

The Colorado River is truly one of America's lifelines. This river is so important to a large population of the United States, and the many types of wildlife that inhabit on its area of influence. 10% of Americans rely on the river for direct access to their water, agricultural needs, and power. Through the river's 15 dams, it generates 4200 megawatts of hydroelectricity, providing power to millions of people in the region. The river suffers from extreme drought, in the last 16 years there has been the lowest period of water inflow on record. Since the beginning of record keeping of the Colorado river 100 years ago, the reservoir was full. Today it has declined to half capacity. Here is a graph from the U.S. department of the interior, showing the past supply and usage of the water over a 10-year running average since 1919. Supply has trended downward, and the demand has trended upward. In recent years we have had more demand than there is supply, creating a deficit of water. If these trends continue, we will lose drinking water, water for irrigation, and millions of homes will be without power. There will also be a large loss of habitat for threatened and endangered species, some native only to the Colorado river. In addition, there is a \$1 billion outdoor recreation and wildlife industry that will have to shut its doors if the river dries up. On the left you will see images of the Hoover dam provided by the U.S. department of the interior shown in 2001 and 2015 on the right. Between 2001 and 2015 the water level of Lake Mead has dropped from 1196 to 1075 feet. To stop these hurtful trends, we must take action! A few things you can do to help with this is to shut off water when brushing your teeth, take shorter showers, and use the power of your voice by voting in support of water conservation and regulation. Going forward it will be important to know when we will have droughts in the Colorado river basin. Current methods provide us with reliable insight for about 6 months in the future. There is a new method that can provide us with reliable drought predictions up to 2 years in advance using ocean data from around the world. If we act now, we can still save the river! Thank you.