

Surface Water Development



Part of why we're not able to hang on to all of that rain is that it disappears into thin air. Experts say that we lose as much as 45 inches of our rain back into the atmosphere. This happens by evaporation, and by evapotranspiration — plants releasing water vapor into the air. Furthermore, coastal rainfall drains immediately into the sea because there's no place to store it.

One place where you notice the drought is in our lakes, like Lake Okeechobee. It is a major part of South Florida's water supply network. In drought times, the level of the lake can drop several feet.



But our water shortage is not just in the lakes. As we talked about earlier, South Florida gets most of its water from underground. You probably remember that the water we take out of the aquifers is replaced with rainwater soaking down. But during a drought, less rainfall means less water reaching the aquifers.

Since some of our main aquifers are located along the coast, when the water we pump out is not replaced by rainwater, then saltwater can seep in from the ocean. This is called saltwater intrusion. Over the years aquifers on both coasts of South Florida have had major problems with saltwater intrusion.

The problem with saltwater intrusion is that when the water in the aquifer gets salty, it's no good for drinking, watering plants or most other things for which we use freshwater. Once an aquifer has saltwater intrusion we might not be able to use the aquifer for many years, if ever.

To avoid running low on surface water in lakes, streams and wetlands, and to prevent permanent damage to our aquifers, we have to cut back on water use.

Adding to the problem is timing. Droughts happen when we don't get enough rain during the rainy season. During hot, dry weather, people usually water their lawns and gardens more often. Then, in the winter, the weather here is still pretty warm and we get almost no rain. Water demand grows — in some places it even doubles. And with very little water in storage from the previous summer, we have big problems.

Part of the reason for the big jump in demand during the winter is the large number of tourists and winter residents. Also, farmers irrigate vegetables heavily in the winter. But much water is wasted by people overwatering their lawns and gardens. Some people put five times as much water as they need to on their lawns.

To prevent waste, restrictions are placed on water use during droughts. But to make our supplies go farther, people need to be water wise all the time. Every gallon saved in times of plenty means there will be more water for the dry periods. And, as we've seen, we can get hit with a drought almost any time.

