



Appendix B

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# Statewide and Regional Random Surveys



## B. Statewide and Regional Random Surveys

The statewide and regional surveys were telephone surveys of randomly selected California households. These telephone surveys were conducted by Quantum Market Research (QMR), of Oakland, California. The surveys were performed between November 2006 and April 2007.

This Appendix includes the following statewide and regional random survey information:

- A description of the statewide and regional survey approaches
- A presentation of the statewide and regional survey analyses
- A paper version of the telephone questionnaire (the actual survey was implemented using a Computer Aided Telephone Interview system), **Exhibit B.1**
- A seven-page exhibit, **Exhibit B.2**, that provides calculations for incidence rates, number of households owning boats, participants, and number of boats by boat type
- A one-page exhibit, **Exhibit B.3**, that provides summary results of fourteen survey questions.

### Statewide and Regional Random Survey Approaches

The statewide and regional random telephone surveys of 474 households that own one or more non-motorized boats utilized a “listed household” sample frame. As described below, the listed household approach has many benefits as compared to random digit dialing. The following description is based on materials provided by GENESYS Sampling Systems, the company that provided the sample data to Quantum Market Research (QMR). QMR performed the random telephone surveys.

#### Listed Household Sample Frames

In the market research industry, the term “listed household” usually refers to a sample frame comprised of **residential** telephone numbers derived from the “white pages” in the telephone directory. There are two companies nationally that compile white page directories, Donnelley Marketing and InfoBase. Essentially all white page-based consumer telephone lists originally come from one of these two sources. GENESYS purchased listed household telephone numbers from Donnelley Marketing.

The original white pages data includes name (as listed in the telephone book), telephone number, address (where listed), and a telephone book identification code (identifying the book the data originated from). In addition, the companies assign a geographic code to each record. This is straightforward in those cases where the address is listed, as the exact zip code can be identified. However, for listings without

an address, there is standard protocol that uses exact and modeled data to determine the zip codes for these listings. Geographic data at the county level and above is very accurate using this methodology, with accuracy rates above 80 percent. Geographic data at more refined levels, such as zip codes or census tracts, is less accurate. For the regional component of the survey, we utilized data at the county level.

Beyond this point, all white page-based consumer telephone lists are not the same. Individual companies purchase the original white page numbers from Donnelly or InfoBase, and then further enhance the data in various ways, such as merging the data with automobile registrations; drivers license data; voter registrations; birth records; survey respondents; coupon redemption information; direct mail donors; mail order buyers; books and merchandise purchases; and proprietary data sources. Thus, the basic white page information can be enhanced to include both geographic and demographic data about a household, with varying levels of accuracy. For example, household income data associated with a particular household listing is typically modeled, and thus may be only 70 percent to 80 percent accurate. A final set of listed household data will include the basic telephone contact information, as well as geographic and demographic data.

An important component of listed household samples is maintaining the list. Each year, the compilation process involves a record-by-record review of each new telephone directory versus the existing information in the database. This process takes from two to four months. Furthermore, the sheer size of a listed household database requires ongoing maintenance in order to ensure that each record still represents an active household, as well as to verify the continuing accuracy of the record's information. On a monthly basis, the entire list is compared to, and corrected by, the National Change of Address file. In addition, maintenance includes compilation of new directories, aging of

respondents, unduplicating of telephone numbers, and remodeling of record information based on new Census data. An updated listed telephone number sample frame should return 80 percent to 90 percent households.

### Benefits of Listed Household Sample Frames

Listed household data can significantly reduce inefficiencies in sampling. A listed household sample frame eliminates a large number of invalid telephone numbers such as fax lines, businesses, disconnected numbers, and elevator telephones. This is in contrast to a sample frame of randomly generated telephone numbers (random digit dialing, RDD). Invalid telephone numbers can make up a significant component of the total numbers in a RDD sample. Calling a large number of invalid numbers adds greatly to the time and expense of a random telephone survey.

By utilizing a listed household sample frame, we eliminated the first source of invalid numbers at the front end, and thus reduced the total number of calls necessary to obtain 474 completed surveys. Listed household samples are particularly beneficial in a survey, such as the statewide and regional random surveys of non-motorized boating, in which the incidence rate is very low. For the statewide and regional random surveys, the incidence rate refers to the percent of respondents (households) that actually own a non-motorized boat. For surveys with a low incidence rate, it takes a large number of telephone calls to obtain the required number of completed surveys.

At the start of the survey, we estimated that approximately twelve (12) percent of California households would own a non-motorized boat. Based on this assumption, we would need to contact and actually query approximately 4,000 households whether or not they owned a non-

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motorized boat. Actually getting in contact with 4,000 households required dialing significantly more telephone numbers to account for answering machines, hang ups, non-answers, etc. The listed household list assures, with over 80 percent accuracy, that at least the number called is a residential household.

To conduct the statewide random survey, we initially purchased 30,000 listed household numbers. As it became clear that the incidence rate was much lower than the original assumption of twelve (12) percent, we purchased an additional 10,000 listed household numbers. Approximately 25,000 numbers were selected randomly statewide, and approximately 15,000 numbers were selected randomly amongst the ten regions. Each listed household in the sample frame was contacted up to six (6) times. This high rate of follow-up helped ensure that each household contacted was truly random.

The actual number of households contacted, and willing to answer the screening question (to determine if they owned a non-motorized boat) was 5,451. These 5,451 households represent 13.6 percent of the total sample frame. The remaining 34,549 telephone numbers either refused to answer the survey, were answering machines, were disconnected numbers, were businesses, did not pick up the telephone, or did not speak English.

### Telephone Interview Approach

The statewide random survey was conducted by telephone, using a Computer Aided Telephone Interview (CATI) system. After we developed a paper-version of the survey, QMR converted the survey to the CATI system, with automatic links to questions based on “yes” or “no” answers. (For example, skipping questions on the second or third boat type if the respondent has only one boat type.) After the surveyor identified whether the respondent had non-motorized boat(s), they ensured that they

were speaking to the person most qualified to answer non-motorized boating questions. If necessary, the surveyor set up a time to call back and speak to the non-motorized boater in the household.

QMR programmed the CATI system to incorporate previous answers into future questions. For example, if the respondent said they had an inflatable canoe, the surveyor would read later questions as: “How often do you use your inflatable canoe?” rather than, “How often do you use this non-motorized boat type?”

Some respondents had multiple types of non-motorized boats and used multiple waterways. Our approach was to first identify *all* of the non-motorized boats. For those respondents with multiple types of boats, we then identified the most-used boat type (whitewater kayak, inflatable canoe, etc.). We then asked questions about how often that boat type was used, two waterways where it was used, and facility needs for those two waterways. Surveyors gathered information on two waterways that the boater used, and one waterway that the boater avoided using but would have liked to use.<sup>a</sup> Following the waterway and facility questions, we asked a series of general, expenditure, and demographic questions.

We included an open-ended question for comments or suggestions at the survey end. This open-ended question provided respondents with a chance to voice their own opinions. We synthesized much of this qualitative survey input into the facility needs analysis (Section 3).

The telephone survey took approximately 15 minutes. The survey was significantly shorter for a respondent that had not used their boat within the last five years, and longer for an active non-motorized boater that wanted to discuss the topic.

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<sup>a</sup> Due to survey time constraints, we were limited to asking respondents about only their two most used waterways. Thus, usage data for specific waterways were conservative. As a result, we provided relative ranking of waterways in Section 3, combining data from random and active-user surveys, commercial surveys, and interest group meetings.

### Quality Control Procedures

The statewide random survey included a high degree of training and quality control steps to ensure validity of the survey. Prior to developing the survey, NewPoint Group, in consultation with DBW, spent a significant amount of time developing the definition of non-motorized boats, for both the survey and the project overall. This definition of non-motorized boats was carefully, and repeatedly, communicated to QMR supervisors and surveyors.

NewPoint Group prepared a picture glossary of included non-motorized boats, as well as “boats” that were excluded from the survey. The picture glossary included several pages and pictures of each category of non-motorized boat, and one page with pictures of excluded items, such as toy rafts.

To ensure that surveyors were knowledgeable about non-motorized boating in general, and our definitions of non-motorized boats in particular, NewPoint Group participated in a three-hour surveyor training session at QMR offices in Oakland. During this training we provided a boat-by-boat description of included and excluded vessels, using the picture glossary as a guide. In addition to attending the training and being provided an on-screen presentation on boat definitions, each surveyor was given a hard copy of the picture glossary. Furthermore, the training session included a question-by-question reading and discussion of the survey.

There was a substantial degree of quality control during the telephone survey itself to ensure that surveyors were asking questions correctly, and clarifying responses with respondents when necessary. During initial survey interviews, NewPoint Group anonymously listened to selected non-motorized boat-owner surveys to ensure that the surveyors were correctly interpreting survey questions and responses.

NewPoint Group provided constructive feedback to QMR on this early project juncture to clarify boat types that should be included and excluded in the survey. One or more QMR supervisors was on-site during all telephone interviews, and listened to the surveys, both in-person, and through the QMR computer aided telephone interview system. In addition, because the incidence rate of non-motorized boat ownership was so low (and thus there were very few completed surveys on any given night), QMR supervisors were able to closely monitor surveys as they were in progress. As a final quality control step, NewPoint Group reviewed survey responses at several interim points during the survey, and after the survey was completed. During these interim reviews we identified and removed survey responses that were not for non-motorized boats, such as one respondent that identified their second type of non-motorized boat as a fisherman float tube.

Finally, in regards to the survey methodology, it is worth noting that if a respondent was willing to spend fifteen or more minutes on the telephone answering questions about how many non-motorized boats they own, where they use them, why they use them, and how much they spend on boating, they likely owned a “real” non-motorized boat, and not a “toy”. We believe the statewide random survey responses of non-motorized boaters support this perception.

### Statewide and Regional Survey Components

The survey included a statewide random component and a regional random component. Because each region was a unique subpopulation of the State, the 351 completed statewide random surveys were analyzed at both the statewide and regional level. QMR completed an additional 123 random regional surveys in order to achieve a minimum of 25 completed surveys per region.

We utilized this blended state and regional approach to maximize the statistical accuracy of information obtained at the statewide level, while providing reasonable coverage at the regional level. This was particularly important, because no such survey of non-motorized boat owners had been previously conducted in California, or elsewhere in the United States.

This research study had little prior information upon which to predict the number of households that own non-motorized boats. The statewide random telephone survey of 351 non-motorized boat owning households provided the basis for estimating the statewide incidence rate (percent of households owning non-motorized boats), the number of non-motorized boats owned by individuals, and the number of non-motorized boating participants in non-motorized boat owning households. Because this statewide data was more accurate than the regional data, we adjusted the regional totals to match the statewide totals.

Statistically, we could count each completed statewide random survey as a valid random regional survey.<sup>b</sup> That is, we could double-count each survey (once for the State and once for the region) without losing any statistical power. In fact, this statistical characteristic of subpopulations, enhanced the statistical power of the statewide survey.

We analyzed the data, including incidence rates, and developed population estimates at the statewide level, and subpopulation estimates at the regional level.

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<sup>b</sup> Pages 62 to 63 in Cochran's *Sampling Techniques* (John Wiley and Sons, 1977) discusses estimating proportions and totals over subpopulations. In our study, each region was a subpopulation of the overall statewide population. With only minor adjustments to the equations used for the population estimates, one could calculate estimates of mean, variance, and standard error for each subpopulation.

## Confidence Intervals of Statewide and Regional Incidence Rates

The incidence rate of non-motorized boat ownership was the key calculation resulting from the statewide and regional random telephone survey of non-motorized boating household. The incidence rate is the percent of households that own one, or more, non-motorized boats. Once an interviewer made telephone contact with a household, they asked a screening question to determine whether anyone in the household owned a non-motorized boat. If the household did own a non-motorized boat, the interviewer continued with the full survey. If the household did not own a non-motorized boat, the interview was terminated.

The incidence rate of non-motorized boat ownership was equal to:

$$\frac{\text{Number of households owning a non-motorized boat (NMB)}}{\text{Number of households owning a NMB} + \text{Number of households not owning a NMB}}$$

For the incidence rates calculation, the sample size,  $n$ , was equal to the denominator. The denominator was the number of households owning, and not owning, non-motorized boats. In determining the incidence rate, the sample size was not the number of respondents owning a boat (the number of completed surveys), but the number of households that were contacted and answered the screening question. This was because the incidence rate calculation requires us to know the number of "do not own a non-motorized boat" (or did not qualify) responses, in addition to the number of "do own a non-motorized boat" responses. This large sample size,  $n$ , results in an improvement of statistical accuracy for the incidence rate calculations, as compared to results of survey questions, such as days of boating per year, that are based only on the number of completed surveys of households owning a non-motorized boat.

**Table B.1**  
**Statewide and Regional Random Telephone Survey Incidence Rates**  
**and Margin of Errors at a 95 Percent Confidence Interval (2006)**

Survey Area	Completed Surveys	Total Survey Contacts (n)	Incidence Rate	Standard Deviation of Incidence Rate	Relative Margin of Error at a 95 percent Confidence Interval
Statewide Random Survey	351	4,475	7.84%	0.40%	10.05%
Regional Random Survey					
1. North Coast	46	239	19.25%	2.55%	25.97%
2. San Francisco	67	1,021	6.56%	0.77%	23.15%
3. Central Coast	33	238	13.87%	2.24%	31.66%
4. South Coast	67	1,375	4.87%	0.58%	23.36%
5. San Diego	26	345	7.54%	1.42%	36.95%
6. Northern Interior	49	206	23.79%	2.96%	24.44%
7. Sacramento Basin	87	551	15.79%	1.55%	19.28%
8. Central Valley	39	508	7.68%	1.18%	30.15%
9. Eastern Sierra	35	174	20.11%	3.02%	29.62%
10. Southern Interior	25	794	3.15%	0.62%	38.57%
<b>Total</b>	<b>474</b>	<b>5,451</b>			

Because the statewide and regional random telephone surveys reflected a true random sample of households in California, we could extrapolate the results of the surveys to the population of California households overall. We applied statistical tools to estimate the level of accuracy in applying our survey results to the statewide and regional populations.

The survey design was originally intended to achieve a 5 percent relative margin of error at the 95 percent confidence interval at the statewide level for the incidence rate calculation. The actual relative margin of error at the 95 percent confidence interval at the statewide level for the incidence rate calculation was 10.05 percent. The margin of error was higher than expected at the statewide level, and also high at the regional level, as shown in **Table B.1**, above.

A 10.05 percent relative margin of error at the 95 percent confidence level means that the

probability is 95 percent that the actual statewide incidence rate falls within +/- 10.05 percent of 7.84 percent, i.e., that the actual statewide incidence rate is between 7.05 percent, and 8.63 percent.

This relative margin of error is driven, primarily, by sample size. There is a statistical “rule of thumb” that states that for a proportion (yes/no) question, the maximum margin of error at the 95 percent confidence level,  $e$ , is equal to  $1/\sqrt{n}$ , where  $n$  is the sample size.<sup>c</sup> Thus, for any given sample size, one can estimate the approximate margin of error at the 95 percent confidence level. Conversely, for a desired error rate, one can estimate the necessary sample size,  $n = 1/e^2$ . Using these equations, a sample size of 400 should result in a margin of error of approximately 5 percent at the 95 percent confidence level. It is important to note that this

<sup>c</sup> This rule is provided in Cochran, *Sampling Techniques*, pages 72-73 (1977). The maximum error rate is based on a proportion in which both  $p$  and  $q$  are equal to 50 percent, the case that results in the largest value of  $p \times q$ , and thus the highest error rate.

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statistical estimator provides an absolute margin of error, not a relative margin of error.

The difference between absolute and relative margins of error is more complicated in the case of proportions, because both figures are percentages. In many cases, survey results do not distinguish between relative and absolute margins of error. The relative margin of error depends on the proportion in question. For example, if one is considering a question in which 65 percent of 400 survey respondents answered “yes”, the absolute margin of error at the 95 percent confidence level would be approximately 5 percent ( $1/\sqrt{400}$ ), but the relative margin of error at the 95 percent confidence level would be  $5/65$ , or 7.7 percent. This means that the probability is 95 percent that the actual result falls within  $\pm 7.7$  percent of 65 percent, or between 60 percent and 70 percent.

The sample size for the incidence rate calculation, of 4,475, would be more than sufficient to achieve a 5 percent relative margin of error at the 95 percent confidence level under reasonable assumptions. In fact, the maximum absolute margin of error, given a sample size of 4,475 is equal to  $1/\sqrt{4,475}$ , or 1.5 percent. However, because the incidence rate was extremely small (about one-half of the 12 percent that we initially projected), the relative error rate was higher, at 10 percent.

The relative margin of error is equal to the absolute margin of error, divided by the incidence rate. Because the sample size is so large, the absolute actual margin of error for the statewide incidence rate is very low, 0.79 percent. However, when compared to the very low incidence rate of 7.84 percent, the relative margin of error is higher.

This much lower than expected incidence rate of non-motorized boat ownership means that it would not have been economically feasible, or reasonable, to achieve a 5 percent relative margin of error at the 95 percent confidence level for the

statewide random survey. Achieving such an error rate would have required a sample size of 18,000 households. By comparison, most national telephone polling surveys are based on maximum sample sizes of between 1,000 and 5,000. There are two reasons why sample sizes typically are not any higher: (1) the high cost of completing each survey; and (2) the fact that there are diminishing returns for improved statistical accuracy once the sample size increases beyond several thousand.

The relative margin of error for the statewide incidence rate can be improved somewhat by calculating the margin of error at the 85 percent confidence level, rather than the 95 percent confidence level. This is a lower statistical standard. The probability is 85 percent that the actual statewide incidence rate falls within  $\pm 7.5$  percent of 7.84 percent, i.e. that the actual statewide incidence rate is between 7.25 percent, and 8.43 percent. The margin of error at 85 percent provides a smaller range for the incidence rate; however, we are slightly less certain that the actual value falls within this range.

The margins of error at the 95 percent confidence interval for the regional incidence rate calculations are much higher than the margin of error for the statewide incidence rate. This was because: (1) the sample size,  $n$ , for each region was much lower than the statewide sample size (between 174 and 1,375); and (2) for many regions the incidence rate was even lower, resulting in a lower denominator for the calculation of the relative margin of error.

Thus, even in a region with a relatively large sample size, such as the South Coast region, the low incidence rate of 4.87 percent resulted in a high margin of error of 23.4 percent. What this means for the South Coast region is: there is a probability of 95 percent that the actual South Coast region incidence rate falls within  $\pm 23.4$  percent of 4.87 percent, i.e., that the actual South Coast incidence rate is between 3.73 percent, and 6.01 percent.



**Table B.2**  
**Statewide Random Telephone Survey Boat Type Incidence Rates and Margin of Errors**  
**at a 95 Percent Confidence Interval (2006)**

Boat Type	Survey Number of Households (n=4,475)	Survey Number of Boats	Percent of Boats	Estimated Statewide Number of Boats	Household Incidence Rate	Boats per Household by Type	Standard Deviation of Incidence Rate	Relative Margin of Error at a 95 percent Confidence Interval, Incidence Rate
Statewide Random Survey Total	351	616	100.0%	1,696,987	7.84%	1.75	0.40%	10.05%
a. Boats Utilized 5 Days or More per Year								
1. Kayak	109	171	27.76%	471,084	2.44%	1.57	0.23%	18.53%
2. Inflatable*	112	151	24.51%	415,931	2.50%	1.35	0.23%	18.30%
3. Canoe	41	45	7.30%	123,880	0.92%	1.10	0.14%	30.41%
4. Rowing Boat	30	34	5.52%	93,674	0.67%	1.13	0.12%	35.67%
5. Sailboard/Kiteboard	10	16	2.60%	44,122	0.22%	1.60	0.07%	62.40%
6. Small Sailboat**	7	7	1.14%	19,345	0.16%	1.00	0.06%	73.19%
7. Other	3	3	0.49%	8,315	0.07%	1.00	0.04%	110.70%
8. Combined Boats #4 to #7	50	60	9.74%	165,456	1.12%	1.20	0.16%	27.53%
b. Boats Utilized 1 to 4 Days per Year	82	109	17.69%	300,197	1.83%	1.33	0.20%	21.46%
c. Boats Not Utilized Within Last 5 Years	63	80	12.99%	220,439	1.41%	1.27	0.18%	24.50%
<b>Total</b>		<b>616</b>	<b>100.00%</b>	<b>1,696,987</b>				

\* For purposes of this study, the “inflatable” category includes inflatable rafts, catarafts, and transoms. Inflatable kayaks are included in the “kayak” category.  
 \*\* Many boaters consider any sailboat that they store at home, and load on their car, as a “small sailboat”, even if the sailboat is longer than 8 feet in length. This estimate of small sailboats includes a significant number of these longer small sailboats.

Table B.2, above, provides the margins of error at the 95 percent confidence interval for the boat type incidence rate calculations. As Table B.2 illustrates, these error rates are much higher than the margin of error for the statewide incidence rate, and are increasingly higher as the incidence rates for particular boat types decrease. Some of these relative error rates are high due to the extremely low incidence rates (between 0.07 percent and 2.50 percent) for boat types.

One can see that we have less statistical confidence in the regional and boat type survey results than the statewide results. Wherever

possible, the reader should focus primarily on the statewide level survey results.

The regional survey results should be interpreted as relative estimates in that the regional results are relatively accurate across regions, and in relative comparison to the statewide totals, even though there were greater margin of errors in the regional results. As a regional comfort factor, the sum of the estimated number of non-motorized boat owning households in each region was less than 10 percent different than the estimated number of non-motorized boat owning households at the much more accurate statewide level.

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Like the regional survey results, the boat type results should be interpreted as relative order-of-magnitude estimates, in that the sum of these boat type estimates are relatively accurate across the state, for boats owned by boat owners that utilized their boat(s) five or more times per year. The fact that the number of boats by boat type estimates calculated by two different methodologies sum to within less than 1 percent of the statewide estimate improves one's confidence in these estimates, even if the relative error rates are high.

We have a moderate degree of confidence for boat type estimates for the two more common boat types (kayaks and inflatable boats), and lower confidence in boat type estimates for each of the other five boat type categories. However, when we combine categories, we have moderate confidence that the total number of regularly used rowing boats, sailboards, kiteboards, small sailboats, and other non-motorized boats is approximately 165,000.

The regional and boat specific results illustrate that providing boat type estimates at the regional level would have required disaggregating the survey results into such small numbers – for example, three respondents in the Sacramento Basin owning a sailboard or kiteboard – that there would be little statistical validity in extrapolating to a regional population. Our approach was to provide those estimates for which we had a moderate (or high) statistical confidence.

## Statewide and Regional Survey Analyses

Exhibit B.2 and Exhibit B.3, following Exhibit B.1, provide summary calculations and results for the statewide and regional random surveys.

Exhibit B.2 provides the series of calculations illustrating the estimates for number of households owning non-motorized boats statewide (969,707), and by region. Once we estimated the number of non-motorized boat owning households, we

determined the number of boats, based on the average number of boats per boat-owning household (1.75 at the State level). To determine total non-motorized boats in California, Exhibit B.2 also includes estimates for commercial/institutional boats (based on the commercial survey summarized in Appendix D), and club-owned boats.

We also used the number of boat-owning households as the basis for calculating the number of participants in non-motorized boating (among boat owners). We calculated this estimate by multiplying the number of households owning non-motorized boats by the average number of participants per household (2.41 at the State level). We then determined the total number of current boat-owning participants, based on the percent of respondents that had participated in non-motorized boating in the last five years. This reduced participation from 2.3 million boat-owning Californians, in total, to 1.9 million current boat-owning Californian participants. To determine total participants, Exhibit B.2 also includes estimates for commercial/institutional participants, and club participants.

Estimating the number of participation days for non-motorized boating in California draws on one additional statistic from the statewide and regional random surveys, the average number of days per non-motorized boating participant. At the statewide level, the average (mean) number of participation days was 23.94. The average participation days at the regional level ranged from 9 to 29. What these average figures do not reflect is the wide range in participation days among respondents. At the statewide level, the number of participation days ranged from 1 to 250. The median participation days at the statewide level were 10, thus one-half of respondents boated 10 days or less, and one half boated 10 days or more. Using the median participation days in order to calculate total participation days would have resulted in a more conservative estimate of the number of days of non-motorized boating in California.

The final page of Exhibit B-2 provides calculations for estimating the number of non-motorized boats, by boat type. We provide estimates for the seven major categories of non-motorized boats, as well as a detailed breakdown for kayaks. It is important to note that when the number of boats, by type, is based on only a few survey respondents (particularly less than 25), we have less statistical confidence in extrapolating to the overall population. In addition, the estimate for small sailboats likely includes a significant number of sailboats that are larger than 8 feet in length, simply because respondents considered these to be “small” sailboats.

Page 5 of Exhibit B.2 provides a second set of calculations for estimating the number of non-motorized boats by boat type and utilization levels. In order to focus on non-motorized boats that Californians utilized most frequently on State waterways, page 5 of Exhibit B.2 provides estimates of non-motorized boats, by boat type, for only those boats that were regularly used by California boat owners, or were in commercial, institutional, or club fleets. Regular non-motorized boat use for boat owners was defined for this study purposes as boats owned by boat owners that utilized their non-motorized boat(s) five (5) or more days per year. The study defined two additional categories of non-motorized boat owners, “infrequent” boaters, defined as non-motorized boat owners that utilized their non-motorized boat(s) between one and four days per year, and “inactive” non-motorized boat owners, defined as non-motorized boat owners that did not utilize their boat(s) in the last five years. For the latter two boat use categories, page 5 of Exhibit B.2 provides only the total number of non-motorized boats.

The boat type estimates were based on the statewide survey responses and the total number of privately owned boats, statewide, of 1,696,987. However, one could achieve the same

results, within less than one percent, using household boat incidence rates and the average number of boats per household, by boat type. (Note, the boat type error rates in Table B.2 are based on the latter calculation approach, consistent with the regional error rates).

Because they are based on a smaller number of survey responses, the boat type estimates provided on page 5 of Exhibit B.2 are less statistically accurate than the overall boat type estimates provided on page 4 of Exhibit B.2. However, these estimates of regularly used boats provide reasonable estimates of the relative number of boats, by boat type, particularly for kayaks and inflatable boats.

The last two pages of Exhibit B.2 provides estimates for participants, and participation days, by boat types. These estimates were adjusted to match the more statistically accurate total number of non-motorized boat-owning participants (1,917,503) and participant days (45,905,022). The number of non-motorized boat owning participants were divided into two categories: (1) boat owners that utilized their boat(s) five or more days per year (regular boaters), and (2) boat owners that utilized their boat(s) only one to four days per year (infrequent boaters). We provide boat specific participants and participation day estimates only for regular boaters.

The participant estimates were conservative in that they do not take into account the fact that some non-motorized boaters may participate with more than one type of non-motorized boat. Because we used the total number of non-motorized boating participants as a starting point, and allocated these participants based on the number of boats, each individual boat owner participant was “assigned” to only one boat type. This approach was necessary because we did not have statewide survey data specific to boat type participation among all respondent household members.

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While the participant estimates provide minimum figures for boat type participants, these estimates involved making assumptions about boat use at a level of detail that we did not include in the survey. While we can generally assume that if 31.9 percent of utilized boats were kayaks, then 31.9 percent of participants used kayaks, we cannot determine how many of those 31.9 percent also used inflatable boats, canoes, and/or other types of non-motorized boats.

Non-motorized boating participation days estimates for regularly boating boat owners were based on: (1) the number of participants by boat type, multiplied by (2) the average number of participation days for regularly boating boat owners, by most-used boat. For example, for those regularly boating respondents that identified a

kayak as their most-used boat, the average number of participation days per year was 37.63. We multiplied 37.63 days by the estimated number of boat owning kayak participants (611,683), and then adjusted the result to match the more accurate overall estimate for total boat-owner participation days of 45,905,022.

Exhibit B.3 provides summary results for several of the questions asked of non-motorized boat-owning households, at the statewide level. The initial questions on boat ownership and final questions on participation trends and demographics were asked of all 351 respondents. Only the 288 respondents that had used their boats in the last five years were asked questions about where, and why, they participate in non-motorized boating.

**Non-Motorized Boating in California  
Statewide Random Survey**

**Telephone Questionnaire**

The California Department of Boating and Waterways is conducting its first ever study of non-motorized boating in California to understand how economically important boating is to California, and to plan future facilities to meet the needs of boaters. All your responses will be kept strictly confidential, and will only be presented in the aggregate form, together with other responses. The results of this study will be available late next year at the California Department of Boating and Waterways web page, [www.dbw.ca.gov](http://www.dbw.ca.gov).

Which of the following types of vehicles or vessels do you or someone in your household, currently own. [Initial screen question, interviewers continued the survey if the respondent had any of the non-motorized boat categories.]

- |               |   |   |
|---------------|---|---|
| 1. Motorcycle | 6. Motorboat                                  | 10. Rowing boat, including row boats, shells, sculls, dories, or driftboats |
| 2. Canoe      | 7. Inflatable boat or raft                    | 11. Sailboard or kiteboard  |
| 3. Kayak      | 8. Small sailboat 8 feet in length or shorter | 12. Other type of non-motorized boat.                                       |
| 4. SUV        | 9. Sailboat over 8 feet                       |   |
| 5. Bicycle    |   |   |

[If needed] For purposes of this study, "non-motorized boat" means any boat **not** currently registered with a vessel registration (CF) number from the California Department of Motor Vehicles. This non-motorized boat definition includes: (1) boats propelled by paddles or oars, and usually without a motor, such as canoes, kayaks, inflatable boats and rafts, rowing boats (including row boats, shells, sculls, dories, or driftboats), and other types of manually propelled boats; (2) sailboats 8 feet in length or shorter, and usually without a motor; and (3) sailboards or kiteboards. Non-motorized boats **do not** include "toy like" blow-up rafts and other non-durable water toys.

**Directions and clarifications are provided in bold type.**

\* \* \* \* \*

1. There are many kinds of non-motorized boats, and we are interested in identifying specific types of boats you, or someone in your household, **currently owns**. Our definition of non-motorized boats means any boat **not** currently registered with a vessel registration (CF) number from the California Department of Motor Vehicles. This non-motorized boat definition includes: (1) boats propelled by paddles or oars, and usually without a motor, such as canoes, kayaks, inflatable boats and rafts, rowing boats (including row boats, shells, sculls, dories, or driftboats), and other types of manually propelled boats; (2) sailboats 8 feet in length or shorter, and usually without a motor; and (3) sailboards or kiteboards. Non-motorized boats **do not** include "toy like" blow-up rafts and other non-durable water toys. Do you or anyone in your household, own one or more of the following non-motorized boats, within this definition? (**Indicate all that apply**)

- 1 A. Canoe
- 2 B. Kayak
- 3 C. Inflatable Boat or Raft
- 4 D. Small Sailboat (8 feet in length or shorter)
- 5 E. Rowing Boat (including row boat, shell, scull, dory, or driftboat)
- 6 F. Sailboard or Kiteboard
- 7 G. Other type of non-motorized boat
- 8 I don't own a non-motorized boat. If you do not own a non-motorized boat, you do not need to complete the remainder of this survey.

Statewide Random Survey – Questionnaire (continued)

Complete question #2 for each category of non-motorized boat that you indicated above. If the specific type of non-motorized boat that you own is not identified, please fill in the appropriate “Other” entry.

2. Please identify the specific type of non-motorized boat, and how many of that type of boat that you, or someone in your household, owns. (Indicate all that apply)

**A. Canoes**

- 9 Hard-shell canoe – How many? \_\_\_\_ 10
- 11 Inflatable canoe – How many? \_\_\_\_ 12
- 13 Other specialty canoes:
  - 14 Hunting – How many? \_\_\_\_ 15
  - 16 Fishing – How many? \_\_\_\_ 17
  - 18 Outrigger – How many? \_\_\_\_ 19
  - 20 Whitewater – How many? \_\_\_\_ 21
  - 22 Other: \_\_\_\_\_ 23  
– How many? \_\_\_\_ 24

**B. Kayaks**

- 25 Recreational (flat-top plastic) kayak – How many? \_\_\_\_ 26
- 27 Inflatable kayak – How many? \_\_\_\_ 28
- 29 Whitewater kayak – How many? \_\_\_\_ 30
- 31 Sea or touring kayak – How many? \_\_\_\_ 32
- 33 Other specialty kayaks:
  - 34 Fishing kayak – How many? \_\_\_\_ 35
  - 36 Sailing kayak – How many? \_\_\_\_ 37
  - 38 Surfski – How many? \_\_\_\_ 39
  - 40 Surf kayak – How many? \_\_\_\_ 41
  - 42 Scuba kayak – How many? \_\_\_\_ 43
  - 44 Folding kayak – How many? \_\_\_\_ 45
  - 46 Other: \_\_\_\_\_ 47  
– How many? \_\_\_\_ 48

**C. Inflatable Boats and Rafts**

- 49 Inflatable raft – How many? \_\_\_\_ 50
- 51 Inflatable cataraft – How many? \_\_\_\_ 52
- 53 Inflatable transom boat or tender – How many? \_\_\_\_ 54
- 55 Other inflatable boat \_\_\_\_\_ – How many? \_\_\_\_ 56

**D. Sailboats**

- 57 Small sailboat (8 feet or shorter, such as an “El Toro”) – How many? \_\_\_\_ 58

**E. Rowing Boats**

- 59 Rowing shell or scull – How many? \_\_\_\_ 60
- 61 Row boat/dory/driftboat/tender – How many? \_\_\_\_ 62

**F. Sailboard/Kiteboard**

- 63 Sailboard – How many? \_\_\_\_ 64
- 65 Kiteboard – How many? \_\_\_\_ 66

**G. Other Non-Motorized Boats**

- 67 Dragon boat – How many? \_\_\_\_ 68
- 69 Paddle/peddle boat – How many? \_\_\_\_ 70
- 71 Other type of non-motorized boat: \_\_\_\_\_ 72 How many? \_\_\_\_ 73

Statewide Random Survey – Questionnaire (continued)

3. Did you use your non-motorized boat (or boats) in the last five years?

<sup>74</sup> Yes <sup>75</sup> No (If “no”, please skip to question #39)

**Answer question #4 if, from question #2, you own more than one type of non-motorized boat. If you own only one type of non-motorized boat, skip to question #5.**

4. If you own more than one type of non-motorized boat, which boat type do you use most often?(for example, “whitewater kayak” or “rowboat”) \_\_\_\_\_<sup>76</sup>

**If you have multiple non-motorized boats, answer questions #5 to #15 for the one type of non-motorized boat that you use most often.**

\* \* \* \* \*

5. How many years have you owned this type of non-motorized boat? \_\_\_\_\_<sup>77</sup>

6. How many days a year do you typically use this type of non-motorized boat? \_\_\_\_\_<sup>78</sup>

7. On what waterway do you use your non-motorized boat most often?  
\_\_\_\_\_<sup>79</sup>

8. Please indicate any of the following that best describe why you used your non-motorized boat at this waterway: (Indicate all that apply)

- <sup>80</sup> Close to home, or convenient access
- <sup>81</sup> Facilities (parking, restrooms, day-use, camping)
- <sup>82</sup> Water and/or flow conditions (for example: rapids, wave conditions, wind conditions, reliable water flows, calm water, variety, clean water, etc.)
- <sup>83</sup> Not crowded
- <sup>84</sup> Visiting location for another reason (sightseeing, hiking, biking, camping, vacation, etc.)
- <sup>85</sup> Access to another activity (hunting, fishing, scuba/snorkeling, birdwatching, etc.)
- <sup>86</sup> Features or destinations (beach, shoreline, amenities, boating trails)
- <sup>87</sup> Other: \_\_\_\_\_<sup>88</sup>

9. Are there improvements or facility needs that would support non-motorized boating at this waterway? Examples of facility needs include restrooms, parking, signage, boating trails, storage, etc.

<sup>89</sup> Yes <sup>90</sup> No (If “no”, skip to question #11)

10. If yes, what are they? (Indicate all that apply)

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> <sup>91</sup> Improved access to water            | <input type="checkbox"/> <sup>98</sup> Boating trails       | <input type="checkbox"/> <sup>104</sup> Improved water quality      |
| <input type="checkbox"/> <sup>92</sup> Maintain water level/water releases | <input type="checkbox"/> <sup>99</sup> Docks                | <input type="checkbox"/> <sup>105</sup> Picnic areas                |
| <input type="checkbox"/> <sup>93</sup> Parking                             | <input type="checkbox"/> <sup>100</sup> Floats/launch ramps | <input type="checkbox"/> <sup>106</sup> Camping                     |
| <input type="checkbox"/> <sup>94</sup> Restrooms                           | <input type="checkbox"/> <sup>101</sup> Beach area          | <input type="checkbox"/> <sup>107</sup> Motor-boat free zones       |
| <input type="checkbox"/> <sup>95</sup> Showers                             | <input type="checkbox"/> <sup>102</sup> Storage             | <input type="checkbox"/> <sup>108</sup> Whitewater park             |
| <input type="checkbox"/> <sup>96</sup> Freshwater boat wash                | <input type="checkbox"/> <sup>103</sup> Signage             | <input type="checkbox"/> <sup>109</sup> Other: _____ <sup>110</sup> |
| <input type="checkbox"/> <sup>97</sup> Low-impact facilities               |   |   |

11. Is there a second waterway where you use your non-motorized boat?

<sup>111</sup> Yes <sup>112</sup> No (If “no”, skip to question #16)

12. If yes, what is the name of that waterway? \_\_\_\_\_<sup>113</sup>

Statewide Random Survey – Questionnaire (continued)

13. Why do you boat at this second waterway: **(Identify up to three reasons)**

- 1. \_\_\_\_\_<sup>114</sup>
- 2. \_\_\_\_\_<sup>115</sup>
- 3. \_\_\_\_\_<sup>116</sup>

14. Are there improvements or facility needs that would support non-motorized boating at this second waterway? <sup>117</sup> Yes <sup>118</sup> No **(If “no”, skip to question #16)**

15. If yes, what are they? **(Identify up to three improvements or facility needs)**

- 1. \_\_\_\_\_<sup>119</sup>
- 2. \_\_\_\_\_<sup>120</sup>
- 3. \_\_\_\_\_<sup>121</sup>

\* \* \* \* \*

16. Is there a California waterway that you avoid using, or would use more often, except that there are problems or facility needs at the waterway? <sup>122</sup> Yes <sup>123</sup> No **(If “no”, skip to question #19)**

17. If yes, what is the name of that waterway? \_\_\_\_\_<sup>124</sup>

18. If yes, please identify the problems or facility needs at that waterway: **(Indicate all that apply)**

- |  |   |
|--|---|
| <input type="checkbox"/> <sup>125</sup> Lack of access for non-motorized boats                           | <input type="checkbox"/> <sup>130</sup> Water conditions (water quality, obstructions, rapids, currents, low water levels, floating debris, etc.) |
| <input type="checkbox"/> <sup>126</sup> Overcrowding   | <input type="checkbox"/> <sup>131</sup> Reckless boaters  |
| <input type="checkbox"/> <sup>127</sup> Inconsistent water flows and/or problems related to dam releases | <input type="checkbox"/> <sup>132</sup> Other: _____  |
| <input type="checkbox"/> <sup>128</sup> Inadequate parking   | _____ <sup>133</sup>  |
| <input type="checkbox"/> <sup>129</sup> Lack of or inadequate restrooms                                  |   |

\* \* \* \* \*

**Answer questions #19 to #24 only if you have more than one type of non-motorized boat, as identified in question #2. For example, if you have a sea kayak and a whitewater kayak, this would count as two types of boats. If you have six whitewater kayaks, this counts as only one type of boat. If you have only one type of boat, skip to question #25.**

19. What is the non-motorized boat type, from question #2, that you use the second most often?  
\_\_\_\_\_<sup>134</sup>

20. How many years have you owned this second type of non-motorized boat? \_\_\_\_\_<sup>135</sup>

21. How many days a year do you typically use this second type of non-motorized boat? \_\_\_\_\_<sup>136</sup>

**If you own a third type of non-motorized boat, answer questions #22 to #24, if not, skip to question #25.**

22. If you have more than two non-motorized boat types, from question #2, what is the non-motorized boat type that you use the third most often? \_\_\_\_\_<sup>137</sup>

23. How many years have you owned this third type of non-motorized boat? \_\_\_\_\_<sup>138</sup>

24. How many days per year do you typically use this third type of non-motorized boat? \_\_\_\_\_<sup>139</sup>

\* \* \* \* \*



Statewide Random Survey – Questionnaire (continued)

25. There are many reasons why people use non-motorized boats. Please indicate the reason (or multiple reasons) why you participate in non-motorized boating. **(Indicate all that apply)**

- |  |  |
|--|--|
| <input type="checkbox"/> <sub>140</sub> Recreation                               | <input type="checkbox"/> <sub>145</sub> For fitness  |
| <input type="checkbox"/> <sub>141</sub> Leisure and relaxation                   | <input type="checkbox"/> <sub>146</sub> For competition  |
| <input type="checkbox"/> <sub>142</sub> As a social activity                     | <input type="checkbox"/> <sub>147</sub> To enjoy nature  |
| <input type="checkbox"/> <sub>143</sub> As a family activity                     | <input type="checkbox"/> <sub>148</sub> To participate in another activity such as fishing, hunting, snorkeling, or scuba diving |
| <input type="checkbox"/> <sub>144</sub> For the physical and/or mental challenge | <input type="checkbox"/> <sub>149</sub> Other reason: _____  |
- \_\_\_\_\_150

26. Do you have safety concerns related to non-motorized boating? <sub>151</sub> Yes <sub>152</sub> No  
**(If “no”, skip to question #28)**

27. If yes, what are they? **(Indicate all that apply)**

- |   |  |
|---|--|
| <input type="checkbox"/> <sub>153</sub> Interactions with motorized vessels   | <input type="checkbox"/> <sub>158</sub> Boaters not using PFDs (personal floatation devices)                       |
| <input type="checkbox"/> <sub>154</sub> Inexperienced or unprepared boaters   | <input type="checkbox"/> <sub>159</sub> Using unsafe boats or equipment (ropes, paddles, improper boat, no helmet) |
| <input type="checkbox"/> <sub>155</sub> Problems related to overcrowding  | <input type="checkbox"/> <sub>160</sub> Waterborne illness/poor water quality                                      |
| <input type="checkbox"/> <sub>156</sub> Boating in unsafe water conditions (rapids, waves, rocks, debris, unpredictable flows, tides, currents, cold water, high water, cold water) | <input type="checkbox"/> <sub>161</sub> Other safety concerns: _____   |
| <input type="checkbox"/> <sub>157</sub> Boating in unsafe weather conditions (wind, cold, heat, lightening)   | _____162   |

28. This question relates to annual spending for durable goods and services related to non-motorized boating, not including boating trips. In the last 12 months, how much have you, and your household, spent on non-motorized boating equipment, supplies and services, for each of the following categories: **(Provide your best estimate)**

- \$ \_\_\_\_\_<sub>163</sub> New boats
- \$ \_\_\_\_\_<sub>164</sub> Used boats
- \$ \_\_\_\_\_<sub>165</sub> Repairs
- \$ \_\_\_\_\_<sub>166</sub> Boating supplies and equipment (racks, paddles, PFDs, ropes, parts, pumps, bags, sails, carts, helmets, etc.)
- \$ \_\_\_\_\_<sub>167</sub> Other gear (apparel, footwear, accessories)
- \$ \_\_\_\_\_<sub>168</sub> Memberships
- \$ \_\_\_\_\_<sub>169</sub> Classes, instruction, events
- \$ \_\_\_\_\_<sub>170</sub> Books, magazines, videos, DVDs
- \$ \_\_\_\_\_<sub>171</sub> Other annual expenses: \_\_\_\_\_172

\* \* \* \* \*

Statewide Random Survey – Questionnaire (continued)

The next several questions are about your most recent non-motorized boating trip in California, within the last five years. This could be a one-day outing, or a several-day trip.

29. First, what is the name of the waterway that you went to on your most recent trip?

\_\_\_\_\_173

30. If you have more than one type of non-motorized boat, from question #2, which boat type did you use on this trip?

\_\_\_\_\_174

31. Was non-motorized boating the primary purpose of this trip? 175 Yes 176 No

If “yes”, go to question #34, if “no”, answer questions #32 and #33, then go to question #34.

32. If no, what was the primary purpose of this trip? (Indicate one)

- 177 Camping
- 178 Motorized boating activity
- 179 Hiking or biking
- 180 Fishing or hunting
- 181 Sightseeing
- 182 Participating in another event (family gathering, vacation, business, sporting event)
- 183 Other : \_\_\_\_\_184

33. If no, what percent of your activity time (excluding travel) was spent on non-motorized boating?

\_\_\_\_\_185

\* \* \* \* \*

34. How many days was this trip? \_\_\_\_\_186

35. How many hours one-way did it take you to travel to your destination? \_\_\_\_\_187

36. How many miles one-way from your home is this destination? \_\_\_\_\_188

37. How many people traveled with you, in your immediate group, on this trip? \_\_\_\_\_189

38. For this most recent non-motorized boating trip, how much did you and your immediate traveling group spend for the following categories: (Provide your best estimate)

- \$ \_\_\_\_\_190 Fuel
- \$ \_\_\_\_\_191 Parking
- \$ \_\_\_\_\_192 Entrance and/or launch fees
- \$ \_\_\_\_\_193 Shuttle services
- \$ \_\_\_\_\_194 Grocery and convenience stores
- \$ \_\_\_\_\_195 Retail, gift, specialty, or other stores
- \$ \_\_\_\_\_196 Restaurants
- \$ \_\_\_\_\_197 Motels/hotels
- \$ \_\_\_\_\_198 Campgrounds
- \$ \_\_\_\_\_199 Other: \_\_\_\_\_200

Statewide Random Survey – Questionnaire (continued)

\* \* \* \* \*

39. How many years have you been involved in some form of non-motorized boating?

- <sub>201</sub> Less than 5 years
- <sub>202</sub> 5 to 9 years
- <sub>203</sub> 10 to 14 years
- <sub>204</sub> 15 to 20 years
- <sub>205</sub> More than 20 years

40. In the next five years, how many days per year do you think you will participate in non-motorized boating, as compared to the last five years? (**Indicate one**) (If “a lot more” or “a little more”, answer question #41, then go to question #43; if “a lot less” or “a little less”, skip to question #42; if “about the same”, skip to question #43)

- <sub>206</sub> A lot more
- <sub>207</sub> A little more
- <sub>208</sub> About the same
- <sub>209</sub> A little less
- <sub>210</sub> A lot less

41. If you answered a lot more, or a little more, why will you be increasing your participation? (**Indicate all that apply**)

- <sub>211</sub> More free time
- <sub>212</sub> Enjoy the activity
- <sub>213</sub> Non-motorized boating is replacing another hobby/activity
- <sub>214</sub> As a social activity/my friends are doing it
- <sub>215</sub> As a family activity/my family is doing it
- <sub>216</sub> My skill level has improved
- <sub>217</sub> To try new types of non-motorized boating
- <sub>218</sub> Other: \_\_\_\_\_<sub>219</sub>

42. If you answered a lot less, or a little less, why will you decrease participation? (**Indicate all that apply**)

- <sub>220</sub> Not enough time
- <sub>221</sub> No longer interested
- <sub>222</sub> Lack of access to an appropriate waterway
- <sub>223</sub> Lack of facilities or inadequate facilities
- <sub>224</sub> Logistics make it too difficult
- <sub>225</sub> Expense
- <sub>226</sub> Health/illness/injury
- <sub>227</sub> Too crowded
- <sub>228</sub> Other: \_\_\_\_\_<sub>229</sub>

Statewide Random Survey – Questionnaire (continued)

43. Are you a member of any non-motorized boating clubs or organizations?  
<sup>230</sup> Yes <sup>231</sup> No (If “no”, skip to question #45)

44. If yes, please list all the non-motorized boating organizations or clubs that you belong to:  
(Identify up to five organizations or clubs)

1. \_\_\_\_\_<sup>232</sup>
2. \_\_\_\_\_<sup>233</sup>
3. \_\_\_\_\_<sup>234</sup>
4. \_\_\_\_\_<sup>235</sup>
5. \_\_\_\_\_<sup>236</sup>

**The last several questions will help us understand who participates in non-motorized boating activities. Remember, your answers are confidential, and will only be presented in aggregate form.**

45. What is your age?

- <sup>237</sup> Under 18
- <sup>238</sup> 18-25
- <sup>239</sup> 25-34
- <sup>240</sup> 35-44
- <sup>241</sup> 45-55
- <sup>242</sup> 56-65
- <sup>243</sup> Over 65

46. What is your zip code? \_\_\_\_\_<sup>244</sup>

47. What is your gender? <sup>245</sup> Male <sup>246</sup> Female

48. What is your marital status? <sup>247</sup> Single <sup>248</sup> Married

49. How many people are in your household? \_\_\_\_\_<sup>249</sup>

50. How many people in your household participate in non-motorized boating? \_\_\_\_\_<sup>250</sup>

51. What is your ethnicity?

- <sup>251</sup> Caucasian
- <sup>252</sup> Black
- <sup>253</sup> Latin
- <sup>254</sup> Native American
- <sup>255</sup> Asian
- <sup>256</sup> Other

Statewide Random Survey – Questionnaire (continued)

52. What level of education have you completed?

- <sub>257</sub> High school
- <sub>258</sub> Some college
- <sub>259</sub> B.A. or equivalent
- <sub>260</sub> Advanced degree (MS, MA, PhD, MD, JD, etc.)

53. What was your household's combined income for 2005?

- <sub>261</sub> Under \$25,000
- <sub>262</sub> \$25,000 up to \$50,000
- <sub>263</sub> Over \$50,000 up to \$100,000
- <sub>264</sub> Over \$100,000 up to \$200,000
- <sub>265</sub> Over \$200,000

54. Please provide any additional comments or suggestions related to non-motorized boating or non-motorized boating facilities in California:

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Thank you for your time. Do you have any questions?

**Exhibit B.2**

**Number of Boats, Households, and Participants Based on Statewide and Regional Random Telephone Survey of California Households (2006)**

**Incidence Rate - Percent of Households Owning One or More Non-Motorized Boats, Statewide and By Region in California (2006)**

	A. Completed State Surveys	B. Completed Region Surveys	C. Total Completed Surveys (A+B)	D. State Did Not Qualify	E. Region Did Not Qualify	F. Total Did Not Qualify (D+E)	G. Total Contacts (C+F)	H. Incidence Rate C/G
Statewide Total	351	–	351	4,124	–	4,124	4,475	<b>7.84%</b>
1. North Coast (NC)	34	12	46	116	77	193	239	19.25%
2. San Francisco Bay Area (SF)	62	5	67	882	72	954	1,021	6.56%
3. Central Coast (CC)	21	12	33	130	75	205	238	13.87%
4. South Coast (SC)	67	–	67	1,308	–	1,308	1,375	4.87%
5. San Diego (SD)	26	–	26	319	–	319	345	7.54%
6. Northern Interior (NI)	3	46	49	10	147	157	206	23.79%
7. Sacramento Basin (SB)	87	–	87	459	5	464	551	15.79%
8. Central Valley (CV)	39	–	39	469	–	469	508	7.68%
9. Eastern Sierra (ES)	–	35	35	6	133	139	174	20.11%
10. Southern Interior (SI)	12	13	25	425	344	769	794	3.15%
<b>Total</b>	<b>351</b>	<b>123</b>	<b>474</b>	<b>4,124</b>	<b>853</b>	<b>4,977</b>	<b>5,451</b>	

**Number of Households Owning One or More Non-Motorized Boats, Statewide and By Region in California (2006)**

	I. California Households (2006)	J. NMB Owning Households (unadjusted) (H x I)	K. Percent NMB Owning HH by Region	L. Regional HH Adjustment (K x N)	M. Adjusted NMB Owning Households (J + L)
Statewide Total	12,368,706	<b>969,707</b>			<b>969,707</b>
1. North Coast (NC)	281,433	54,176	6.12%	5,215	59,391
2. San Francisco Bay Area (SF)	2,416,004	158,490	17.92%	15,270	173,760
3. Central Coast (CC)	325,073	45,088	5.10%	4,346	49,434
4. South Coast (SC)	4,613,738	224,689	25.40%	21,643	246,332
5. San Diego (SD)	1,069,740	80,658	9.12%	7,771	88,429
6. Northern Interior (NI)	34,082	8,108	0.92%	784	8,892
7. Sacramento Basin (SB)	1,107,034	174,801	19.76%	16,838	191,639
8. Central Valley (CV)	1,249,799	95,985	10.85%	9,245	105,230
9. Eastern Sierra (ES)	14,386	2,893	0.33%	281	3,174
10. Southern Interior (SI)	1,257,417	39,609	4.48%	3,817	43,426
<b>Total</b>	<b>12,368,706</b>	<b>884,497</b>	<b>100.00%</b>	<b>85,210</b>	<b>969,707</b>
<b>N. Difference, State – Region Sum</b>		85,210			

**Number of Non-Motorized Boats Owned by Households, Statewide and By Region in California (2006)**

	C. Total Completed Surveys	O. Total Boats Owned by Respondents	P. Average Number of Boats per Household (O/C)	Q. NMBs Owned by HH (unadjusted) (M x P)	R. Percent NMBs by Region	S. Regional NMB Adjustment (R x U)	T. Adjusted NMBs Owned by HH (Q + S)
Statewide Total	351	616	1.75	<b>1,696,987</b>			<b>1,696,987</b>
1. North Coast (NC)	46	79	1.72	102,153	6.21%	3,196	105,349
2. San Francisco Bay Area (SF)	67	111	1.66	288,442	17.53%	9,023	297,465
3. Central Coast (CC)	33	64	1.94	95,902	5.83%	3,001	98,903
4. South Coast (SC)	67	105	1.57	386,741	23.50%	12,096	398,837
5. San Diego (SD)	26	44	1.69	149,445	9.08%	4,674	154,119
6. Northern Interior (NI)	49	94	1.92	17,073	1.04%	535	17,608
7. Sacramento Basin (SB)	87	161	1.85	354,532	21.54%	11,087	365,619
8. Central Valley (CV)	39	63	1.62	170,473	10.36%	5,332	175,805
9. Eastern Sierra (ES)	35	67	1.91	6,062	0.37%	190	6,252
10. Southern Interior (SI)	25	43	1.72	74,693	4.54%	2,337	77,030
<b>Total</b>				<b>1,645,516</b>	<b>100.00%</b>	<b>51,471</b>	<b>1,696,987</b>
<b>U. Difference, State – Region Sum</b>				51,471			

We normalized regional results to reflect more statistically accurate statewide total boat-owning households and boats, using an adjustment factor equal to the relative percent of households (or boats) in each region, based on the regional survey results. We then applied this percent to allocate the difference between the statewide estimate and the sum of regional estimates proportionally to each region.

## B. Statewide and Regional Random Surveys

### Exhibit B.2

#### Number of Boats, Households, and Participants Based on Statewide and Regional Random Telephone Survey of California Households (2006) (continued)

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#### Individuals from Non-Motorized Boat-Owning Households Participating in Non-Motorized Boating, Statewide and By Region in California (2006)

	M. Adjusted NMB Owning Households	C. Total Completed Surveys	V. Respondent's Total HH Participants	W. Average Participants per HH (V/C)	X. Total NMB Owning HH Participants (unadjusted) (M x W)	Y. Percent Participants by Region	Z. Regional Participant Adjustment (AB x Y)	AA. Adjusted Total NMB Owning HH Participants (X+Z)
Statewide Total	<b>969,707</b>	351	845	2.41	2,336,994			2,336,994
1. North Coast (NC)	59,391	46	104	2.26	134,224	5.71%	(847)	133,377
2. San Francisco Bay Area (SF)	173,760	67	155	2.31	401,386	17.07%	(2,532)	398,854
3. Central Coast (CC)	49,434	33	88	2.67	131,989	5.61%	(832)	131,157
4. South Coast (SC)	246,332	67	171	2.55	628,147	26.71%	(3,962)	624,185
5. San Diego (SD)	88,429	26	55	2.12	187,469	7.97%	(1,182)	186,287
6. Northern Interior (NI)	8,892	49	115	2.35	20,896	0.89%	(132)	20,764
7. Sacramento Basin (SB)	191,639	87	191	2.20	421,606	17.92%	(2,658)	418,948
8. Central Valley (CV)	105,230	39	111	2.85	299,906	12.75%	(1,891)	298,015
9. Eastern Sierra (ES)	3,174	35	70	2.00	6,348	0.27%	(40)	6,308
10. Southern Interior (SI)	43,426	25	69	2.76	119,856	5.10%	(757)	119,099
<b>Total</b>	<b>969,707</b>				<b>2,351,827</b>	<b>100.00%</b>	<b>(14,833)</b>	<b>2,336,994</b>
<b>AB. Difference, State - Region Sum</b>					(14,833)			

#### Currently Participating Individuals from Non-Motorized Boat-Owning Households Participating in Non-Motorized Boating, Statewide and By Region (used their boat in the last five years) in California (2006)

	M. Adjusted NMB Owning Households	W. Average Participants per HH (V/C)	AC. Number of Respondents Boating in Last 5 Years	C. Total Completed Surveys	AD. Percent of Respondents Boating in Last Five Years (AC/C)	AE. Number of Current Participants from NMB HH (unadjusted) (M x W x AD)	AF. Percent Participants by Region	AG. Regional Participant Adjustment (AF x AI)	AH. Adjusted Current NMB Participants (AE + AG)
Statewide Total	<b>969,707</b>	2.41	288	351	82.05%	<b>1,917,503</b>			<b>1,917,503</b>
1. North Coast (NC)	59,391	2.26	40	46	86.96%	116,721	6.10%	226	116,947
2. San Francisco Bay Area (SF)	173,760	2.31	53	67	79.10%	317,496	16.59%	615	318,111
3. Central Coast (CC)	49,434	2.67	30	33	90.91%	119,991	6.27%	232	120,223
4. South Coast (SC)	246,332	2.55	55	67	82.09%	515,646	26.94%	998	516,644
5. San Diego (SD)	88,429	2.12	23	26	88.46%	165,836	8.67%	321	166,157
6. Northern Interior (NI)	8,892	2.35	43	49	87.76%	18,339	0.96%	36	18,375
7. Sacramento Basin (SB)	191,639	2.20	70	87	80.46%	339,224	17.72%	657	339,881
8. Central Valley (CV)	105,230	2.85	31	39	79.49%	238,395	12.46%	462	238,857
9. Eastern Sierra (ES)	3,174	2.00	30	35	85.71%	5,441	0.28%	10	5,451
10. Southern Interior (SI)	43,426	2.76	16	25	64.00%	76,708	4.01%	149	76,857
<b>Total</b>	<b>969,707</b>					<b>1,913,797</b>	<b>100.00%</b>	<b>3,706</b>	<b>1,917,503</b>
<b>AI. Difference, State - Region Sum</b>						3,706			

**Exhibit B.2**

**Number of Boats, Households, and Participants Based on Statewide and Regional Random Telephone Survey of California Households (2006) (continued)**

**Total Current California Non-Motorized Boating Participants – NMB Owners, Commercial and Institutional Participants, Club Participants, Statewide and by Region (2006)**

	AH. Adjusted Current NMB Participants (AE + AG)	AJ. Commercial/ Institutional Participants	AK. Club Participants	AL. Total Participants (AH+AJ+AK)	AM. California Population (2006)	AN. Participants as Percent of CA Population (AL/AM)	AO. CA Population Age 12 and Over (81.2%)	AP. Participants as Percent Population 12 and Over (AL/AO)
Statewide Total	1,917,503	539,822	33,000	<b>2,490,325</b>	37,195,240	6.70%	30,202,535	8.25%
1. North Coast (NC)	116,947	70,523		187,470				
2. San Francisco Bay Area (SF)	318,111	45,122	9,000	372,233				
3. Central Coast (CC)	120,223	26,404	1,400	148,027				
4. South Coast (SC)	516,644	108,317	12,800	637,761				
5. San Diego (SD)	166,157	52,979	9,600	228,736				
6. Northern Interior (NI)	18,375	13,953		32,328				
7. Sacramento Basin (SB)	339,881	122,627	200	462,708				
8. Central Valley (CV)	238,857	96,622		335,479				
9. Eastern Sierra (ES)	5,451	725		6,176				
10. Southern Interior (SI)	76,857	2,550		79,407				
<b>Total</b>	<b>1,917,503</b>	<b>539,822</b>	<b>33,000</b>	<b>2,490,325</b>				

Note: Regional participation rates were not calculated because many commercial/institutional participants do not live in the region that they participated in.

**Total Current California Non-Motorized Boating Participation Days – NMB Owners, Commercial and Institutional Participants, Club Participants, Statewide and By Region (2006)**

	AQ. Average Currently Participating Boat Owner Annual Days	AR. Total Currently Participating Boat Owner Annual Days (unadjusted) (AH x AQ)	AS. Percent Days by Region	AT. Regional Participation Days Adjustment (AS x AZ)	AU. Total Adjusted Currently Participating Boat Owner Annual Days (AR+AT)	AV. Commercial/ Institutional Participation Days	AW. Club Participation Days	AX. Total Participation Days (AU+AV+AW)	AY. Percent Total Participation Days by Region
Statewide Total	23.94	45,905,022			<b>45,905,022</b>	726,472	1,870,000	<b>48,501,494</b>	
1. North Coast (NC)	22.98	2,687,442	6.03%	79,598	2,767,040	86,377		2,853,417	5.88%
2. San Francisco Bay Area (SF)	20.74	6,597,622	14.80%	195,364	6,792,986	54,838	542,500	7,390,324	15.24%
3. Central Coast (CC)	19.87	2,388,831	5.36%	70,754	2,459,585	33,485	68,500	2,561,570	5.28%
4. South Coast (SC)	22.87	11,815,648	26.50%	349,808	12,165,456	126,817	708,000	13,000,273	26.80%
5. San Diego (SD)	26.61	4,421,438	9.92%	130,947	4,552,385	57,476	531,000	5,140,861	10.60%
6. Northern Interior (NI)	21.05	386,794	0.87%	11,484	398,278	23,415		421,693	0.87%
7. Sacramento Basin (SB)	24.53	8,337,281	18.70%	246,845	8,584,126	193,312	20,000	8,797,438	18.14%
8. Central Valley (CV)	29.74	7,103,607	15.93%	210,281	7,313,888	147,324		7,461,212	15.39%
9. Eastern Sierra (ES)	23.43	127,717	0.28%	3,696	131,413	878		132,291	0.27%
10. Southern Interior (SI)	9.35	718,613	1.61%	21,252	739,865	2,550		742,415	1.53%
<b>Total</b>		<b>44,584,993</b>	<b>100.00%</b>	<b>1,320,029</b>	<b>45,905,022</b>	<b>726,472</b>	<b>1,870,000</b>	<b>48,501,494</b>	<b>100.00%</b>
<b>AZ. Difference, State - Region Sum</b>		1,320,029							

We normalized regional results to reflect more statistically accurate statewide total participation, using an adjustment factor equal to the relative percent of participants in each region, based on the regional survey results. We then applied this percent to allocate the difference between the statewide estimate and the sum of regional estimates proportionally to each region.

Commercial and institutional participants from the survey of 112 commercial entities, extrapolated to additional commercial entities that did not respond to the survey using information on each business from web pages, and extrapolating by activity (rental, instruction, guided trips) and region. (See Appendix D).

**Club Participation Calculations (2006)**

Club Type	Participants	Average Days	Total Days
Rowing	5,000	100	500,000
Dragon Boat	3,000	100	300,000
Outrigger Canoe	3,000	100	300,000
Yacht/Sailing	22,000	35	770,000
<b>Totals</b>	<b>33,000</b>		<b>1,870,000</b>

Club participants of 33,000 and regional allocations based on results of interviews with boating organizations, and club member participation in the active-user Internet survey. Club participation estimates are for rowing (5,000), outrigger canoe (3,000), dragon boat (3,000), and yacht club learn-to-sail and race programs (22,000). Club participation days of 1,870,000 are based on average of 100 days for rowing, outrigger, and dragon boat club participants, and 35 days per year for sailing participants (based on sail boat owners in statewide survey).



## B. Statewide and Regional Random Surveys

### Exhibit B.2

#### Number of Boats, Households, and Participants Based on Statewide and Regional Random Telephone Survey of California Households (2006) (continued)

Page 4 of 7

#### Number of Total Boats by Boat Type and Kayak Subtype Calculated Based on Distribution of 616 Boats Owned by 351 Completed Statewide Surveys in California (2006)

Boat Type	A. Number of Boats by Boat Type	B. Percent of Boats by Boat Type	C. Boats by Boat Type (B x D)
Canoe	69	11.20%	190,063
Kayak	194	31.49%	534,381
Inflatable*	257	41.72%	707,983
Small Sailboat**	15	2.43%	41,237
Rowing Boat	58	9.42%	159,856
Sailboard/Kiteboard	20	3.25%	55,152
Other	3	0.49%	8,315
<b>Total</b>	<b>616</b>	<b>100.00%</b>	<b>1,696,987</b>
<b>D. CA Total Owned NMBs</b>	<b>1,696,987</b>		

\* For purposes of this study, the "inflatable" category includes inflatable rafts, catarafts, and transoms. Inflatable kayaks are included in the "kayak" category.

\*\* Many boaters consider any sailboat that they store at home, and load on their car, a "small sailboat", even if the sailboat is longer than 8 feet in length. This estimate of small sailboats includes a significant number of these larger small sailboats.

Kayak Subtypes	E. Number of Boats by Kayak Type	F. Percent of Kayaks by Kayak Type	G. Kayaks by Kayak Type (F x H)
Recreational Kayak	86	44.33%	236,891
Inflatable Kayak*	27	13.92%	74,386
Whitewater Kayak	20	10.31%	55,095
Sea/Touring Kayak	48	24.74%	132,206
Other Kayaks	13	6.70%	35,803
<b>Total</b>	<b>194</b>	<b>100.00%</b>	<b>534,381</b>
<b>H. Total Kayaks (from above)</b>		<b>534,381</b>	

\* There is some ambiguity within kayak definitions, as inflatable kayaks may be used for recreational paddling, touring, and whitewater paddling.

#### Total Number of Non-Motorized Boats by Boat Type – Households, Commercial and Institutional, and Clubs in California (2006)

Boat Type	C. Total Boats by Boat Type	I. Commercial/ Institutional Boats	J. Club Boats	K. Total Boats by Boat Type (C+I+J)	Percent of Boats
Canoe	190,063	942	500	191,505	11.17%
Kayak	534,381	8,870		543,251	31.68%
Inflatable	707,983	3,526		711,509	41.49%
Small Sailboat	41,237	433	1,100	42,770	2.49%
Rowing Boat	159,856	279	600	160,735	9.38%
Sailboard/Kiteboard	55,152	817		55,969	3.26%
Other	8,315	195	500	9,010	0.53%
<b>Total</b>	<b>1,696,987</b>	<b>15,062</b>	<b>2,700</b>	<b>1,714,749</b>	<b>100.00%</b>

Kayak Subtypes	G. Total Kayaks by Kayak Type	L. Commercial/ Institutional Kayaks	M. Total Kayaks by Kayak Type (G+L)	Percent of Kayaks
Recreational Kayak	236,891	5,102	241,993	44.55%
Inflatable Kayak	74,386	1,175	75,561	13.91%
Whitewater Kayak	55,095	450	55,545	10.22%
Sea/Touring Kayak	132,206	1,864	134,070	24.68%
Other Kayaks	35,803	279	36,082	6.64%
<b>Total</b>	<b>534,381</b>	<b>8,870</b>	<b>543,251</b>	<b>100.00%</b>

Commercial and institutional boats based on results of survey of 112 commercial entities, extrapolated based on boat type to additional entities that did not respond to the survey. Club boats based on interviews with club organizers and organization web pages.

**Exhibit B.2**

**Number of Boats, Households, and Participants Based on Statewide and Regional Random Telephone Survey of California Households (2006) (continued)**

**Number of Boats by Utilization Level, Boat Type and Kayak Subtype Calculated Based on Distribution of 616 Boats Owned by 351 Completed Statewide Surveys in California (2006)**

Boat Type	A. Number of Boats by Boat Type	B. Percent of Boats by Boat Type	C. Boats by Boat Type (B x D)
a. Boats Utilized 5 Days or More per Year			
1. Canoe	45	7.30%	123,880
2. Kayak	171	27.76%	471,084
3. Inflatable*	151	24.51%	415,931
4. Small Sailboat**	7	1.14%	19,345
5. Rowing Boat	34	5.52%	93,674
6. Sailboard/Kiteboard	16	2.60%	44,122
7. Other	3	0.49%	8,315
b. Boats Utilized 1 to 4 Days per Year	109	17.69%	300,197
c. Boats Not Utilized Within Last 5 Years	80	12.99%	220,439
<b>Total</b>	<b>616</b>	<b>100.00%</b>	<b>1,696,987</b>
<b>D. CA Total Owned NMBs</b>	1,696,987		

\* For purposes of this study, the "inflatable" category includes inflatable rafts, catarafts, and transoms. Inflatable kayaks are included in the "kayak" category.

\*\* Many boaters consider any sailboat that they store at home, and load on their car, as a "small sailboat", even if the sailboat is longer than 8 feet in length. This estimate of small sailboats includes a significant number of these longer small sailboats.

**Estimated Number of Kayaks Utilized Five Days or More per Year, by Kayak Type in California (2006)**

Kayak Subtypes	E. Number of Boats by Kayak Type	F. Percent of Kayaks by Kayak Type	G. Kayaks by Kayak Type (F x H)
1. Recreational Kayak	74	43.27%	203,838
2. Sea/Touring Kayak	44	25.73%	121,210
3. Inflatable Kayak*	25	14.62%	68,872
4. Whitewater Kayak	18	10.53%	49,605
5. Other Kayaks	10	5.85%	27,559
<b>Total</b>	<b>171</b>	<b>100.00%</b>	<b>471,084</b>
<b>H. Total Kayaks (from above)</b>	471,084		

\* There is some ambiguity within kayak definitions, as inflatable kayaks may be used for recreational paddling, touring, and whitewater paddling.

**Total Number of Non-Motorized Boats by Utilization Level and Boat Type - Households, Commercial and Institutional, and Clubs in California (2006)**

Boat Type	C. Total Boats by Boat Type	I. Commercial/ Institutional Boats	J. Club Boats	K. Total Boats by Boat Type (C + I + J)	Percent of Boats
a. Boats Utilized 5 Days or More per Year					
1. Canoe	123,880	942	500	125,322	7.3%
2. Kayak	471,084	8,870		479,954	28.0%
3. Inflatable*	415,931	3,526		419,457	24.5%
4. Small Sailboat**	19,345	433	1,100	20,878	1.2%
5. Rowing Boat	93,674	279	600	94,553	5.5%
6. Sailboard/Kiteboard	44,122	817		44,939	2.6%
7. Other	8,315	195	500	9,010	0.5%
b. Boats Utilized 1 to 4 Days per Year	300,197			300,197	17.5%
c. Boats Not Utilized Within Last 5 Years	220,439			220,439	12.9%
<b>Total</b>	<b>1,696,987</b>	<b>15,062</b>	<b>2,700</b>	<b>1,714,749</b>	<b>100.0%</b>

\* For purposes of this study, the "inflatable" category includes inflatable rafts, catarafts, and transoms. Inflatable kayaks are included in the "kayak" category.

\*\* Many boaters consider any sailboat that they store at home, and load on their car, as a "small sailboat", even if the sailboat is longer than 8 feet in length. This estimate of small sailboats includes a significant number of these longer small sailboats.

**Estimated Number of Kayaks Utilized Five Days or More per Year, by Kayak Type in California (2006)**

Kayak Subtypes	G. Total Kayaks by Kayak Type	L. Commercial/ Institutional Kayaks	M. Total Kayaks by Kayak Type (G + L)	Percent of Kayaks
1. Recreational Kayak	203,838	5,102	208,940	43.53%
2. Sea/Touring Kayak	121,210	1,864	123,074	25.65%
3. Inflatable Kayak*	68,872	1,175	70,047	14.59%
4. Whitewater Kayak	49,605	450	50,055	10.43%
5. Other Kayaks	27,559	279	27,838	5.80%
<b>Total</b>	<b>471,084</b>	<b>8,870</b>	<b>479,954</b>	<b>100.00%</b>

\* There is some ambiguity within kayak definitions, as inflatable kayaks may be used for recreational paddling, touring, and whitewater paddling.

Commercial and institutional boats based on survey of 112 commercial entities, extrapolated based on boat type to additional entities that did not respond to the survey. Club boats based on interviews with club organizers and organization web pages.

## B. Statewide and Regional Random Surveys

### Exhibit B.2

#### Number of Boats, Households, and Participants Based on Statewide and Regional Random Telephone Survey of California Households (2006) (continued)

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#### Total Current California Non-Motorized Boating Participants, by Utilization Level and Boat Type – NMB Owners, Commercial and Institutional Participants, and Club Participants (2006)

Boat Type	C. Boats by Boat Type (Utilized Boats Only)	N. Percent of Utilized Boats	O. Total Owning Participants* (N x S)	P. Commercial/ Institutional Participants	Q. Club Participants	R. Total Participants (O + P + Q)	Percent of Total Participants	Percent of Population 12 and Over Participating (R/T)
a. Boats Utilized 5 Days or More per Year								
1. Canoe	123,880	8.4%	161,070	60,085	3,000	224,155	9.0%	0.7%
2. Kayak	471,084	31.9%	611,683	164,525		776,208	31.2%	2.6%
3. Inflatable	415,931	28.2%	540,736	272,765		813,501	32.7%	2.7%
4. Small Sailboat	19,345	1.3%	24,928	8,209	22,000	55,137	2.2%	0.2%
5. Rowing Boat	93,674	6.3%	120,803	6,164	5,000	131,967	5.3%	0.4%
6. Sailboard/ Kiteboard	44,122	3.0%	57,525	14,356		71,881	2.9%	0.2%
7. Other	8,315	0.6%	11,505	13,718	3,000	28,223	1.1%	0.1%
8. Total Boats Utilized 5 Days or More per Year	1,176,351	79.7%	1,528,250			2,101,072	84.4%	6.9%
b. Boats Utilized 1 to 4 Days per Year	300,197	20.3%	389,253			389,253	15.6%	1.3%
Total	1,476,548	100.0%	1,917,503	539,822	33,000	2,490,325	100.0%	8.2%
<b>S. California Total Owning Participants</b>	<b>1,917,503</b>							
<b>T. California 2006 Population 12 and Over</b>	<b>30,202,535</b>							

\* Total participants by boat type were adjusted to match the total number of participants overall. As a result, these estimates assume that each participant utilized only one boat type. Because some participants used multiple boat types, these are conservative estimates of boat type participation.

**Exhibit B.2**

**Number of Boats, Households, and Participants Based on Statewide and Regional Random Telephone Survey of California Households (2006) (continued)**

**Total Current California Non-Motorized Participation Days, by Utilization Level and Boat Type - NMB Owners, Commercial and Institutional Participants, and Club Participants (2006)**

Boat Type	U. Participation Days per Participant	V. Unadjusted Participation Days (O x U)	W. Percent of Participation Days	X. Boat Type Participant Days Adjustment (W x AD)	Y. Adjusted Utilizing Owner Participation Days (V + X)	Z. Club Participation Days	AA. Commercial/ Institutional Participation Days	AB. Total Participation Days (Y + Z + AA)	Percent of Total
a. Boats Utilized 5 Days or More per Year									
1. Canoe	31.50	5,073,705	10.22%	(381,960)	4,691,745	300,000	101,706	5,093,451	10.5%
2. Kayak	37.63	23,017,631	46.37%	(1,733,021)	21,284,610		231,745	21,516,355	44.4%
3. Inflatable	26.84	14,513,354	29.24%	(1,092,809)	13,420,545		337,083	13,757,628	28.3%
4. Small Sailboat	51.83	1,292,018	2.60%	(97,172)	1,194,846	770,000	10,171	1,975,017	4.1%
5. Rowing Boat	30.13	3,639,794	7.33%	(273,950)	3,365,844	500,000	7,265	3,873,109	8.0%
6. Sailboard/ Kiteboard	10.67	613,792	1.24%	(46,342)	567,450		18,888	586,338	1.2%
7. Other	46.80	538,434	1.08%	(40,364)	498,070	300,000	19,614	817,684	1.7%
8. Total Boats Utilized 5 Days or More per Year		48,688,728	98.08%	(3,665,618)	45,023,110	1,870,000	726,472	47,619,582	98.2%
b. Boats Utilized 1 to 4 Days per Year	2.45	953,670	1.92%	(71,758)	881,912			881,912	1.8%
Total		49,642,398	100.00%	(3,737,376)	45,905,022	1,870,000	726,472	48,501,494	100.0%
<b>AC. California Total Owning Participant Days</b>		<b>45,905,022</b>							
<b>AD. Difference, Total - Boat Type Sum</b>		<b>(3,737,376)</b>							

**Exhibit B.3**  
**Summary of Statewide Random Survey Respondents (2006) (n=351)**

Boater Gender	
Males	58%
Females	42%
<b>100%</b>	

Boater Marital Status	
Married	69%
Single	29%
NA	2%
<b>100%</b>	

Used a Boat in Last 5 Years?	
Yes	82%
No	18%

Education	Percent
High School	16%
Some College	28%
BA or Equivalent	30%
Advanced Degree	24%
NA	2%
<b>100%</b>	

Number of Boats Owned	
1	61%
2	22%
3	10%
4	3%
5	2%
6	1%
7 to 11	1%
<b>100%</b>	
<b>Average</b>	<b>1.75 boats</b>
<b>Median</b>	<b>1 boat</b>

Years Owned Most-Used Non-Motorized Boat	
1 to 2	21%
3 to 4	22%
5 to 6	17%
7 to 8	11%
9 to 10	13%
11 to 14	4%
15 to 20	7%
Over 20 years	5%
<b>(n=288)</b>	<b>100%</b>

Number of Boaters in Household
<b>2.4</b>

Age	Percent
Under 18	1%
18 to 24	5%
25 to 34	8%
35 to 44	18%
45 to 55	29%
56 to 65	23%
Over 65	15%
NA	1%
<b>100%</b>	

Ethnicity	Percent
Caucasian	84%
Asian	1%
Black	1%
Latin	6%
Native American	1%
Other	3%
NA	4%
<b>100%</b>	

Years Involved in Non-Motorized Boating	
Less than 5 years	14%
5 to 9 years	13%
10 to 14 years	11%
15 to 20 years	15%
Over 20 years	46%
NA	1%
<b>100%</b>	

Days per Year of Non-Motorized Boating	
1 to 2 days	15%
3 to 4 days	14%
5 to 6 days	10%
7 to 8 days	8%
9 to 10 days	9%
11 to 15 days	10%
16 to 20 days	6%
21 to 30 days	11%
31 to 40 days	2%
41 to 100 days	12%
101 to 250 days	4%
<b>(n=288)</b>	<b>100%</b>
<b>Average</b>	<b>24 days</b>
<b>Median</b>	<b>10 days</b>

Reasons for Participating in Non-Motorized Boating	
Recreation	46%
Leisure and relaxation	40%
To enjoy nature	38%
For fitness	24%
Participate in another activity*	24%
As a family activity	23%
Physical/mental challenge	14%
As a social activity	11%
Convenient and easy	11%
Non-polluting and no gasoline	10%
Quiet	8%
Less expensive	7%
To reach other boat	1%
For competition	0.7%
<b>(n=288)</b>	
<b>Sums to over 100 percent because respondents identified multiple reasons.</b>	

Household Income	Percent
Under \$25,000	6%
\$25,000 up to \$50,000	15%
Over \$50,000 up to \$100,000	36%
Over \$100,000 up to \$200,000	24%
Over \$200,000	7%
NA	12%
<b>100%</b>	

Most Used Non-Motorized Boat Type (Regularly Used Boats Only)	
Inflatable raft	33.0%
Recreational kayak	17.0%
Sea or touring kayak	9.2%
Hard-shell canoe	8.2%
Rowing boat or shell	7.3%
Inflatable kayak	5.3%
Other inflatable	3.9%
Small sailboat	2.9%
Whitewater kayak	2.9%
Inflatable transom boat	2.4%
Other kayaks	2.4%
Other boats	1.5%
Other canoes	1.5%
Sailboard or kiteboard	1.5%
Paddleboat	1.0%
<b>(n=288)</b>	<b>100.0%</b>
<b>(All kayaks = 36.8 percent)</b>	

\* Fishing, hunting, scuba diving, snorkeling, photography, camping, bird-watching, etc.