



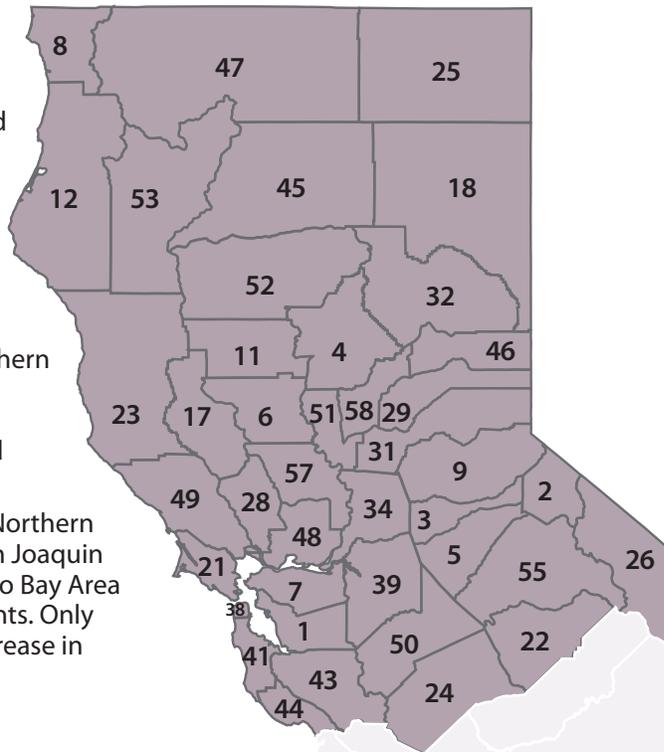
2016 California Recreational Boating Accident General Statistics for Northern California

In 2016, there were 266 boating accidents in Northern California that resulted in 150 injuries and 36 fatalities.

These accidents represented 45% of all accidents statewide, 56% of injuries and 72% of fatalities.

Compared with 2015 Northern California accident totals, accidents increased 20%, injuries increased 35% and fatalities increased 20%.

Northern Coastal Waters, Northern Lakes, the Sacramento-San Joaquin Delta and the San Francisco Bay Area all saw increases in accidents. Only Northern Rivers saw a decrease in accidents from 2015-2016.



Northern California Boating Accidents by Location 2015–2016

Location	2015			2016		
	Accidents	Injuries	Fatalities	Accidents	Injuries	Fatalities
Coastal Waters	15	6	9	27	12	2
Northern Lakes	105	57	8	129	75	23
Northern Rivers	29	24	6	25	12	7
Delta	54	21	4	59	32	2
San Francisco Bay Area	18	3	3	26	19	2
Totals	221	111	30	266	150	36

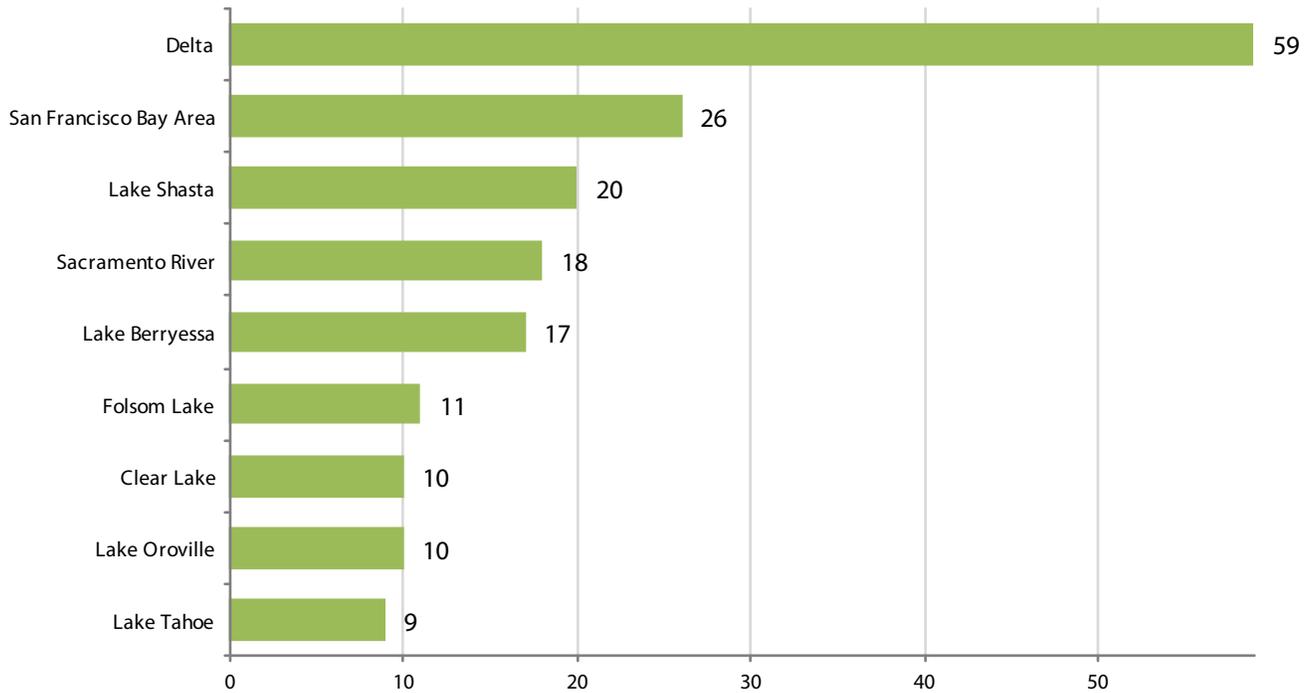
County Number	County
1	Alameda
2	Alpine
3	Amador
4	Butte
5	Calaveras
6	Colusa
7	Contra Costa
8	Del Norte
9	El Dorado
11	Glenn
12	Humboldt
17	Lake
18	Lassen
21	Marin
22	Mariposa
23	Mendocino
24	Merced
25	Modoc
26	Mono
27	Monterey
28	Napa
29	Nevada
31	Placer
32	Plumas
34	Sacramento
38	San Francisco
39	San Joaquin
41	San Mateo
43	Santa Clara
44	Santa Cruz
45	Shasta
46	Sierra
47	Siskiyou
48	Solano
49	Sonoma
50	Stanislaus
51	Sutter
52	Tehama
53	Trinity
55	Tuolumne
57	Yolo
58	Yuba



NORTHERN CALIFORNIA

2016 Top Northern California Boating Accident Areas

(Total Accidents 180)



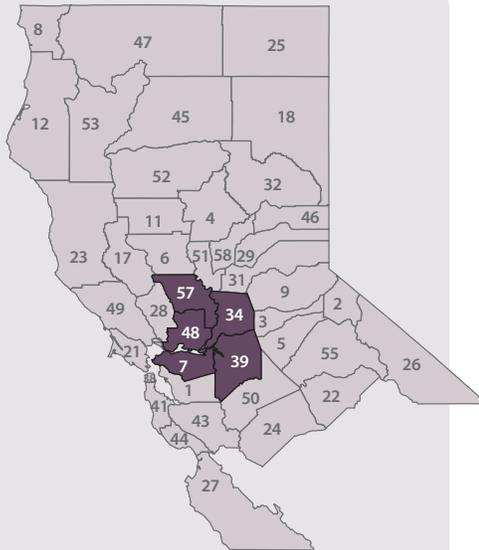
California Delta

Summary Statistics

The Sacramento-San Joaquin Delta had 59 accidents, 32 injuries and 2 fatalities in 2016.

The Delta accounted for 22% of accidents, 21% of injuries and 6% of fatalities in Northern California in 2016.

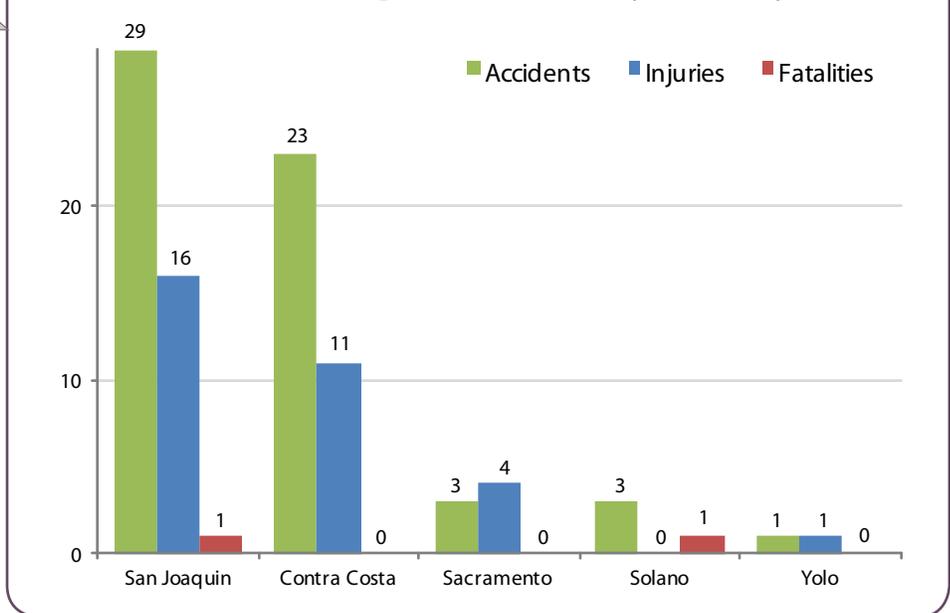
This accounted for 10% of all accidents, 12% of all injuries and 4% of all fatalities in California.



Includes accident statistics for the following counties:

County Number	County
7	Contra Costa
34	Sacramento
39	San Joaquin
48	Solano
57	Yolo

2016 Delta Boating Accidents by County



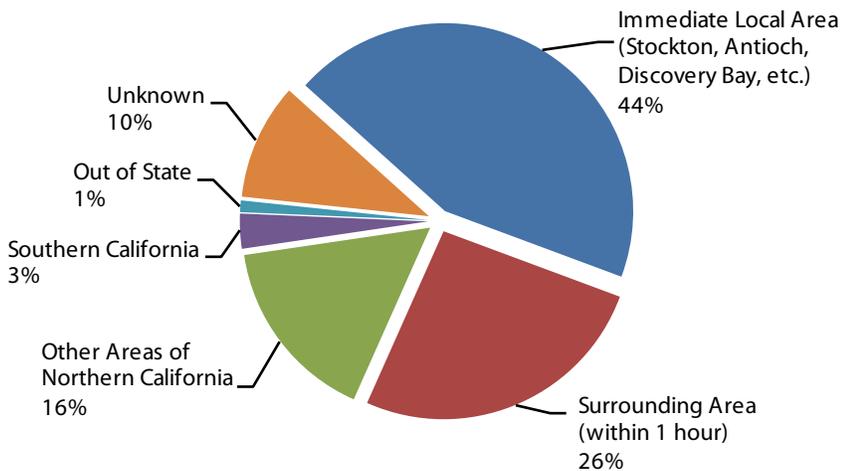
Delta County	2012			2013			2014			2015			2016			5-Year Total		
	Acc.	Inj.	Fat.	Acc.	Inj.	Fatalities												
San Joaquin County	32	11	5	27	13	0	26	14	1	25	13	2	29	16	1	139	67	9
Contra Costa County	19	12	0	17	2	2	9	5	1	17	8	1	23	11	0	85	38	4
Sacramento County	6	4	0	7	3	3	2	2	0	3	0	0	3	4	0	21	13	3
Solano County	9	7	0	3	4	0	2	2	0	8	0	0	3	0	1	25	13	1
Yolo County	0	0	0	0	0	0	1	8	0	1	0	1	1	1	0	3	9	1
Total Delta Combined	66	34	5	54	22	5	40	31	2	54	21	4	59	32	2	273	140	18



Noteworthy Accident Statistics

Delta	Delta	Northern California	California
Percent of Accidents Involving...			
Collisions with Other Vessels	22%	27%	36%
Flooding/ Swamping	19%	9%	14%
Grounding	20%	16%	14%
Towing Sport Accidents	5%	9%	7%
Operator Inattention	24%	33%	32%
Excessive Speed	29%	17%	15%
Open Motorboats	58%	48%	45%
Percent of Accidents Occurring on...			
Holiday Weekends	24%	21%	15%
Percent of Vessels that are...			
Operated by Owner	47%	42%	36%

2016 Residence of Operators/Owners Involved in Accidents in the Delta



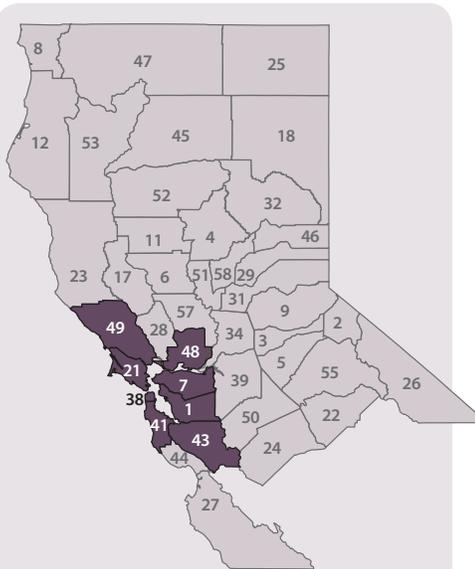
San Francisco Bay Area

Summary Statistics

The San Francisco Bay Area had 26 accidents, 19 injuries and 2 fatalities in 2016.

This accounted for 4% of all accidents, 7% of all injuries and 4% of all fatalities in California.

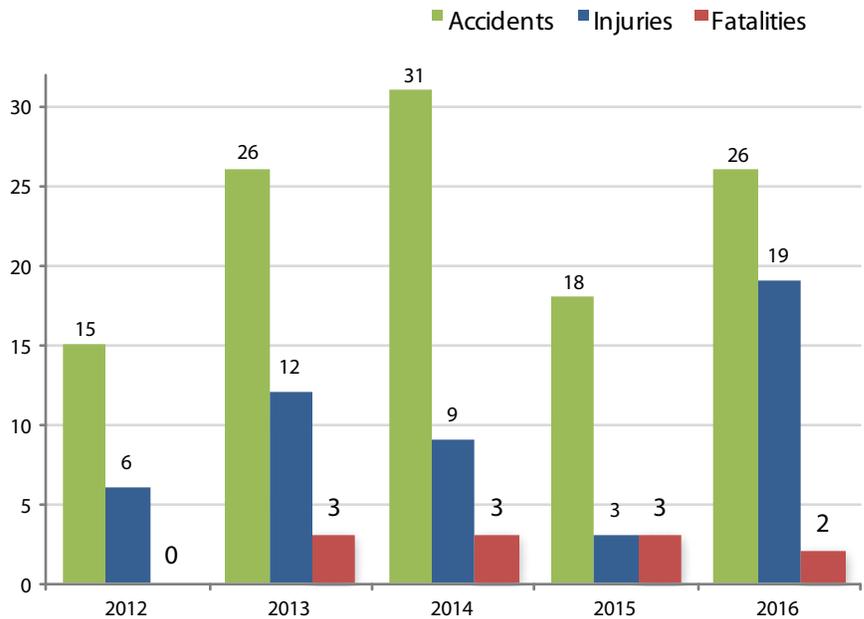
The San Francisco Bay Area accounted for 10% of accidents, 13% of injuries and 6% of fatalities in Northern California in 2016.



Includes accident statistics for the following counties:

County Number	County
1	Alameda
7	Contra Costa
21	Marin
38	San Francisco
41	San Mateo
43	Santa Clara
48	Solano
49	Sonoma

2012-2016 San Francisco Bay Area Boating Accidents



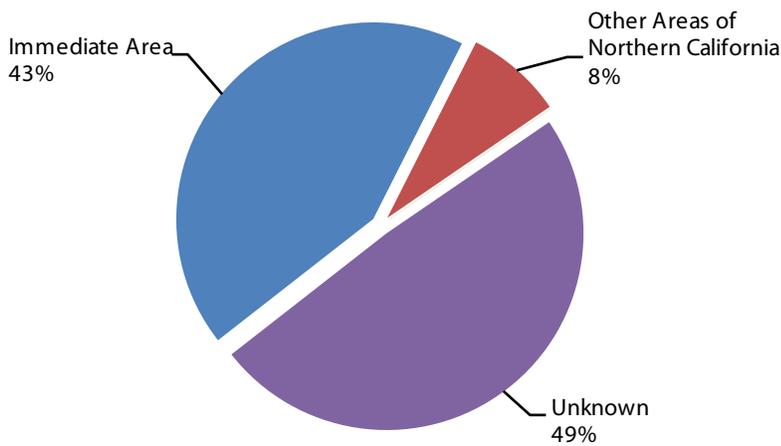
San Francisco Bay Area County	2012			2013			2014			2015			2016			5-Year Total		
	Acc	Inj	Fat	Acc	Inj	Fat	Acc	Inj	Fat	Acc	Inj	Fat	Acc	Inj	Fat	Acc	Inj	Fat
Alameda	4	2	0	6	3	0	2	0	0	7	0	0	7	1	0	26	6	0
Contra Costa	0	0	0	2	1	0	2	3	0	0	0	0	1	0	0	5	4	0
Marin	1	0	0	7	3	2	6	1	1	4	0	1	3	1	0	21	5	4
San Francisco	6	2	0	7	3	0	15	4	1	6	2	0	8	15	0	42	26	1
San Mateo	1	1	0	3	2	0	3	1	1	1	1	2	4	0	2	12	5	5
Santa Clara	1	1	0	0	0	0	2	0	0	0	0	0	0	0	0	3	1	0
Solano	2	0	0	1	0	1	1	0	0	0	0	0	2	2	0	6	2	1
Sonoma	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0
Total SF Bay Combined	15	6	0	26	12	3	31	9	3	18	3	3	26	19	2	116	49	11



Noteworthy Accident Statistics

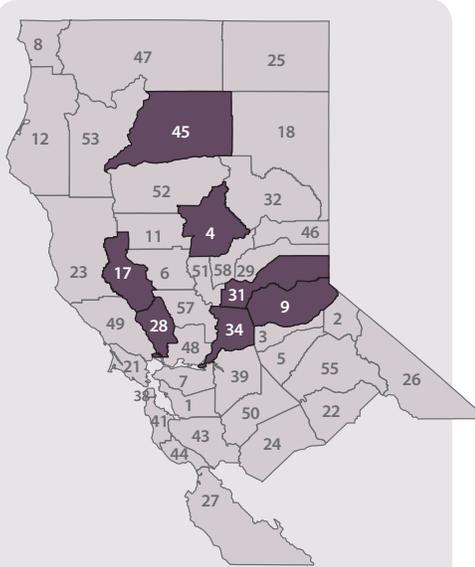
San Francisco	San Francisco Bay Area	Northern California	California
Percent of Accidents Involving...			
Collision with Other Vessels	35%	27%	36%
Flooding/ Swamping	8%	8%	14%
Sinking	12%	12%	11%
Operator Inexperience	12%	21%	25%
Auxiliary Sailboats	42%	8%	16%
Personal Watercraft	0%	20%	17%
Percent of Operators that are...			
Operating Borrowed Vessels	14%	24%	22%
Operating Rented Vessels	0%	8%	10%
Over 40 Years Old	62%	54%	55%

2016 Residence of Operators/Owners Involved in Accidents in the San Francisco Bay Area



Northern Lakes

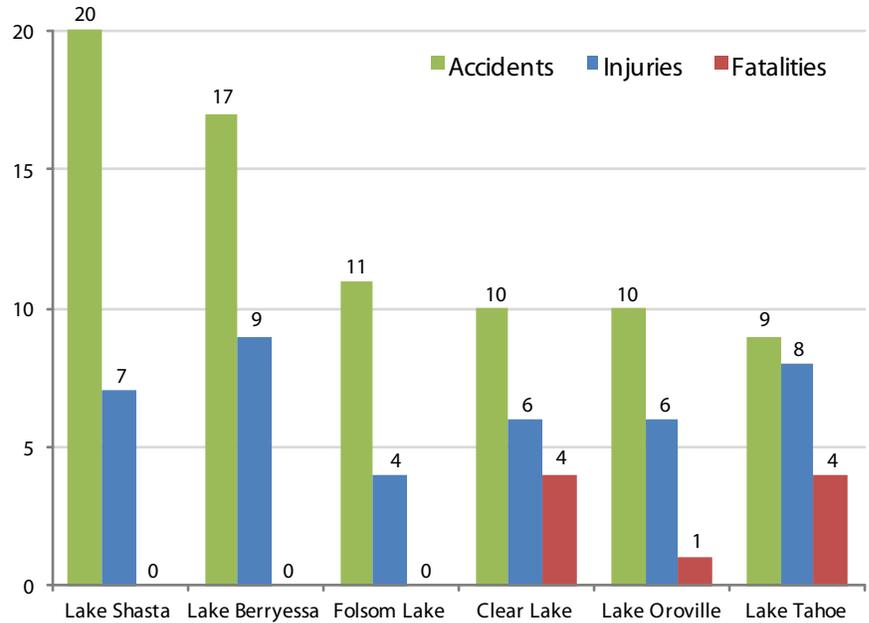
Summary Statistics



Includes accident statistics for the following counties:

County Number	County
4	Butte
9	El Dorado
17	Lake
28	Napa
31	Placer
34	Sacramento
45	Shasta

2016 Top Northern Lakes Boating Accidents by Location



2016 Residence of Operators Involved in Accidents

Location	Lake Shasta	Lake Berryessa	Folsom Lake	Clear Lake	Lake Oroville	Lake Tahoe
Immediate Local Area	7%	0%	7%	45%	14%	10%
Surrounding Area (within 1 hour)	24%	45%	71%	0%	21%	20%
Other areas of Northern California	45%	41%	7%	45%	43%	30%
Southern California	0%	0%	7%	0%	0%	10%
Out of State/Country	21%	5%	0%	0%	7%	20%
Unknown	3%	9%	7%	9%	14%	10%



Noteworthy Accident Statistics

Lake Shasta	Lake Shasta	Northern California	California
Percent of Accidents Involving....			
Collision with Vessel	35%	27%	36%
Towing Sport Accidents	15%	11%	7%
Houseboats	35%	5%	2%
Open Motorboats	75%	48%	45%
Operator Inexperience	30%	21%	25%
Percent of Operators that are...			
Operating Rented Vessels	21%	8%	10%
Percent of Accidents Occurring on ...			
Weekends	35%	57%	54%

Lake Shasta is in Shasta County and had 20 accidents, 7 injuries and 0 fatalities in 2016.

This accounted for 3% of accidents, 3% of injuries and 0% of all fatalities in California.

Lake Shasta accounted for 8% of accidents, 5% of injuries and 0% of fatalities in Northern California.

Lake Berryessa	Lake Berryessa	Northern California	California
Percent of Accidents Involving....			
Collision with Vessel	35%	27%	36%
Towing Sport Accidents	24%	11%	7%
Personal Watercraft	59%	20%	17%
Operator Inexperience	35%	21%	25%
Percent of Accidents Occurring on ...			
Holiday Weekends	24%	21%	15%
Percent of Operators that are...			
Operating Borrowed Vessels	39%	24%	22%
40 Years Old and Under	74%	46%	45%

Lake Berryessa is in Napa County and had 17 accidents, 9 injuries and 0 fatalities in 2016.

This accounted for 3% of accidents, 3% of injuries and 0% of all fatalities in California.

Lake Berryessa accounted for 6% of accidents, 6% of injuries and 0% of fatalities in Northern California.

Northern Lakes

Folsom Lake	Folsom Lake	Northern California	California
Percent of Accidents Involving....			
Collision with Vessel	27%	27%	36%
Towing Sport Accidents	18%	11%	7%
Personal Watercraft	45%	20%	17%
Open Motorboats	64%	48%	45%
Operator Inattention	55%	33%	32%
Percent of Operators that are...			
Operating Rented Vessels	29%	8%	10%
Percent of Accidents Occurring on ...			
Weekends	45%	21%	15%
Operating Rented Vessels	31%	11%	11%

Folsom Lake is in El Dorado, Placer and Sacramento Counties and had 11 accidents, 4 injuries and 0 fatalities in 2016.

This accounted for 2% of accidents, 2% of injuries and 0% of all fatalities in California.

Folsom Lake accounted for 4% of accidents, 3% of injuries and 0% of fatalities in Northern California.

Clear Lake	Clear Lake	Northern California	California
Percent of Accidents Involving....			
Collision with Vessel	10%	27%	36%
Falls Overboard	40%	11%	9%
Open Motorboats	70%	48%	45%
Operator Inattention	10%	33%	32%
Percent of Accidents Occurring on ...			
Weekends	50%	57%	54%
Percent of Vessels that are...			
Operated by Owner	73%	43%	36%
Percent of Operators that are...			
Over 40 Years Old	89%	54%	55%

Clear Lake is in Lake County and had 10 accidents, 6 injuries and 4 fatalities in 2016.

This accounted for 2% of accidents, 2% of injuries and 8% of all fatalities in California.

Clear Lake accounted for 4% of accidents, 4% of injuries and 11% of fatalities in Northern California.



Northern Lakes

Lake Oroville	Lake Oroville	Northern California	California
Percent of Accidents Involving...			
Collision with Vessel	20%	27%	36%
Falls Overboard	30%	11%	9%
Open Motorboats	80%	48%	45%
Towing Sport Accidents	20%	11%	7%
Percent of Accidents Occurring on ...			
Weekends	90%	57%	54%
Percent of Vessels that are...			
Operated by Owner	57%	43%	36%
Percent of Operators that are...			
Over 40 Years Old	73%	54%	55%

Lake Oroville is in Butte County and had 10 accidents, 6 injuries and 1 fatalities in 2016.

This accounted for 2% of accidents, 2% of injuries and 2% of all fatalities in California.

Lake Oroville accounted for 4% of accidents, 4% of injuries and 3% of fatalities in Northern California.

Lake Tahoe	Lake Tahoe	Northern California	California
Percent of Accidents Involving...			
Collision with Vessel	11%	27%	36%
Towing Sport Accidents	33%	11%	7%
Operator Inexperience	44%	21%	25%
Personal Watercraft	44%	20%	17%
Percent of Accidents Occurring on..			
Holiday Weekends	11%	21%	15%
Percent of Operators that are...			
40 Years Old and Under	80%	46%	45%
Operating Rented Vessels	40%	8%	10%

Lake Tahoe is in Placer and El Dorado Counties in California and Washoe and Douglas Counties in Nevada. It had 9 accidents, 8 injuries and 4 fatalities in 2016 on the California side.

This accounted for 2% of accidents, 3% of injuries and 8% of fatalities in California.

Lake Tahoe accounted for 3% of accidents, 5% of injuries and 11% of fatalities in Northern California.

NORTHERN CALIFORNIA



	California	Northern California	Delta	San Francisco Bay	Lake Shasta	Lake Berryessa	Folsom Lake	Clear Lake	Oroville	Lake Tahoe
Types - Percent of Accidents Involving...										
Collisions with Other Vessels	36%	27%	22%	35%	35%	35%	27%	10%	20%	11%
Capsizing	10%	13%	2%	23%	5%	0%	9%	30%	0%	11%
Flooding/ Swamping	14%	9%	19%	8%	5%	0%	18%	30%	20%	0%
Grounding	14%	16%	20%	15%	2%	24%	0%	10%	0%	0%
Falls Overboard	9%	11%	7%	4%	0%	6%	0%	40%	30%	11%
Sinking	11%	12%	17%	12%	5%	0%	9%	20%	10%	0%
Towing Sport Accidents	7%	11%	5%	0%	15%	24%	18%	10%	20%	33%
Causes - Percent of Accidents Involving...										
Operator Inattention	32%	33%	24%	27%	30%	35%	55%	10%	10%	11%
Operator Inexperience	25%	21%	20%	12%	30%	35%	35%	10%	0%	44%
Excessive Speed	15%	17%	29%	0%	10%	18%	35%	20%	0%	11%
Machinery/Equipment Failure	14%	12%	15%	12%	0%	27%	9%	30%	20%	0%
Hazardous Weather/ Water	11%	9%	6%	12%	15%	0%	9%	20%	0%	0%
Types of Vessels - Percent of Accidents Involving...										
Open Motorboats	45%	48%	58%	12%	75%	47%	64%	70%	80%	44%
Cabin Motorboats	21%	12%	20%	15%	0%	0%	0%	0%	0%	0%
Personal Watercraft	17%	20%	20%	0%	15%	59%	45%	0%	10%	44%
Auxiliary Sailboats	16%	8%	2%	42%	0%	0%	0%	20%	0%	0%
Houseboats	2%	5%	5%	4%	35%	0%	0%	0%	0%	0%
Ownership - Percent of Vessels...										
Operated by Owner	36%	43%	47%	38%	38%	22%	36%	73%	57%	0%
Borrowed	22%	24%	29%	14%	21%	39%	29%	9%	7%	30%
Rented	10%	8%	1%	0%	21%	26%	29%	0%	7%	40%
No Operator or Unknown	32%	25%	22%	49%	21%	13%	7%	18%	29%	30%
Operator Age - Percent of Operators Involved in Accidents (does not include unknowns)...										
Under 18 Years Old	4%	6%	4%	8%	5%	5%	23%	0%	0%	10%
40 Years Old and Under	45%	46%	47%	38%	36%	74%	62%	11%	27%	80%
Over 40 Years Old	55%	54%	53%	62%	64%	26%	38%	89%	73%	20%
Other Factors - Percent of Accidents Occurring On...										
Weekends	54%	57%	56%	46%	35%	71%	73%	50%	90%	44%
Holiday Weekends	15%	21%	24%	12%	15%	24%	45%	20%	40%	11%



NORTHERN CALIFORNIA