

## **Water Cycle**

Eleanor Foerste, Natural Resources  
University of Florida IFAS Extension in Osceola County

Have you been participating in precipitation? That is a funny way of saying playing in the rain. The natural water cycle is very important for providing fresh water for our landscapes, pastures, farm crops and natural ecosystems.

We are at the end of our dry season which continues through early June. Rainfall during this season is normally associated with cold fronts that move in from the north, bringing severe weather, including thunderstorms and tornados. You may recall the weather alert going off frequently about a month ago.

June is the beginning of our rainy season and hurricane season. Afternoon thunder showers become the norm. The summer pattern change is due to onshore breezes blowing in from the east and west coast carrying moist air over land. As land heats up, water evaporates and moist, hot air rises above it. The moisture creates towering, white puffy cumulus clouds. When they are heavy with moisture, they are dark gray and known as cumulonimbus clouds. Severe thunderstorms with rain, lightning, high winds and hail are associated with these high rising clouds. The top flattens out and creates an anvil shape in the direction the storm is moving.

Depending on the strength of the onshore breezes, thunderstorms may move across our county from the Atlantic Ocean on our east coast, which is most common, or sometimes from the west coming in from the Gulf of Mexico. This is typical every afternoon and result in short periods of thunder, lightning and hard rain. Then, just as quickly as the storm moved in, it is gone and the sun comes out evaporating the moisture back into clouds.

When rain falls on the ground, it is known as stormwater, and can either flow across the surface as runoff or soak into the soil to be used by plant roots.

A watershed is an area where all the water that falls as rain flows into a central water body. We don't have much topography, but slight surface elevation changes allow stormwater to flow downstream and collect into a

water body like a ditch, creek, pond or lake. Your yard is in a neighborhood and is part of a watershed where all the rainfall that does not soak in flows to a central place. Newer communities have many roadside pipes and drainage structures to carry rainfall off of rooftops, driveways and roads into stormwater ponds but in older neighborhoods, stormwater flows through ditches and canals into one of our lakes.

Osceola County is known as the headwaters of two important watersheds, the Kissimmee-Okeechobee-Everglades and the St. Johns River. The rain that falls in the west part of the county flows into the Kissimmee River Valley, moving south from higher ground around Shingle Creek, Bonnet Creek, Reedy Creek, and Boggy Creek. The areas around Lake Nona, Lake Hart and Lake Mary Jane are also part of this system that flows to the south. We are the headwaters of the Everglades and the Florida Keys, through a series of lakes including East Lake Tohopekaliga, the Alligator Chain of Lakes, Lake Tohopekaliga, Lake Cypress, Lake Hatchineha, Lake Kissimmee, the Kissimmee River and Lake Okeechobee. Water flows to the ocean through the St. Lucie or Calosahatchee River or the Everglades.

There is high soil ridge that runs north and south east of Harmony, so rain that falls in that area on the east side of the county flows to the east and north into the St. Johns River basin.

Home gardeners and farmers know the value of managing stormwater so you have water when and where you need it during the dry season. It is also important to know what can grow in wet areas that don't drain well during the rainy season.

Allow as much rainwater as possible to soak into the ground in your own yard so your plants can use it before it flows off your property. Direct the flow from gutter downspouts away from the foundation of the house onto lawns and landscape beds instead of paved areas. You can collect rainwater off the roof in rain barrels or complex cisterns for use during the dry season. During the summer rainy season, you will likely have more than you need. Create a rain garden in wet areas using plants that naturally tolerate soggy soils.

Weather produces rain for our home gardens and landscapes as well as our natural ecosystems. Keep what freshwater you can in your yard before it begins that long flow downstream to the sea.