intern taking a used oil absorbent pillow from a boater*

## RECREATOR EDUCATIONAL OUTREACH

Interns conducted day use surveys at Oak Shores to educate the non-boating public. Accompanying the interns was “Bilgee” a giant oil absorbent pillow who is the protector of clean waterways and a real-life super hero. Being large and over the top, Bilgee attracted the eye of boaters and day users alike. The day use survey enabled interns to interact with the non-boating public about hazardous waste disposal and how to keep the water clean. This year, interns conducted 107 recreator surveys and educated 753 people.

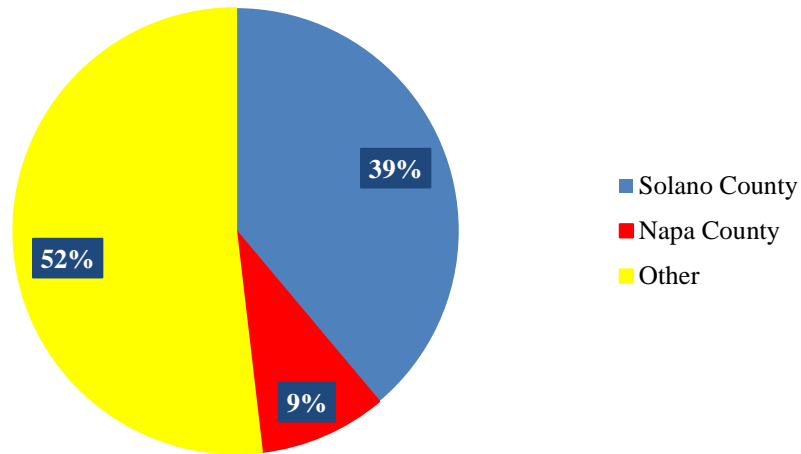


*Image 4 & 5: Bilgee at Oak Shores interacting with lake visitors*

## Recreator Survey Questions and Responses

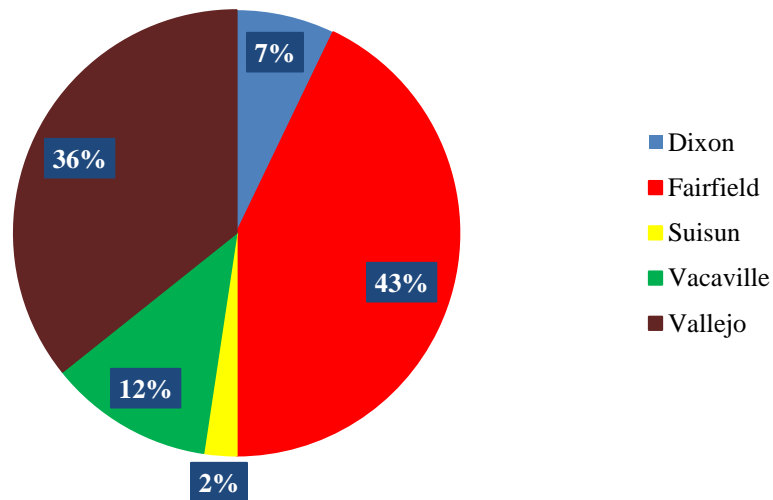
After Bilgee was introduced to each of the lake visitors, they were asked for their zip code and their city of residence. Figure 7 shows the distribution of recreators surveyed who came from Solano County and Napa County.





*Figure 7: Distribution of recreators surveyed by county of residence*

Of the Solano County boaters surveyed, most of the boaters came from Fairfield (43% of Solano County boaters surveyed), with Vallejo in second (36%) and Vacaville in third (12%), as shown in Figure 8.



*Figure 8: Distribution of recreators surveyed by cities in Solano County*

Of the Napa County boaters surveyed, most of the boaters came from Napa (80% of Napa County boaters surveyed), and American Canyon in second (20%), as shown in Figure 9.

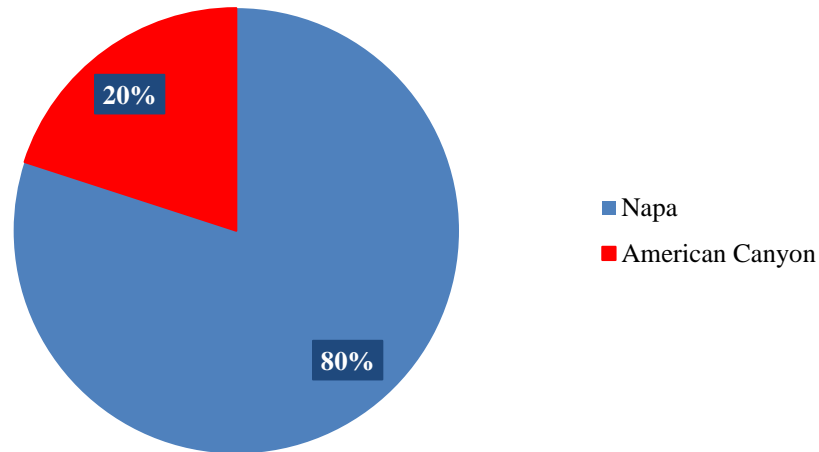


Figure 9: Distribution of recreators surveyed by cities in Napa County

The next question asked recreators if they thought Lake Berryessa is a drinking water source. This year, 39% of recreators responded “yes”, compared to 49% last year. Figure 10 summarizes the response from recreators for the past seven years.

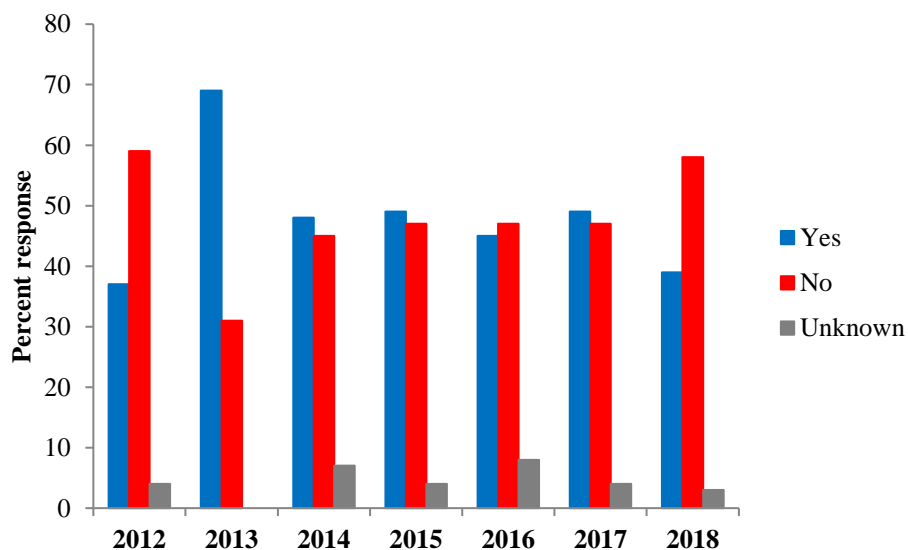


Figure 10: Percentage of recreators surveyed who answered “yes” when asked if they think Lake Berryessa is a drinking water source for the last seven years of the LBBO program

Recreators were also asked to suggest ways to help keep Lake Berryessa clean. Most of the recreators suggested not littering (38%), with the second most being not using the lake as a restroom (20%). Figure 11 shows the summary of the recreator responses.

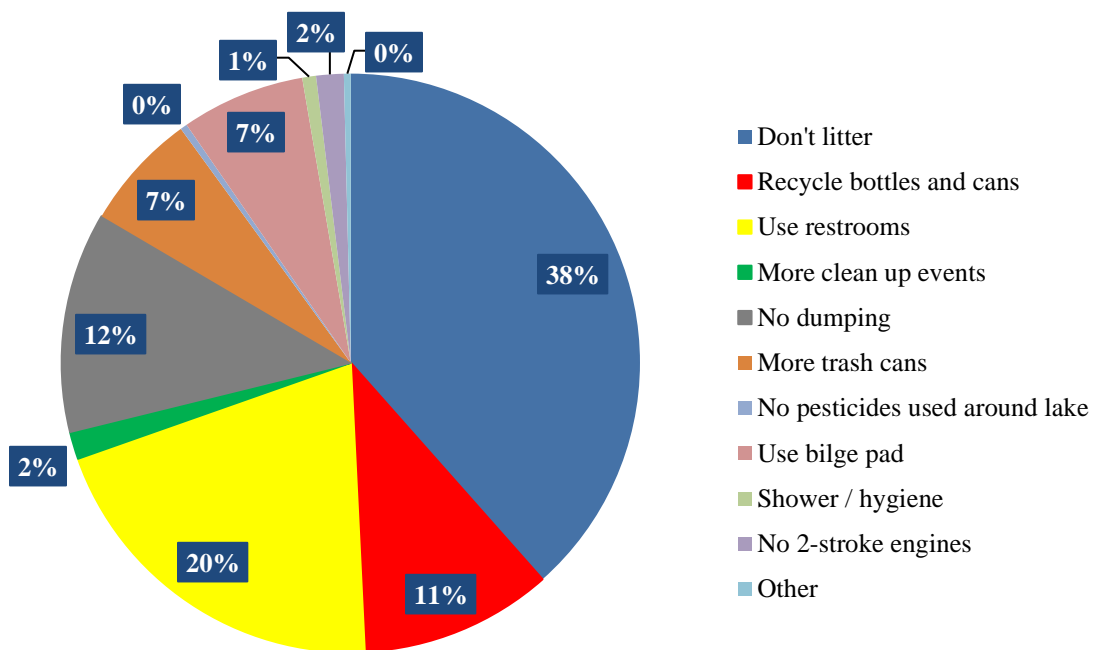


Figure 11: Responses of recreators when asked to suggest ways to help keep Lake Berryessa clean

Solano county recreators were asked additional questions including how they would best describe the natural areas of Solano County. Interns received a wide range of responses from “Open Spaces” to “Farmlands”. Every Solano resident strongly agreed that a healthy natural environment was important to them. When asked about how they mostly receive their news, recreators gave mixed responses including Facebook, newspaper and word of mouth.

## COMMUNITY CLEAN UP EVENTS

Interns helped coordinate two community clean up days. World Environment Day took place on June 3<sup>rd</sup> this year. The interns helped with the registration table and the weighing of the trash. 96 volunteers signed up in total and 200 lbs. of garbage and 120 lbs. of recyclables were removed from the shores of LB.



Image 8: World Environment Day 2018 at Lake Berryessa

Coastal Cleanup Day took place on September 15 this year. Interns spent the weeks leading up to the event putting up flyers and posters at the concessions. A record number of volunteers (108) participated. LBBO interns registered volunteers at all three sites. 27 volunteers signed in at Steele, 55 at Pope and 26 at Markley. A total to 865 pounds (596 pounds of trash and 269 pounds of recyclables) were removed from 16 miles of LB coastline. 13 water vessels assisted on the mission.



*Image 9: Coastal Cleanup Day 2018 at Lake Berryessa*

## CONCLUSION

The 2018 Lake Berryessa Boater Outreach program achieved its goal. Interns educated 1,845 people and conducted 825 boater surveys. LBBO interns motivated boaters to install a total of 282 oil absorbents, each of which can absorb up to a quart of oil. The work completed this summer has further advanced the education of boaters and recreators on oil absorbents, where to recycle them and provided clean boating practices to keep the lake as one of the cleanest drinking water sources in California.

	2012	2013	2014	2015	2016	2017	2018
# of Interns	2	6	6	14	12	16	<b>3</b>
Total Boater Surveys	722	1,568	1,670	1,195	1,210	1,115	<b>825</b>
Total Recreator Surveys	109	325	300	392	265	224	<b>107</b>
Oil Absorbents Distributed	1,554	2,214	2,191	1,848	2,310	606	<b>1,082</b>
Install Rate*	45%	51%	50%	57%	50%	41%	<b>48%</b>

*Table 1: Outreach program achievements by year. \*Install rates based on inboard/outboard boats*





*Image 10: Bilgee and Interns*



*Image 11: Boaters at Steele installing oil absorbent*



*Image 12: Vacaville boater receiving boater kit*



*Image 13: Fairfield boater removing used oil absorbent*



*Image 14: Bilgee educating children from Vallejo*