

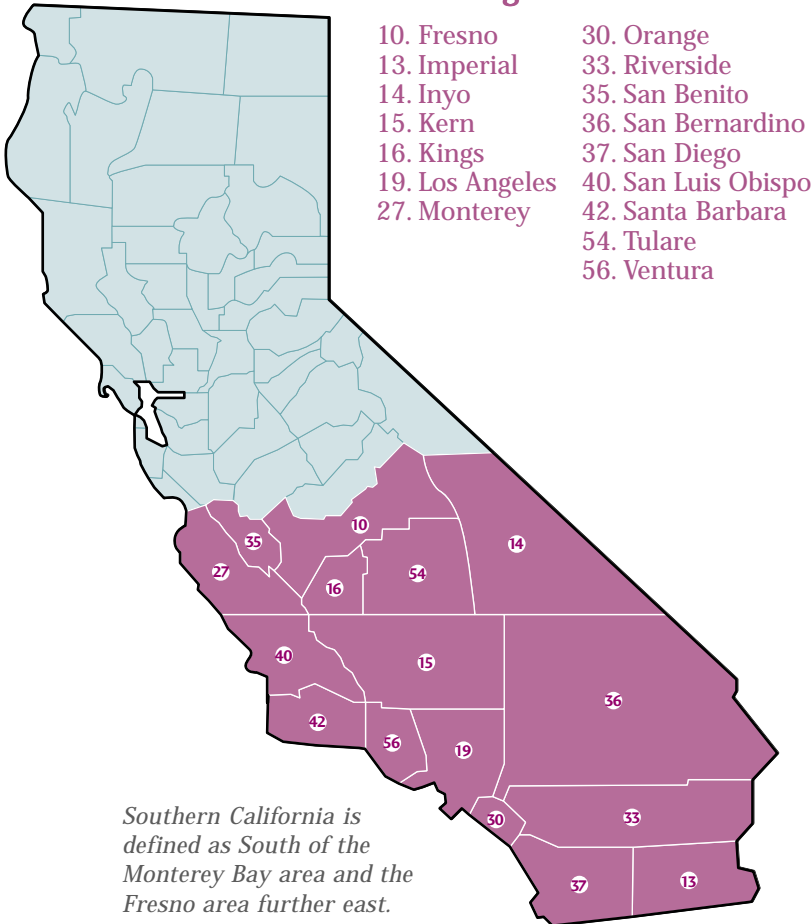


# SOUTHERN

# CALIFORNIA



### Includes accident statistics for the following Counties:



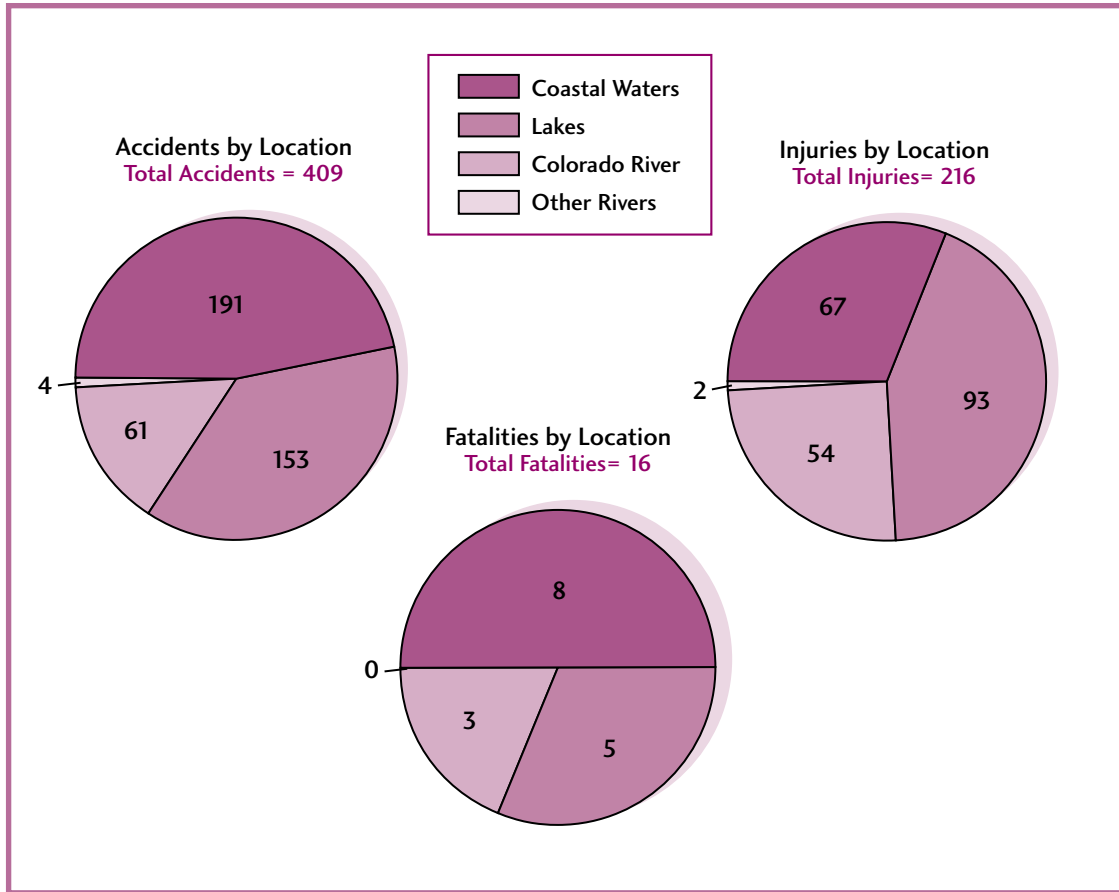
*Southern California is defined as South of the Monterey Bay area and the Fresno area further east.*

- ◆ Collision with another vessel was the most common type of accident, accounting for 43% of Southern California accidents, compared with 33% in Northern California and 38% statewide.
- ◆ Inexperience was a factor in 45% of all accidents in Southern California and was the most common cause of accidents.
- ◆ PWC were involved in 38% of all Southern California accidents, compared with 28% in Northern California and 32% statewide.
- ◆ Open motorboats were involved in 42% of all accidents in Southern California compared with 59% in Northern California and 51% statewide.
- ◆ Capsizing and falls overboard were the most common types of fatal boating accidents in Southern California, each accounting for 25% of fatal accidents.
- ◆ Open motorboats were involved in 56% of all fatal boating accidents in Southern California.
- ◆ 25% of Southern California boating fatalities occurred on the weekend, compared with 33% statewide.
- ◆ Of the victims who drowned in Southern California, 50% were not wearing a life jacket, compared with 80% statewide and 90% in Northern California.

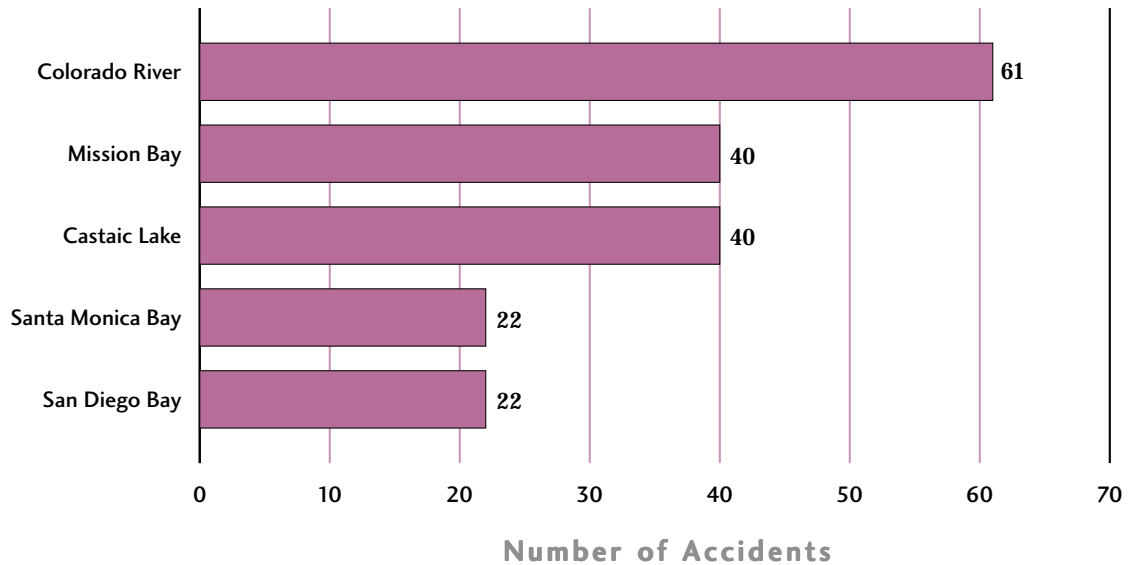
# ■ S O U T H E R N

# C A L I F O R N I A

## 2000 Southern California Boating Accidents by Location



## Top Five Southern California Boating Accident Areas



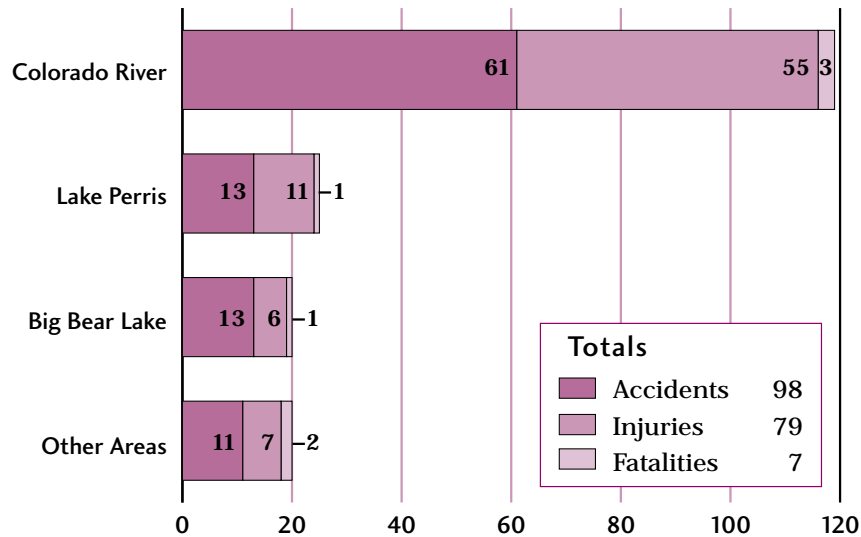


# INLAND

# EMPIRE

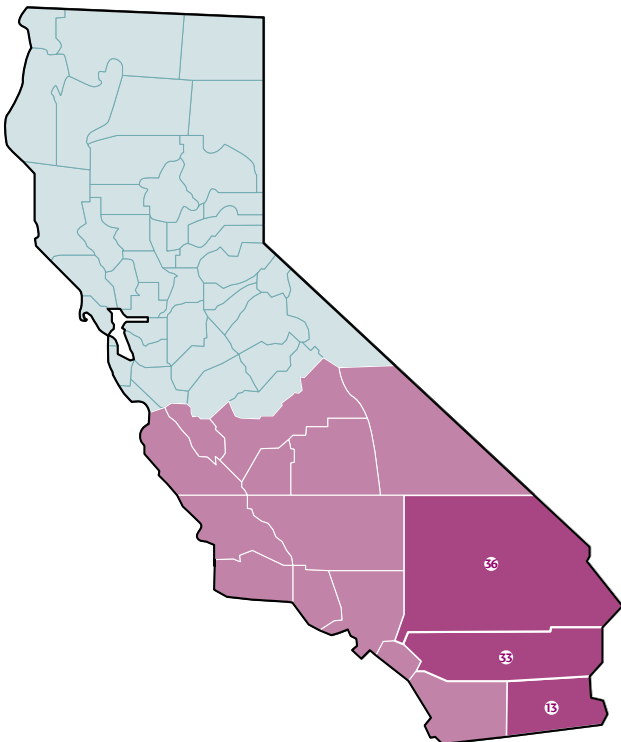
Accidents in the Inland Empire and surrounding areas accounted for nearly one quarter (24%) of accidents, 37% of injuries, and 44% of fatalities in Southern California.

## 2000 Inland Empire Boating Accidents by Location



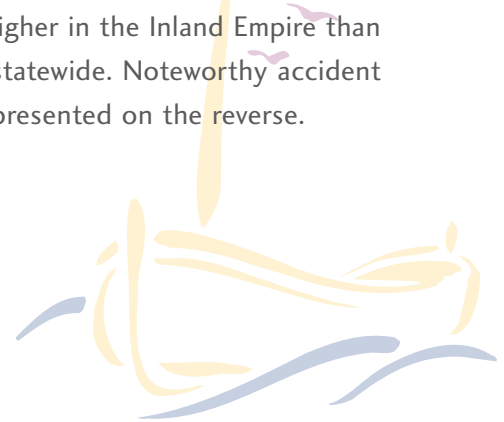
Includes accident statistics for the following Counties:

- 13. Imperial
- 33. Riverside
- 36. San Bernardino



Accidents in this region also represented 11% of accidents, 15% of injuries, and 14% of fatalities in California.

PWC-related-accidents and accidents involving collisions with other vessels were consistently higher in the Inland Empire than regionally or statewide. Noteworthy accident statistics are presented on the reverse.



# INLAND

# EMPERE

## Noteworthy Accident Statistics



The Colorado River area accounted for 15% of boating accidents, 25% of injuries, and 19% of fatalities in Southern

California (7% of accidents, 10% of injuries and 6% of fatalities in California).

|   | Colorado River | Southern California | California |
|---|----------------|---------------------|------------|
| <b>% of Accidents</b>                       |                |                     |            |
| Involving Collisions With Other Vessels     | 44%            | 43%                 | 38%        |
| Involving Grounding                         | 16%            | 10%                 | 10%        |
| Involving Excessive Speed                   | 36%            | 26%                 | 24%        |
| Involving Personal Watercraft               | 49%            | 38%                 | 32%        |
| <b>% of Operators Involved in Accidents</b> |                |                     |            |
| Under 18                                    | 13%            | 10%                 | 10%        |

Percentages of accidents involving PWC, excessive speed, collisions with other vessels and grounding exceeded statewide or regional totals.



Accidents on Lake Perris show a high percentage involving PWC and collisions. Additionally, the percentage of

accidents involving excessive speed, inattention, and accidents occurring on weekends and holiday weekends exceeded regional or statewide percentages.

|   | Lake Perris | Southern California | California |
|---|-------------|---------------------|------------|
| <b>% of Accidents</b>                   |             |                     |            |
| Involving Collisions With Other Vessels | 92%         | 43%                 | 38%        |
| Involving Excessive Speed               | 38%         | 26%                 | 24%        |
| Involving Operator Inattention          | 62%         | 33%                 | 32%        |
| Involving Personal Watercraft           | 92%         | 38%                 | 32%        |
| Occuring on Holiday Weekends            | 38%         | 21%                 | 20%        |
| Occuring on Weekends                    | 85%         | 61%                 | 59%        |

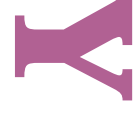
Accidents on Big Bear Lake reveal a number of similarities to accidents on Lake Perris.



|   | Big Bear Lake | Southern California | California |
|---|---------------|---------------------|------------|
| <b>% of Accidents</b>                   |               |                     |            |
| Involving Collisions With Other Vessels | 62%           | 43%                 | 38%        |
| Involving Operator Inattention          | 54%           | 33%                 | 32%        |
| Involving Personal Watercraft           | 54%           | 38%                 | 32%        |
| Occuring on Holiday Weekends            | 38%           | 21%                 | 20%        |
| Occuring on Weekends                    | 85%           | 61%                 | 59%        |

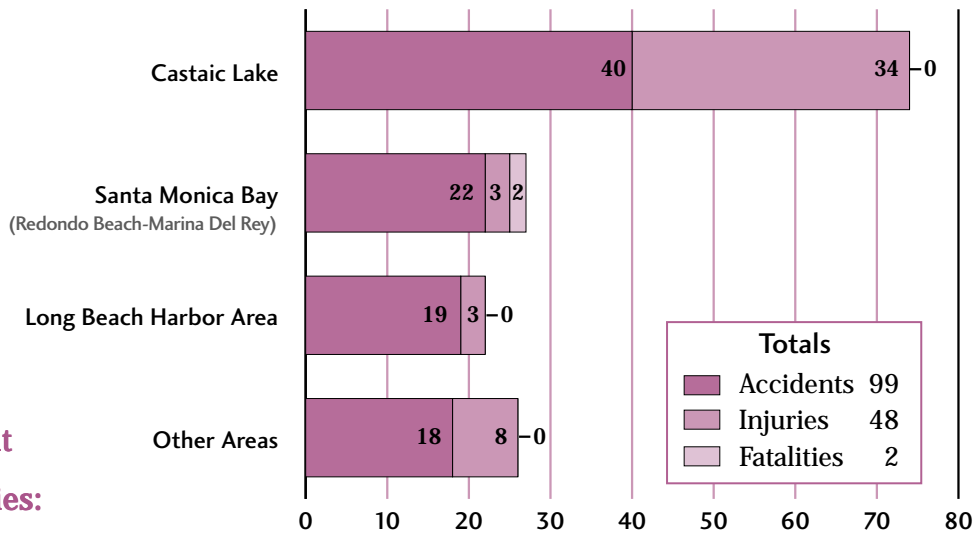


# LOS ANGELES



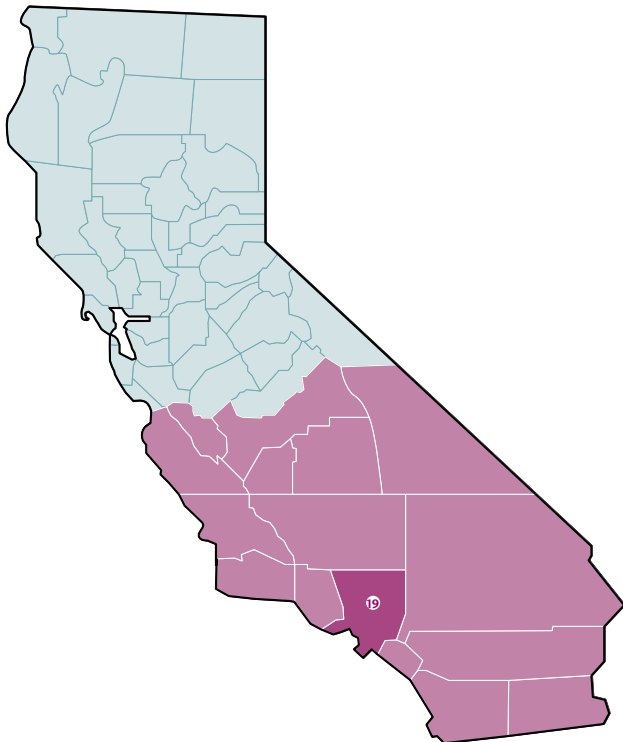
For the first time since 1996, Los Angeles County had more boating accidents than any other county in California, accounting for nearly one quarter of accidents in Southern California

## 2000 Los Angeles County Boating Accidents by Location



Includes accident statistics for the following Counties:

19. Los Angeles



Additionally, accidents in Los Angeles county accounted for 11% of all boating accidents, 9% of injuries, and 4% of fatalities in California.



# LOS ANGELES

# COMMUNITY

## Noteworthy Accident Statistics



|   | Castaic Lake | Southern California | California |
|---|--------------|---------------------|------------|
| <b>% of Accidents</b>                       |              |                     |            |
| Involving Falls Overboard                   | 20%          | 9%                  | 8%         |
| Involving Water Skiing                      | 15%          | 10%                 | 16%        |
| Involving Open Motorboats                   | 48%          | 42%                 | 51%        |
| Involving Personal Watercraft               | 48%          | 38%                 | 32%        |
| Involving Vessels Operated by Owner         | 80%          | 47%                 | 45%        |
| <b>% of Operators Involved in Accidents</b> |              |                     |            |
| 40 and Under                                | 93%          | 70%                 | 67%        |

Because Castaic Lake attracts many types of boating activity, accident trends were very consistent with regional and

statewide averages overall. Percentages of accidents involving PWC and accidents involving vessels operated by the owner were higher than regional or statewide percentages. Falls overboard were also more common. These accidents consisted mainly of PWC operators who fell overboard and were injured as they fell.



|   | Santa Monica Bay | Southern California | California |
|---|------------------|---------------------|------------|
| <b>% of Accidents</b>                       |                  |                     |            |
| Involving Collisions With Other Vessels     | 45%              | 43%                 | 38%        |
| Involving Machinery Failure                 | 14%              | 8%                  | 9%         |
| Involving Auxiliary Sailboats               | 27%              | 11%                 | 7%         |
| Involving Cabin Motorboats                  | 64%              | 17%                 | 14%        |
| Involving Personal Watercraft               | 9%               | 38%                 | 32%        |
| <b>% of Operators Involved in Accidents</b> |                  |                     |            |
| Over 40                                     | 57%              | 30%                 | 33%        |

Santa Monica Bay and the Long Beach Area reveal a different picture of boating accidents when compared to Castaic Lake.

Accidents in these areas show that auxiliary sailboats and cabin motorboats were more likely to be involved in accidents. PWC accidents were very infrequent or nonexistent comparably.

Operators over 40 years of age were also more likely to be involved when compared to Castaic Lake.



|                                   | Long Beach | Southern California | California |
|-----------------------------------|------------|---------------------|------------|
| <b>% of Accidents</b>             |            |                     |            |
| Involving Grounding               | 16%        | 10%                 | 10%        |
| Involving Hazardous Weather/Water | 16%        | 8%                  | 10%        |
| Involving Auxiliary Sailboats     | 21%        | 11%                 | 7%         |
| Involving Cabin Motorboats        | 42%        | 17%                 | 14%        |
| Involving Open Motorboats         | 47%        | 42%                 | 51%        |
| Involving Personal Watercraft     | 0%         | 38%                 | 32%        |

Collisions were slightly higher in the Santa Monica Bay region, when compared regionally and statewide, while grounding was more common in the Long Beach Area.

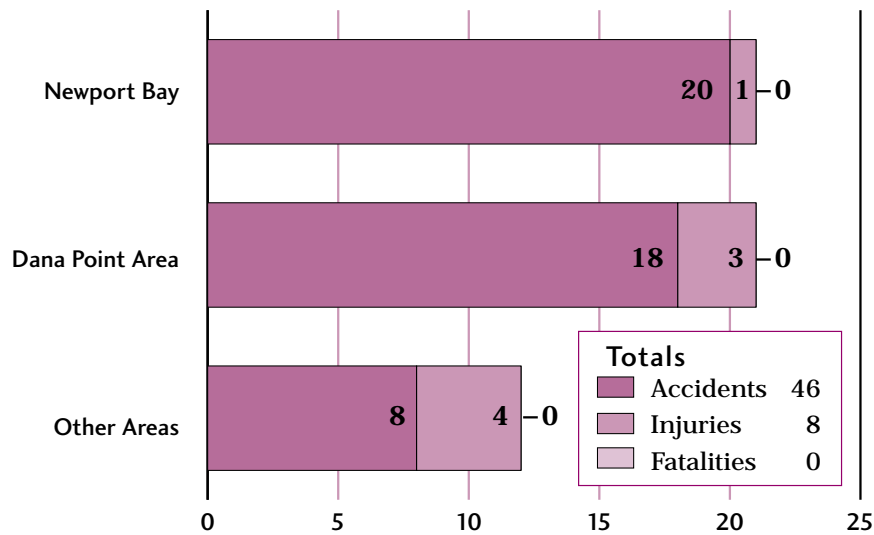


# O R A N G E

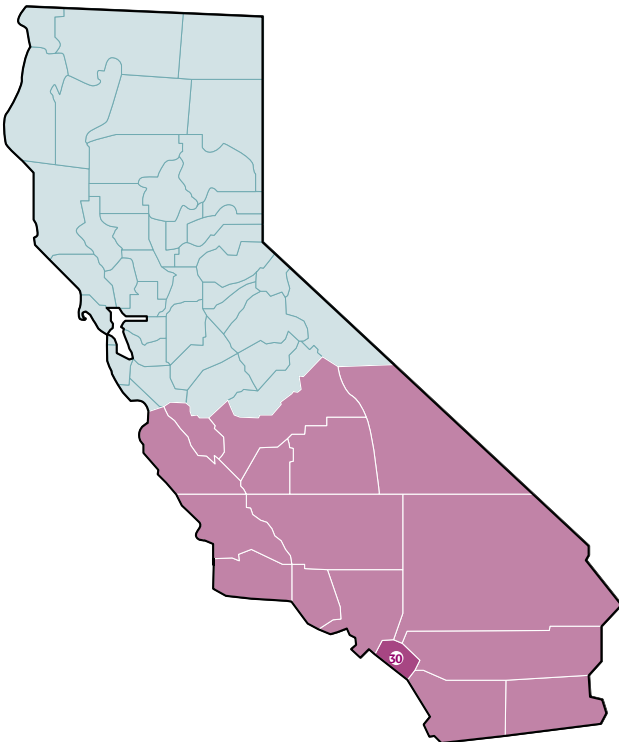
# C O U N T Y

Accidents in Orange County represented 11% of accidents in Southern California. The majority of these accidents involved property damage, with only 17% of these accidents involving injuries.

## 2000 Orange County Boating Accidents by Location



Includes accident statistics for the following Counties:  
30. Orange



# ■ O R A N G E

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## Noteworthy Accident Statistics



|   | Newport Bay | Southern California | California |
|---|-------------|---------------------|------------|
| <b>% of Accidents</b>                   |             |                     |            |
| Involving Collisions With Other Vessels | 55%         | 43%                 | 38%        |
| Involving Operator Inattention          | 40%         | 33%                 | 32%        |
| Involving Auxiliary Sailboats           | 40%         | 11%                 | 7%         |
| Involving Personal Watercraft           | 5%          | 38%                 | 32%        |

The percentage of accidents on Newport Bay that involved collisions with other vessels and operator inattention exceeded regional and statewide percentages.

Additionally, the most common type of vessels involved in accidents were auxiliary sailboats. Conversely, personal watercraft were only involved in 5% of boating accidents, unlike many other regions of Southern California or the state.



|   | Dana Point | Southern California | California |
|---|------------|---------------------|------------|
| <b>% of Accidents</b>                       |            |                     |            |
| Involving Collisions With Other Vessels     | 72%        | 43%                 | 38%        |
| Involving Hazardous Weather/Water           | 11%        | 8%                  | 10%        |
| Involving Auxiliary Sailboats               | 33%        | 11%                 | 7%         |
| Involving Cabin Motorboats                  | 28%        | 17%                 | 14%        |
| Involving Personal Watercraft               | 22%        | 38%                 | 32%        |
| <b>% of Operators Involved in Accidents</b> |            |                     |            |
| Involving Operators Over 40                 | 61%        | 30%                 | 33%        |

Accidents involving collisions and auxiliary sailboats were also common in Dana Point. Accidents involving cabin motorboats and operators over 40 were also common.

The percentage of accidents involving PWC in Dana Point was greater than Newport Bay, although still lower than percentages in Southern California or statewide.





# SAN DIEGO



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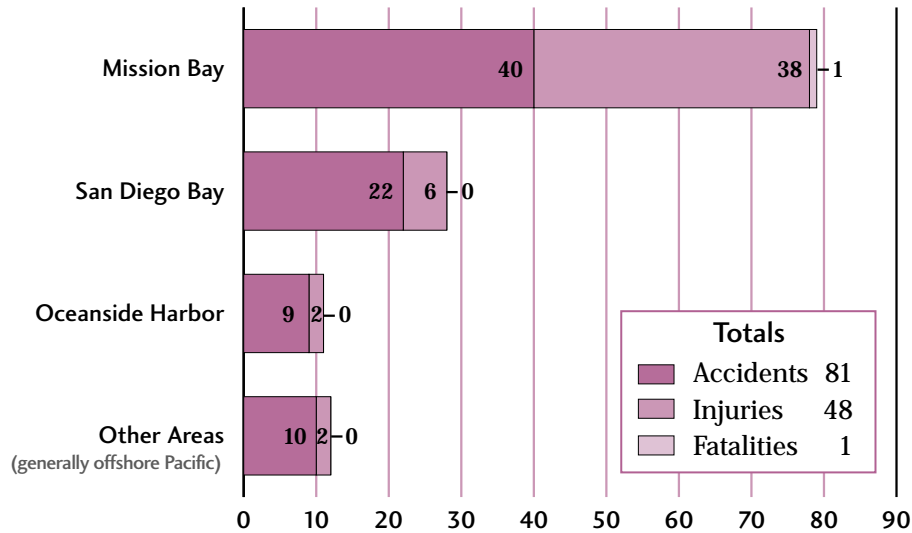
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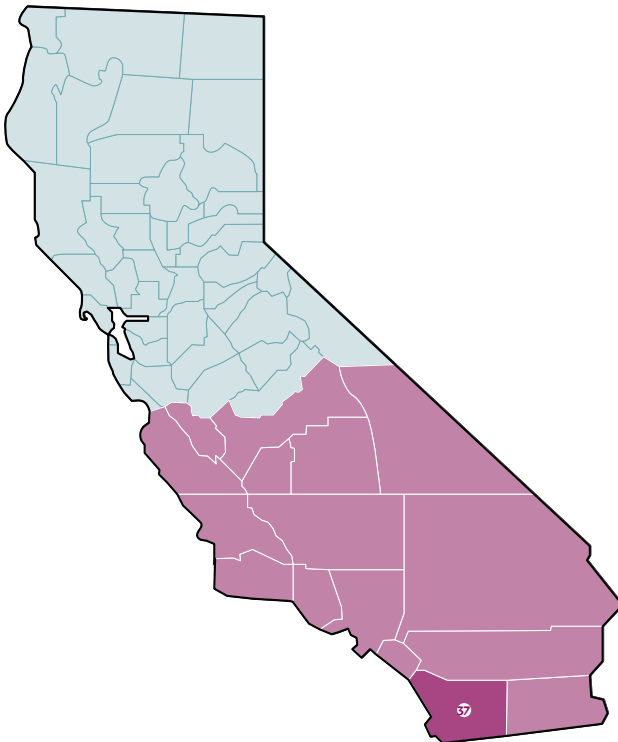
Accidents in San Diego County account for 20% of boating accidents, 22% of injuries, and 6% of fatalities in Southern California.

## 2000 San Diego County Boating Accidents by Location

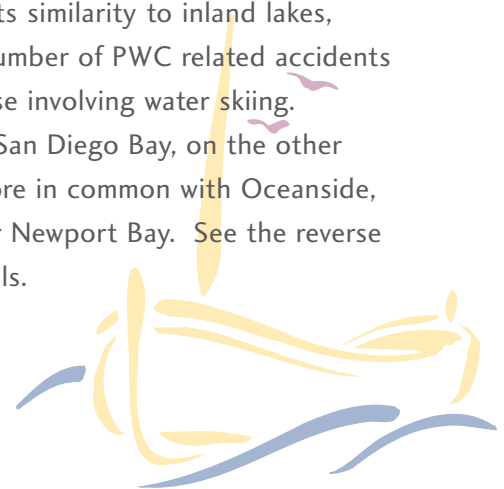


Includes accident statistics for the following Counties:

37. San Diego



Although Mission Bay and San Diego Bay lie side by side, the accident profiles of these two bodies of water have very little in common except operator inexperience. Although technically a coastal water body, Mission Bay's water conditions and accident profile demonstrate its similarity to inland lakes, with a large number of PWC related accidents as well as those involving water skiing. Accidents on San Diego Bay, on the other hand, have more in common with Oceanside, Dana Point, or Newport Bay. See the reverse for more details.



# SAN DIEGO

# COMMUNITY

## Noteworthy Accident Statistics



|   | Mission Bay | Southern California | California |
|---|-------------|---------------------|------------|
| <b>% of Accidents</b>                       |             |                     |            |
| Involving Falls Overboard                   | 23%         | 9%                  | 8%         |
| Involving Water Skiing                      | 13%         | 10%                 | 16%        |
| Involving Excessive Speed                   | 50%         | 26%                 | 24%        |
| Involving Operator Inexperience             | 65%         | 45%                 | 42%        |
| Involving Personal Watercraft               | 70%         | 38%                 | 32%        |
| Involving Rented Vessels                    | 16%         | 8%                  | 11%        |
| <b>% of Operators Involved in Accidents</b> |             |                     |            |
| Under 18                                    | 17%         | 10%                 | 10%        |
| 40 and Under                                | 85%         | 70%                 | 67%        |

Accidents involving PWC and water skiing both exceeded regional percentages. Accidents involving excessive speed, operator inexperience, and rented vessels were also common.

Accidents involving PWC operators who were injured upon falling overboard were also common.

Accidents involving operators 40 years old and younger made up the vast majority of operators. The percentage of operators involved in accidents that were younger than 18 years of age also exceeded both regional and statewide percentages.



|   | San Diego Bay | Southern California | California |
|---|---------------|---------------------|------------|
| <b>% of Accidents</b>                       |               |                     |            |
| Involving Collisions With Other Vessels     | 50%           | 43%                 | 38%        |
| Involving Grounding                         | 14%           | 10%                 | 10%        |
| Involving Operator Inexperience             | 50%           | 45%                 | 42%        |
| Involving Auxillary Sailboats               | 36%           | 11%                 | 7%         |
| Involving Cabin Motorboats                  | 32%           | 17%                 | 14%        |
| Involving Personal Watercraft               | 5%            | 38%                 | 32%        |
| <b>% of Operators Involved in Accidents</b> |               |                     |            |
| Over 40                                     | 73%           | 30%                 | 33%        |

Accidents involving personal watercraft only accounted for 5% of accident totals. Accidents were much more likely to involve auxiliary sailboats, cabin motorboats, and operators over 40 years of age.



|                                 | Oceanside Harbor | Southern California | California |
|---------------------------------|------------------|---------------------|------------|
| <b>% of Accidents</b>           |                  |                     |            |
| Involving Grounding             | 33%              | 10%                 | 10%        |
| Involving Operator Inexperience | 78%              | 45%                 | 42%        |
| Involving Auxillary Sailboats   | 22%              | 11%                 | 7%         |
| Involving Cabin Motorboats      | 33%              | 17%                 | 14%        |
| Occuring on Weekends            | 67%              | 61%                 | 59%        |

Accidents in Oceanside Harbor reveal similarities to San Diego Bay, as they also involved operator inexperience, grounding, auxiliary sailboats and cabin motorboats.

# CALIFORNIA

## 2000 Southern California Boating Accident Comparisons

| CA | So. CA | Col. River | Lake Perris | Big Bear Lake | Santa Monica | Long Beach | Castaic Lake | Newp. Bay | Dana Point | Mission Bay | San Diego | Ocean. Harbor |
|----|--------|------------|-------------|---------------|--------------|------------|--------------|-----------|------------|-------------|-----------|---------------|
|----|--------|------------|-------------|---------------|--------------|------------|--------------|-----------|------------|-------------|-----------|---------------|

| Types - % of Accidents Involving... |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Collisions With Other Vessels       | 38% | 43% | 44% | 92% | 62% | 45% | 26% | 35% | 55% | 72% | 35% | 50% | 22% |
| Falls Overboard                     | 8%  | 9%  | 10% | 0%  | 23% | 0%  | 0%  | 20% | 0%  | 6%  | 23% | 0%  | 11% |
| Grounding                           | 10% | 10% | 16% | 0%  | 0%  | 5%  | 16% | 0%  | 10% | 0%  | 10% | 14% | 33% |
| Water Sking                         | 16% | 10% | 15% | 0%  | 15% | 0%  | 0%  | 15% | 0%  | 0%  | 13% | 0%  | 0%  |

| Causes - % of Accidents Involving... |     |     |     |     |     |     |     |     |     |     |     |     |     |
|--------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Excessive Speed                      | 24% | 26% | 36% | 38% | 8%  | 18% | 0%  | 20% | 10% | 0%  | 50% | 18% | 22% |
| Hazardous Weather/Water              | 10% | 8%  | 8%  | 0%  | 0%  | 5%  | 16% | 0%  | 0%  | 11% | 3%  | 14% | 0%  |
| Machinery Failure                    | 7%  | 9%  | 8%  | 0%  | 23% | 14% | 37% | 8%  | 5%  | 6%  | 5%  | 5%  | 0%  |
| Operator Inattention                 | 32% | 33% | 46% | 62% | 54% | 23% | 26% | 23% | 40% | 22% | 25% | 23% | 11% |
| Operator Inexperience                | 42% | 45% | 43% | 31% | 38% | 41% | 42% | 33% | 45% | 44% | 65% | 50% | 78% |

| Types of Vessels - % of Accidents Involving... |     |     |     |     |     |     |     |     |     |     |     |     |     |
|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Auxiliary Sailboats                            | 7%  | 11% | 0%  | 0%  | 0%  | 27% | 21% | 0%  | 40% | 33% | 5%  | 36% | 22% |
| Cabin Motorboats                               | 14% | 17% | 8%  | 0%  | 8%  | 64% | 42% | 0%  | 15% | 28% | 5%  | 32% | 33% |
| Open Motorboats                                | 51% | 42% | 61% | 31% | 62% | 5%  | 47% | 48% | 50% | 17% | 25% | 23% | 22% |
| Personal Watercraft                            | 32% | 38% | 49% | 92% | 54% | 9%  | 0%  | 48% | 5%  | 22% | 70% | 5%  | 11% |
| Borrowed Vessels                               | 27% | 28% | 25% | 44% | 36% | 9%  | 13% | 13% | 26% | 19% | 33% | 18% | 27% |
| Rented Vessels                                 | 11% | 8%  | 11% | 0%  | 9%  | 3%  | 4%  | 0%  | 13% | 13% | 16% | 3%  | 9%  |
| Operated by Owner                              | 45% | 47% | 51% | 36% | 45% | 53% | 67% | 80% | 23% | 32% | 28% | 45% | 36% |

| Operator Age - % of Operators Involved in Accidents (does not include unknowns) |     |     |     |     |     |     |     |     |     |     |     |     |     |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 18 and Under  | 10% | 10% | 13% | 11% | 18% | 0%  | 0%  | 14% | 6%  | 11% | 17% | 0%  | 13% |
| 40 and Under  | 67% | 70% | 66% | 89% | 82% | 43% | 50% | 93% | 61% | 39% | 85% | 27% | 50% |
| Over 40   | 33% | 30% | 34% | 11% | 18% | 57% | 50% | 7%  | 39% | 61% | 15% | 73% | 50% |

| Other Factors - % of Accidents Occurring on... |     |     |     |     |     |     |     |     |     |     |     |     |     |
|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Holiday Weekends                               | 20% | 21% | 18% | 38% | 38% | 14% | 16% | 17% | 20% | 11% | 20% | 14% | 11% |
| Weekends                                       | 59% | 61% | 61% | 85% | 85% | 50% | 58% | 63% | 40% | 56% | 65% | 55% | 67% |

# SOUTHERN

