

Shasta Lake BOATING SAFETY

Whiskeytown-Shasta-Trinity National Recreation Area
Shasta-Trinity National Forest



America's Great Outdoors California 2006

HISTORY OF SHASTA LAKE

Shasta Dam was constructed between 1935 and 1945 and the lake was created in 1948. When full, its 370 mile shoreline exceeds that of San Francisco Bay, making it the largest human made reservoir in California. Shasta is the second largest and one of the tallest concrete dams in the United States.

The construction of the 602 foot dam impounded three major north state rivers; The McCloud, Pit and Sacramento. Referred to as "arms," each one has its own character, environment, history and recreation opportunities.

Approximately 6.2 million acre feet of water flows into Shasta Lake from the McCloud, Pit, and Sacramento River drainages annually. At full pool, the expanse of the lake surface covers 29,500 acres. The lake elevation at the spillway is 1,067 feet.

Lake level is controlled by the Bureau of Reclamation for hydroelectric power generation, flood control, irrigation and environmental purposes. During the irrigation season surplus water from Shasta Lake is released and diverted down to California's Central Valley. Shasta Lake's outflow to the Bay-Delta contributes to the drinking water supply for about 20 million Californians and supports such major crops as rice, barley, vegetables and nuts.

The Shasta-Trinity National Forest (USDA Forest Service) administers recreation activities on the lake surface and the land surrounding the lake. Shasta Lake is the core of the Shasta Unit of the Whiskeytown-Shasta-Trinity National Recreation Area (NRA); a congressionally designated area recognized for its unique and varied recreation potential.

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LAKE FLUCTUATIONS & UNDERWATER OBSTACLES

Annual precipitation and the demand for water are primary determinants of lake levels. **LAKE LEVELS CAN VARY FROM A FEW INCHES TO SEVERAL FEET PER DAY.** Prior to the construction of Shasta Dam, the landscape within the pool area of the lake resembled the surrounding hills above the high water line; with town, ranches, and mining establishments dotting the canyons. Highways and railroads provided passageways through the canyons and over the hills. Highway 99 was once the main thoroughfare from Redding to Dunsuir, and included bridges that crossed Charlie Creek, Salt Creek and O'Brien Creek. Portions of these bridges are still intact and are visible when lake levels are extremely low. In addition, a number of submerged trees remain in the upper stretches of the Pit Arm. These remnants of the past, along with other underwater obstacles, such as rocks, trees, stumps, and landforms **may become exposed or may lie just below the water surface when the lake level changes.**

In an effort to reduce the incidence of vessel contacts with underwater obstacles, the Boating Safety Unit of the Shasta County Sheriff's Department introduced a County Ordinance prohibiting vessel speeds in excess of 5 mph within 100 feet of any shoreline or anchored vessel. The Forest Service expanded this effort by implementing a pilot Underwater Obstacle Program.

THE UNDERWATER OBSTACLE PROGRAM

The Underwater Obstacle Program is being funded through the Recreation Enhancement Act which allows the Forest Service to retain and reinvest specific recreation special use permit fees to provide recreation based improvements in the NRA.

The Underwater Obstacle Program objectives are:

- To encourage safe boating practices
- To promote an awareness of the presence of obstacles in Shasta Lake

The Program will have a number of components including:

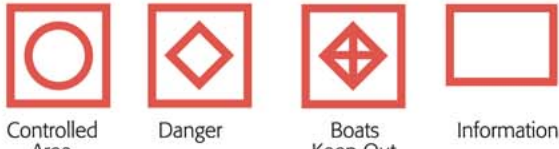
- Boating Safety Brochure:** This brochure includes a description of the program and a graphic representation of how the features of the lake might be affected by changes in water level.
- Interpretive Signs:** These signs will be located at designated boat ramps notifying visitors of the presence of obstacles, and the fact that **most obstacles are NOT marked.** Boating safety regulations will also be included in the signing.

Obstacle Marking: Approximately 100 obstacle markers have been installed within the pool area of the lake. The intention is NOT to mark all underwater obstacles; this would be virtually impossible. The markers are to serve as a visual reminder that obstacles are present and to encourage visitors to watch for debris, underwater obstacles and shallow areas. **The responsibility for boating safety rests with each individual vessel operator.**

Nearly a dozen Shasta Lake business owners have volunteered their work force to assist with installation and take responsibility for the maintenance of the obstacle markers. The merits and success of this program will be evaluated and its continuation is at the discretion of the District Ranger.

California Waterway Marker System Information: A uniform California Waterway Marker system has been devised for all waterways within the state. All Shasta Lake markers will incorporate the system's distinctive shapes to show regulatory or advisory information. These markers are white and black letters and have orange borders. They signify speed zones, restricted areas, danger areas, and general information. Vessel operators on Shasta Lake should be familiar with the following types of markers.

California Waterway Marker System:



It is a violation of Federal law, punishable by up to 6 months in jail and/or a \$500 fine, to move, vandalize, or otherwise intentionally damage or alter obstacle markers, control buoys or regulatory buoys. Never tie watercraft to buoys or other navigational aids.

BOAT SAFE AND SOBER!

Alcohol and drug use have been cited as contributing factors in many boating injuries, accidents and fatalities. Studies indicate that the effects of alcohol and drugs are more pronounced when operating a boat. Alcohol and/or drug use combined with wind, increased noise levels, vibration, wave action and sun glare have been shown to have a tremendous adverse influence on judgement and response times. It is unlawful to operate a recreational vessel while under the influence of alcohol or drugs. Under California State law, a person with a blood alcohol level of .087% or greater is considered to be under the influence.

WHEN TROUBLE STRIKES

The Shasta County Sheriff's Department maintains a lake patrol program on Shasta Lake. Medical aid is provided by Shasta County fire departments and private ambulance companies based in the Redding area (which include both land and air ambulance services).

Reporting an Emergency

Call 911

If you are in distress (i.e. when threatened by grave and imminent danger) or observe another vessel in distress, be prepared to calmly and clearly state the following information when asked:

- Your name
- Where you are on the lake
- What emergency has occurred
- How many people are on board and involved
- Extent of injuries
- Description of your vessel, including registration number

Cellular phone service is available from many places on the lake. Pay phones are available at most marinas and resorts.

Reporting a Fire

Call 911

Local Non-Emergency Law Enforcement

- Shasta County Sheriff's Office, Boating Safety Unit (530) 245-6075
- Sheriff - (530) 245-6540

After An Accident Has Occurred

If an accident results in loss of life, injury requiring medical treatment beyond first aid, or damage to property in excess of \$500 (including loss of a vessel), the owner/operator is required by law to report the accident in writing to the California Department of Boating and Waterways. All boat operators involved in the accident must provide their names, addresses and vessel registration numbers to other involved parties, provide assistance to any injured persons, and in case of a death or disappearance, report the accident without delay. To obtain an accident reporting form or further information write or call:

California Dept. of Boating and Waterways
2000 Evergreen St. Suite 100
Sacramento, CA 95815-3888
(916) 263-8189
(916) 263-4326
1-800-526-2822

REGULATIONS SPECIFIC TO BOATING ON SHASTA LAKE

Boating on Shasta Lake is regulated by State and Federal Boating Laws, County Ordinances, and Orders issued by the Supervisor of the Shasta-Trinity National Forest. The County Sheriff, the California Department of Fish and Game (DFG), and the USDA Forest Service (FS) are responsible for law enforcement on Shasta Lake.

Violations

The following list of common violations will be strictly enforced:

- Equipment violations**
 - Failure to provide properly fitting lifejackets for each person on board
 - Inadequate/improper safety equipment (see list of required equipment)
- Speeding violations**
 - Nighttime speeds faster than 15 mph from 1/2 hour after sunset to 1/2 hour before sunrise
 - Skating, tubing or wakeboarding in no-ski areas
 - Traveling faster than 5 mph within 200 feet of any permanent launch ramp or boat dock.
 - Traveling faster than 5mph in coves with posted speed limits.
- Reckless and negligent operation**
 - Boating under the influence (zero tolerance)
 - Skating, tubing or wakeboarding without an observer
 - Bow riding
 - Boat operators must be 16 years of age (operators 12 - 15 years old may operate a motorboat if they are directly supervised by an adult over 18 years old)
 - Boat occupants are not permitted to ride on the bow, gunwale or transom of any boat lacking an appropriate protective railing while the boat is underway
 - Maneuvering a vessel to pass over or under another vessel's towline of a skier or other towed device

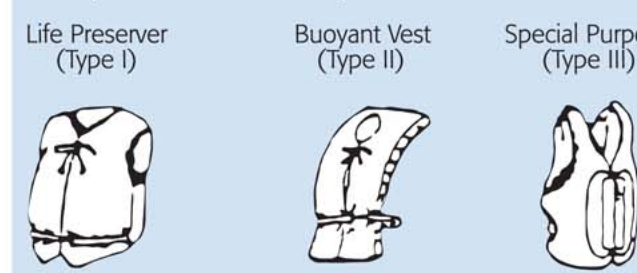
As of March 1999, the Shasta County Sheriff's Boating Safety Unit adopted a new County Ordinance adding the following speed zones on Shasta Lake:

- No person shall operate a motorboat at a speed in excess of 5 mph within 100 feet of any swimmers, shoreline or anchored vessel.
- 5 mph speed zones have been added from 500 feet south to 500 feet north of the following resorts: Tsasdi's Resort, and Antlers Resort.

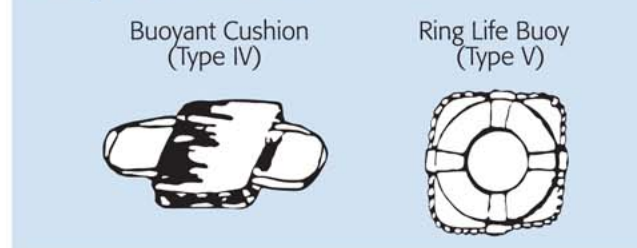
Required Equipment

Wearable and Throwable Personal Flotation Devices (PFDs) Flotation Devices are required on all vessels for every person on board. They must be in serviceable condition (no broken straps, missing hardware, or missing or faded approval number), be the proper size(s), and must be stowed to allow ready accessibility. Throwable flotation devices must be available for immediate use. Wearables include all Type I, II, and III lifejackets. Type I includes Life Preservers, Type II are buoyant vests such as the "Mae West" style, and Type III are the special purpose marine buoyant devices. Type I lifejackets are recommended for most situations because they are the only wearable flotation devices designed to keep a person afloat even when exhausted or incapacitated. They will keep a person's head above water in rough water, and have the ability to turn an unconscious person face up. Throwables such as buoyant cushions and ring lifebuoys are considered Type IV devices. Persons being towed, such as skiers, are considered passengers and are required to have flotation devices. On all boats over 16 feet, except canoes and kayaks, the flotation devices required must be a wearable type (Type I, II, or III) plus one throwable (Type IV). On all other boats, wearable or throwable devices may be used as long as there is at least one per person. Note - PFDs only work if they are worn and buckled properly. An unconscious person cannot put on a lifejacket. Even a conscious person will have great difficulty putting on a lifejacket once he or she is in the water.

Examples of wearable life jackets



Examples of throwables



Fire Extinguishers

All motorboats are required to have fire extinguishers on board, with the exception of outboard pleasure boats measuring less than 26 feet long that do not have permanently installed fuel tanks or enclosed spaces for gases or vapors to collect. All extinguishers must be approved for marine use and be at least B-1 in size (see below).

Boat Length	# of Extinguishers Required
less than 16 ft.	1 B-1
16 to under 26 ft.	1 B-1
26 to under 40 ft.	2 B-1 or 1 B-11
40 to under 65 ft.	3 B-1 or 1 B-11 & B-1

Lights

Running lights are required on all vessels operating between sunset and sunrise. Manually propelled vessels must have at least one hand held white light. The design, size and number of lights are dictated by type and size of vessel. See "the ABCs of California Boating law" for specific requirements.

Other Requirements

- Ventilation and Backfire Flame Control Devices are required on all powerboats except those with outboard motors.
- Horns or whistles are required on vessels 16 feet or longer and all vessels must have some means of making a loud sound for signaling other than the human voice.

Registration and Permits

All vessels, except boats manually propelled, sailboats eight feet or less in length without other means of propulsion, and certain public vessels must be registered and numbered through the State of California. Out-of-state registration is valid for 90 days. In addition, some boats such as houseboats require a Forest Service permit to be on the lake in excess of 30 days per calendar year. This restriction applies primarily to boats designed for overnight use.

Engine Noise

Engines must be muffled or otherwise prevented from exceeding 82dB (A) noise levels when recorded at a distance of 50 feet. Boats manufactured before January 1, 1987 may run at levels up to 86 dB (A). Authorities generally agree that unfiltered exhaust pipes (stacks) and most water injected pipes cannot meet the above standards.

Warning Flags



Boaters should exercise caution when operating in areas where these flags are displayed.

Water Skiing, Tubing and Wakeboarding

For all activities where a person is being towed, there must be a person at least 12 years of age acting as an observer, in addition to the vessel operator. California state law requires the observer to display a ski flag (as shown above) to indicate any of the following conditions; a person in the water preparing to be towed, a tow line extending from the vessel, a downed person, or equipment in the vicinity of the vessel. The orange or red flag must be no less than 12 inches on each side and be in the shape of a square or rectangle.

Personal Water Craft

"Personal watercraft" (PWC) refers to a vessel less than 12 feet in length, propelled by machinery and operated by a person sitting, standing, or kneeling on the vessel rather than sitting or standing inside the vessel. PWCs are subject to the same regulations that apply to boats. The following PWC activities are prohibited:

- No person shall operate a PWC at a speed in excess of 5 mph within 100 feet of any swimmers, shoreline or anchored vessel
- PWCs cannot be operated sunset to sunrise, even if equipped with the proper navigational lights
- Operating a PWC without a lanyard-operated "kill switch"
- Personal flotation devices (PFDs) must be worn.

Swimming

There are no developed swimming sites along the shoreline of Shasta Lake. The steep embankment and the heavy draw down during the recreation season make finding a flat spot for a suitable beach along the water's edge difficult. There are, however, literally hundreds of coves and bays where visitors can find a safe, quiet place to swim. The practice of swimming while houseboating and powerboating in main channels and busy coves is not advised due to heavy traffic. It is difficult for oncoming boats to see people in the water. **Swimming is prohibited within 200 feet of any launch ramp.**

Disclaimer...

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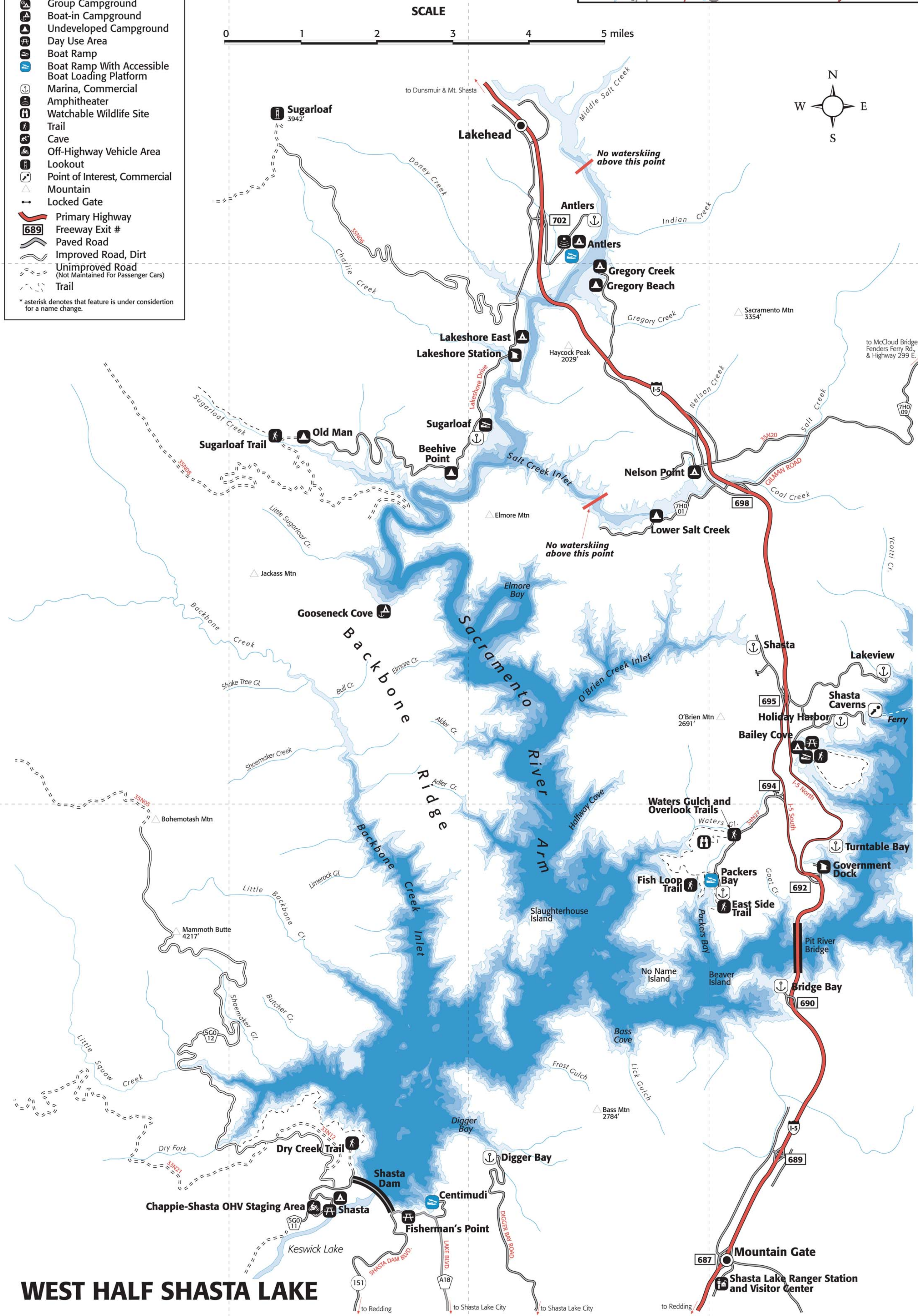
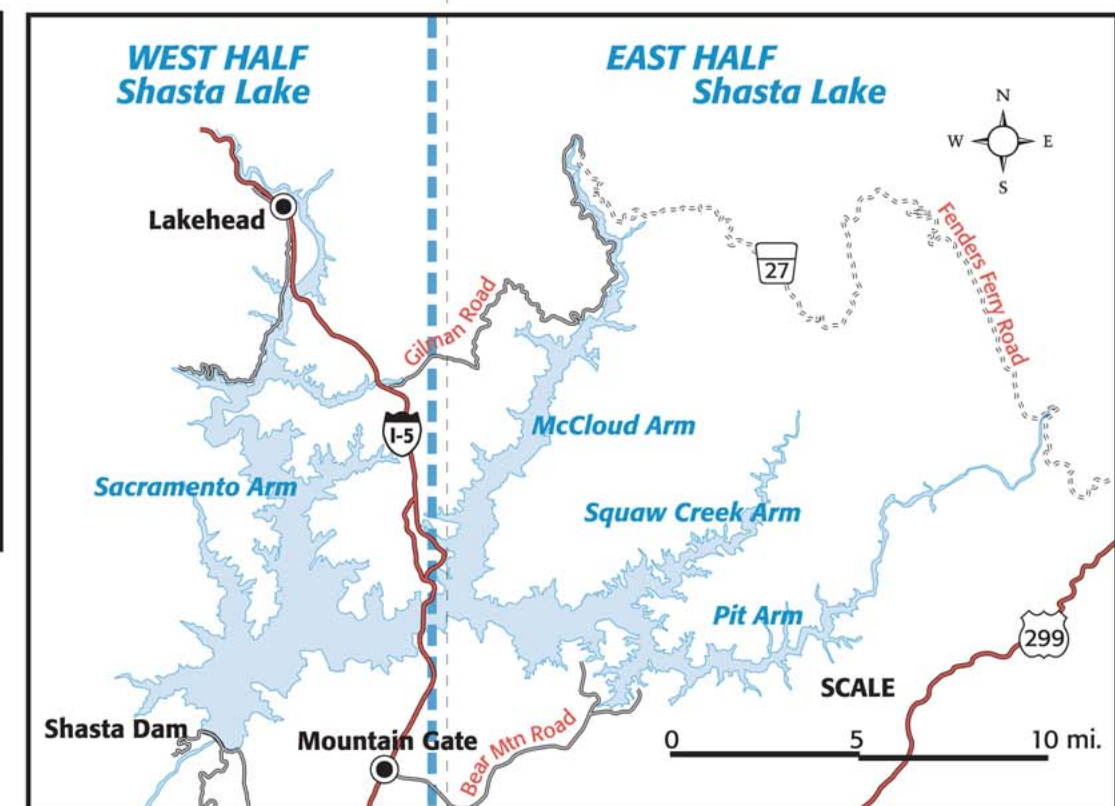
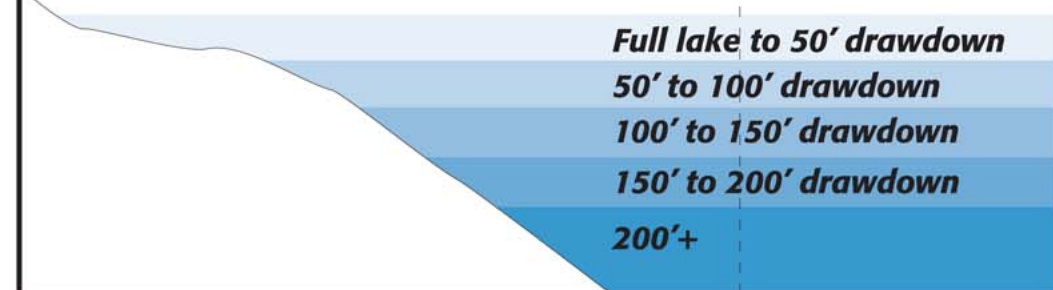
MAP LEGEND

- Town or City
- Ranger Station
- Other Forest Service Facility
- Campground
- Group Campground
- Boat-in Campground
- Undeveloped Campground
- Day Use Area
- Boat Ramp
- Boat Ramp With Accessible Boat Loading Platform
- Marina, Commercial
- Amphitheater
- Watchable Wildlife Site
- Trail
- Cave
- Off-Highway Vehicle Area
- Lookout
- Point of Interest, Commercial
- Mountain
- Locked Gate
- Primary Highway
- Freeway Exit #
- Paved Road
- Improved Road, Dirt
- Unimproved Road (Not Maintained For Passenger Cars)
- Trail

* asterisk denotes that feature is under consideration for a name change.

Interpreting the Map

This legend illustrates what the various shades of blue mean on the map. All levels are approximate. Your chances of hitting submerged islands will be greatly reduced by staying in the darker blue areas. To obtain current information on lake levels, call any of the marinas on the lake, the Shasta Lake or Shasta Dam Visitor Information Centers, or look in the daily newspaper.



WEST HALF SHASTA LAKE

EAST HALF SHASTA LAKE

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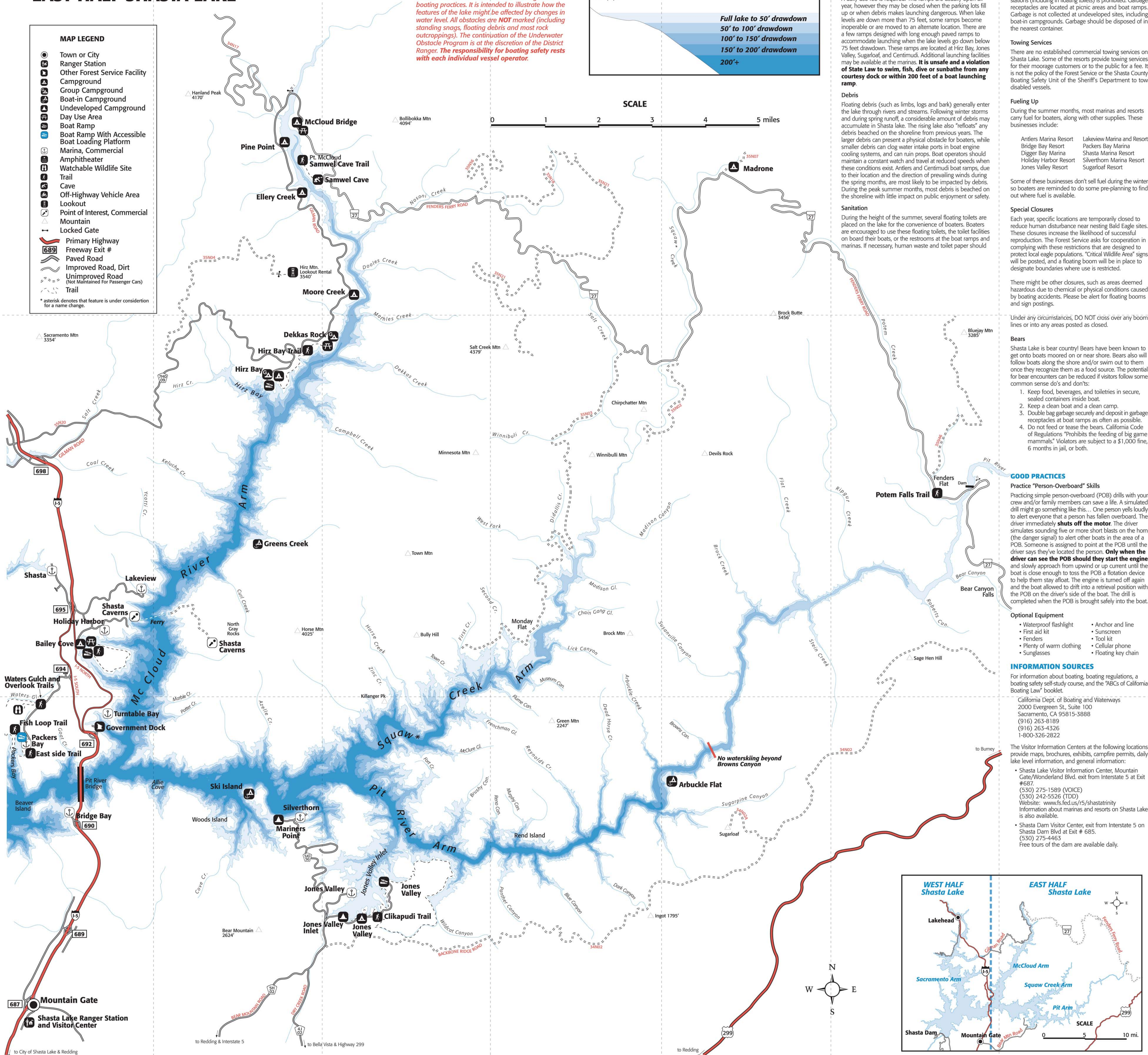
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THINGS TO KNOW

Boat Launching

Both Forest Service and commercial ramps are available. Each of the six designated Forest Service ramps has a paved ramp, a lighted parking area, restrooms and garbage disposal facilities. A daily use fee is required. The ramps are usually open all year, however they may be closed when the parking lots fill up or when debris makes launching dangerous. When lake levels are down more than 75 feet, some ramps become inoperable or are moved to an alternate location. There are a few ramps designed with long enough paved ramps to accommodate launching when the lake levels go down below 75 feet drawdown. These ramps are located at Hirz Bay, Jones Valley, Sugarloaf, and Centimudi. Additional launching facilities may be available at the marinas. **It is unsafe and a violation of State Law to swim, fish, dive or sunbathe from any courtesy dock or within 200 feet of a boat launching ramp.**

Debris

Floating debris (such as limbs, logs and bark) generally enter the lake through rivers and streams. Following winter storms and during spring runoff, a considerable amount of debris may accumulate in Shasta lake. The rising lake also "refloats" any debris beached on the shoreline from previous years. The larger debris can present a physical obstacle for boaters, while smaller debris can clog water intake ports in boat engine cooling systems, and can ruin props. Boat operators should maintain a constant watch and travel at reduced speeds when these conditions exist. Antlers and Centimudi boat ramps, due to their location and the direction of prevailing winds during the spring months, are most likely to be impacted by debris. During the peak summer months, most debris is beached on the shoreline with little impact on public enjoyment or safety.

Sanitation

During the height of the summer, several floating toilets are placed on the lake for the convenience of boaters. Boaters are encouraged to use these floating toilets, the toilet facilities on board their boats, or the restrooms at the boat ramps and marinas. If necessary, human waste and toilet paper should

Sanitation continued...

be buried in a hole at least six inches deep and 200' from the high water mark (the line where the vegetation begins and the shoreline ends). Shasta Lake is a "no discharge" lake. Holding tanks must be sealed. Emptying holding tanks anywhere other than in approved marina pumping stations (including in floating toilets) is prohibited. Garbage receptacles are located at picnic areas and boat ramps. Garbage is not collected at undeveloped sites, including boat-in campgrounds. Garbage should be disposed of in the nearest container.

Towing Services

There are no established commercial towing services on Shasta Lake. Some of the resorts provide towing services for their moorage customers or to the public for a fee. It is not the policy of the Forest Service or the Shasta County Boating Safety Unit of the Sheriff's Department to tow disabled vessels.

Fueling Up

During the summer months, most marinas and resorts carry fuel for boaters, along with other supplies. These businesses include:

Antlers Marina Resort	Lakeview Marina and Resort
Bridge Bay Resort	Packers Bay Marina
Digger Bay Marina	Shasta Marina Resort
Holiday Harbor Resort	Silverthorn Marina Resort
Jones Valley Resort	Sugarloaf Resort

Some of these businesses don't sell fuel during the winter so boaters are reminded to do some pre-planning to find out where fuel is available.

Special Closures

Each year, specific locations are temporarily closed to reduce human disturbance near nesting Bald Eagle sites. These closures increase the likelihood of successful reproduction. The Forest Service asks for cooperation in complying with these restrictions that are designed to protect local eagle populations. "Critical Wildlife Area" signs will be posted, and a floating boom will be in place to designate boundaries where use is restricted.

There might be other closures, such as areas deemed hazardous due to chemical or physical conditions caused by boating accidents. Please be alert for floating booms and sign postings.

Bears

Shasta Lake is bear country! Bears have been known to get onto boats moored on or near shore. Bears also will follow boats along the shore and/or swim out to them once they recognize them as a food source. The potential for bear encounters can be reduced if visitors follow some common sense do's and don'ts:

1. Keep food, beverages, and toiletries in secure, sealed containers inside boat.
2. Keep a clean boat and a clean camp.
3. Double bag garbage securely and deposit in garbage receptacles at boat ramps as often as possible.
4. Do not feed or tease the bears. California Code of Regulations "Prohibits the feeding of big game mammals." Violators are subject to a \$1,000 fine, 6 months in jail, or both.

GOOD PRACTICES

Practice "Person-Overboard" Skills

Practicing simple person-overboard (POB) drills with your crew and/or family members can save a life. A simulated drill might go something like this... One person yells loudly to alert everyone that a person has fallen overboard. The driver immediately **shuts off the motor**. The driver simulates sounding five or more short blasts on the horn (the danger signal) to alert other boats in the area of a POB. Someone is assigned to point at the POB until the driver says they've located the person. **Only when the driver can see the POB should they start the engine** and slowly approach from upwind or up current until the boat is close enough to toss the POB a flotation device to help them stay afloat. The engine is turned off again and the boat allowed to drift into a retrieval position with the POB on the driver's side of the boat. The drill is completed when the POB is brought safely into the boat.

Optional Equipment

- Waterproof flashlight
- First aid kit
- Fenders
- Plenty of warm clothing
- Sunglasses
- Anchor and line
- Sunscreen
- Tool kit
- Cellular phone
- Floating key chain

INFORMATION SOURCES

For information about boating, boating regulations, a boating safety self-study course, and the "ABCs of California Boating Law" booklet:

California Dept. of Boating and Waterways
 2000 Evergreen St., Suite 100
 Sacramento, CA 95815-3888
 (916) 263-8189
 (916) 263-4326
 1-800-326-2822

The Visitor Information Centers at the following locations provide maps, brochures, exhibits, campfire permits, daily lake level information, and general information:

- Shasta Lake Visitor Information Center, Mountain Gate/Wonderland Blvd. exit from Interstate 5 at Exit #687. (530) 275-1589 (VOICE) (530) 242-5526 (TDD) Website: www.fs.fed.us/r5/shastatrinity Information about marinas and resorts on Shasta Lake is also available.
- Shasta Dam Visitor Center, exit from Interstate 5 on Shasta Dam Blvd at Exit # 685. (530) 275-4463 Free tours of the dam are available daily.

