Water Safety

INTERPRETIVE CHEAT SHEET

OBJECTIVE

To become more aware of river dangers and how to stay safe.

MATERIALS

Laminated articles about local drowning and water safety, plastic tub with boat and bag of pennies, workbook "Aqua Smart – Lessons for Water and Boating Safety"

ACTIVITIES

Display your sign saying "Today's Interpretive Topic – Water Safety", lay out newspaper articles of recent drownings in ASRA and articles about the danger of cold water and the importance of life safety vests. Ask visitors if they heard about the recent drownings and explain the dangers of the river. One of the sheets gives websites to look up the river water temperature and flow (cubic feet per second, or cfs). You could use a phone to look it up with your visitors. Discuss how the cfs and temperatures change at different times of year.

Make available for children to look at and (if available) to take with them the fun kids workbook called "Aqua Smart – Lessons for Water and Boating Safety" . Have crayons or colored pencils available and ask each kid to complete a page.

Fill a tub with a few inches of water and place in a plastic toy boat. To demonstrate how to balance weight in a boat or raft, have your visitors start stacking pennies, one at a time, until your craft tips over or sinks. Show how you can stack many more if you have them balanced equally on different sides of the craft instead of all on one side. The principle works exactly the same with people and supplies in boats and rafts.

FUN FACTS

To look up the water flows go to:
https://waterdata.usgs.gov/ca/nwis/current/?type=flow and look up the American River. On March 21, 2018, an example of a heavy rain period, the measured flows at Lake Clementine on the North Fork started around 1200 cubic feet per second (cfs) and in 24 hours surged to a peak of approximately 27,000 cfs. If you 'Google search California river flows you can find similar websites with flow data on other locations.

Even in more moderate flow conditions, there are dangerous parts of the rivers where the twists, turns and drops of the channel as well as underwater rocks and other objects can cause swimmers to be pulled under and, in some cases caught in dangerous situations.

There are dangerous rapids on the Middle Fork, just upstream from the Confluence and also some potentially troublesome rapids just downstream from the Confluence, before you get to the Highway 49 Bridge.

The river whitewater classification system ranks river rapids from Class I to Class VI. The American River in ASRA has areas that fit every one of these classifications. See ASRA maps and American River book for location of these rapids and their descriptions.

Whitewater Classification System – source: wetplanetwhitewater.com
CLASS I - moving water with a few riffles and small waves. Few or no obstructions.

CLASS II – easy rapids with smaller waves, clear channels that are obvious without scouting. Some maneuvering might be required.

CLASS III – rapids with high, irregular waves. Narrow passages that often require precise maneuvering.

CLASS IV – long, difficult rapids with constricted passages that often require complex maneuvering in turbulent water. Scouting is often necessary.

CLASS V – extremely difficult, long and very violent rapids with highly congested routes, which should be scouted from shore. Rescue conditions are difficult and there is significant hazard to life in the event of a mishap.

CLASS VI – Class V carried to the extreme. Nearly impossible and very dangerous. For teams of experts only. Involves risk of life. Not commercially raftable.

To look up river water temperature go to: https://waterdata.usgs.gov/nwis/uv?site_no=11433790. It gives you the river water temperature at the Auburn Dam site. For the week of June 15-22, 2017, the river water temperature at this site ranged from 57-67 degrees. The temperatures generally go down as you move upstream.

In the summer and fall, especially, the water on the Middle Fork is generally several degrees colder than the water on the North Fork above the Confluence. The reason is the water on the North Fork flows over the top of Lake Clementine dam and heats up with the sun, while the Middle Fork water flows from the bottom of Oxbow Lake dam.

The Placer County Water Agency operates the Oxbow Dam and has an agreement with river rafting companies to release extra water on the Middle Fork on specified days so that the river flows are high enough for rafting. These releases are timed and on these days the water level at the Confluence rises significantly in a short period of time, generally in the latter part of the afternoon. Unsuspecting visitors sometimes get caught on the wrong side of the river or on islands when the rise comes and need to be rescued by boat or helicopter.