

Lee's Ferry to Diamond Creek – Non-commercial Colorado River Trip Orientation Video
Chapter Two: Water Temperature and Flow Variations
Grand Canyon National Park and Round House Productions- <http://www.rhpmedia.com/>

Until 1963 and the construction of Glen Canyon Dam, the Colorado *river's* summer water temperature was a warm 75 degrees and the river level fluctuated on a seasonal basis.

Water is now released from 200' feet below the top of the dam. This water is very cold, ranging from forty-five to sixty degrees and only warms 1 degree every 20 miles you travel down river. The water temperature is also dependant on Lake Powell's water level and time of year.

The extremely cold water is one of the prime reasons for Grand Canyon's life jacket regulation. Simply, if you are on your boat and it is not tied to the shore you will wear a properly fitted life jacket 100% of the time.

At 47 degrees even in flat water you have about 5 to 10 minutes of muscle activity to rescue yourself. In ten minutes your muscles stop working and your chances of rescue are very poor. While death is the ultimate penalty for not wearing a PFD, there are also significant fines for being caught not wearing them.

Some people will experience hypothermia after a long period in the cold water. These people must be warmed up. This can be done by stripping the person and putting them in a sleeping bag. Skin to skin contact greatly facilitates warming and the victim will need yours since they won't have much of their own.

Much like the ocean the Colorado River experiences tidal changes. These fluctuations are controlled by water releases from Glen Canyon Dam.

Since the water flows at about 5 miles per hour, releases from the dam will take varying times to reach different areas. A dam release will take 12 hours to reach the Little Colorado and about 18 hours to reach Phantom Ranch. Tables are available that will help you calculate when the river will rise and fall in specific areas. The fluctuations have certain side benefits for the ecosystem.

As the water rises then recedes it removes any human impacts below the high water mark. To have as little personal impact as possible on the environment use the low water areas for activities such as bathing, dish washing or eating a meal. Any impact above the high water mark will last a very long time.

The water levels will also effect your daily planning. At low water there will plenty of beach to conduct your activities in camp. But remember this is low water , when it rises later anything left in the low water zone will be washed away and headed for Lake Mead without you.

The water levels will also effect where and how you tether your boat at night. If you don't adjust the position of your boat periodically during the night you may find yourself high and dry when the water goes down, possibly sitting on a rock that was several feet underwater the day before.

Be sure to check with the Lee's Ferry ranger for predicted river flow patterns that may occur during your trip.