WHERE'S OUR WATER VIDEO PART 1 TRANSCRIPT

Brought to you by the Asombro Institute for Science Education with support from the USDA Southwest Climate Hub.

This is a photo of Lake Mead outside of Las Vegas, Nevada in 2001 and 2015. What do you see when you compare the two photos? Here's another photo taken in July of 2015. The white rocks are covered in minerals deposited by water. In wet years like 2000, water reached the top of the white minerals. This dashed line shows how low the water level is in 2015, when this photo was taken. You can see from these photos that water levels have been low in recent years. What do you think caused this change?

The water levels at Lake Mead and many other reservoirs around the southwest have been low for years, and this is just one example of the effects of drought on our water supply. Drought is a lack of moisture bad enough to have economic, environmental, or social impacts. Rising temperatures are causing the arid southwest to become even drier, and global temperatures are rising due to climate change.

This map shows change in temperature across the U.S. since 1895. The temperature has increased in areas of the map that are red, and decreased in areas that are blue. Look for your state on the map. Are temperatures increasing or decreasing where you live?

In the southwest where the climate is already dry, rising temperatures are expected to lead to longer and more extreme droughts. Scientists all over the world study the effects of climate change and drought on water supply and analyzing data using graphs is an important piece of their work. Today you'll analyze graphs to construct an argument about the future water supply in the southwest.

This graph shows drought levels in the southwest since 1895. Look at the y-axis. Positive numbers represent wet years, and negative numbers represent dry years. Remember the photos of Lake Mead in 2001 and 2015? These more recent photos are both from relatively dry years. Over the past 120 years, does the data show that the southwest has gotten wetter, drier, or stayed the same?

The graph shows us that it's been getting drier in the southwest, which means we're experiencing more drought. Water is important, and we use it every day. We use water in many ways besides the obvious drinking and taking a shower. It takes water to make the food we eat, create electricity, and even make the clothes we wear. Drought isn't the only factor that contributes to our water supply.

Let's analyze two more graphs. This graph shows the total population of states in the southwest from 1985 to 2015. What's happened to the population of southwestern states since 1985?

You can see that the population has increased. As the population grows, will we use more or less water?

This graph shows how much water per person people used from 2005 to 2015. The blue bars represent southwestern states and the orange bars represent the entire United States.
What do you notice about water use in southwestern states compared to the rest of the country?

We use more water here in southwestern states. We saw earlier that the southwest region is dry. Do you think we have more water than the rest of the country? What do you notice about how water use changes over time? Are people using more or less water now than in 2005? Can you think of a reason why people are using less water now than they were before?

If we put all three of these graphs together, we see that people in southwestern states are using more water than the rest of the country, but the amount used per person is decreasing. The population is growing, and the entire southwest region is getting drier and more likely to have droughts. Consider the evidence that you've gathered from the three graphs and make a claim. Do you think the southwest will have enough water in the future?