What to Expect in the Rainy Season

Frequently Asked Questions

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In the southern half of Florida, the wet season is typically mid-May through October when 70 percent of the year's rain falls. Flooding may happen when large amounts of rain occur over a short period of time or from a single, heavy storm, tropical system or hurricane. Even with effective water management systems in place, standing water may still occur during and after extreme events. Residents should heed National Weather Service notifications regarding flash flood watches and warnings.

Q: Who provides rainfall drainage and flood control for my neighborhood?

A: Effective flood control is achieved through a shared, interconnected drainage system:

- Local neighborhood ditches and swales operated by homeowners associations or local governments carry excess stormwater to secondary canals.
- Secondary canals operated by local water control districts, cities or counties connect and carry excess water to the primary canal system.
- Primary (regional) canals and structures operated by the South Florida Water Management District (SFWMD) convey water to storage areas or discharge to the coast.

To function properly, all systems must be kept in good working order. Local water management designs can vary widely from community to community, and some older neighborhoods may have very limited drainage. Even the best system can be overwhelmed at times by extreme downpours.

South Florida's <u>primary water management system</u> consists of approximately 2,100 miles of canals and 2,000 miles of levees/berms, more than 600 structures and 625 culverts, and 70 pump stations. To protect regional water supplies and alleviate potential flooding throughout the SFWMD's 16-county jurisdiction, weather conditions and water levels are monitored around the clock. In addition to headquarters water control operations in West Palm Beach, trained work crews located at eight field stations ensure year-round system readiness and emergency response when needed.

Q: Who is responsible for operating my neighborhood drainage system?

A. Local neighborhood canals, lakes and ponds throughout South Florida are typically maintained by a homeowners association (HOA), a local water control, drainage or improvement district; or a city or county government. If you are a member of an HOA, that should be your first point of contact. To determine if you are within the jurisdiction of a water control or drainage district, check your annual property tax bill to see if one

of these special taxing districts is listed there. Otherwise, check with your local city or county government to see if they manage any water control facilities in your community.

Q: Who do I call to report local flooding concerns?

A: To report <u>excessive</u> flooding or damaged or blocked water control structures in your area, **call your homeowners association**, **local drainage district or county**. If you have a dire health or safety emergency, call 911 for immediate assistance.

Because it is part of the permitted drainage system design, you do <u>not</u> need to contact the SFWMD to report instances of standing water in streets, yards and driveways. Allowing the water to temporarily pond in these areas helps prevent water from entering homes.

Q: What action does the SFWMD take during the rainy season?

A: Standard Actions - In preparation for the rainy summer months, the South Florida Water Management District inspects and maintains its culverts, spillways, pump stations and canal banks to ensure the system is in top operating condition. The Operations Control Center is staffed 24/7 to monitor and remotely operate the primary water management system as water levels change due to rainfall. Historical and real-time data, weather forecasts and actual rainfall amounts are used in determining optimum water levels in the primary flood protection canals.

Before/During Storm Actions – In advance of a specific, forecasted heavy rainfall event (including a tropical storm or hurricane), water levels in canals in the potentially affected area(s) may be temporarily lowered. This action creates short-term capacity within the primary system to accommodate the expected rainfall. When the water level reaches a certain point, structures convey the excess water into storage areas or for release to the coast. A number of factors determine just how low the canals will be drawn down, and it can vary from storm to storm.

In addition to the canal level adjustments, field crews are dispatched to conduct inspections and to ensure that adequate fuel supplies for pump stations and other equipment are readily available. During and after a storm, control gates on structures are opened as needed to facilitate flows in the regional canals. District canal gates open from the bottom, so it may not always be obvious when the gate is in operation. Regional water managers also work with local drainage districts and counties to help maximize flows from neighborhood systems into the primary canals where the water is then directed to storage areas or out to the coast.

Timely regional water management information is always available on the District's website (www.sfwmd.gov) and through its Twitter feeds (@SFWMD and @SFWMD and www.sfwmd.gov).

Q: Should I be concerned that neighborhood yards, streets and parking lots often flood during and after heavy rains?

A: No. After a heavy rain, water in streets, swales, yards and low-lying areas can be expected. These areas are designed to purposely store and convey water to function as critical components of neighborhood drainage facilities, helping to keep water away from homes and businesses. Floodwaters typically recede quickly. However, during the summer rainy season, especially following heavy rains, water may take longer to subside as the ground is already saturated. As it slowly soaks into the ground, the water is recharging aquifers, which benefits our water supplies.

Q: Can my community be affected by heavy rainfall in other areas?

A: Yes. Because the local, secondary and primary flood control systems are interconnected, rainfall in communities upstream, downstream or near your community can affect how quickly runoff drains. Even if it doesn't look as if your neighborhood is in danger of flooding, communities upstream or downstream may be experiencing local problems, which could impact the timing of flood relief in your area.

Q: How long does it take for the standing water to recede?

A: That depends on a variety of influences. Runoff naturally flows slowly across South Florida's almost flat landscape. If the ground is relatively dry, the water may seep into the ground fairly quickly. If the ground is already saturated, it may take longer for water to drain from an area affected by heavy rainfall. Also, if water flow is constricted or blocked at any point along the interconnected flood control conveyance process, it can create a bottleneck and impede water movement and drainage in one or many communities. Gravity moves most runoff in neighborhoods, although pumps are used in some areas to increase drainage or flowage rates. Homeowners associations and/or special districts are responsible for the operation and upkeep of local and secondary facilities.

Q: What should be done to ensure that my neighborhood drainage system is in good condition during the rainy season?

A: To ensure peak performance of drainage systems, property managers and residents should conduct the following inspections and maintenance:

• Grates, pipe openings and connections to culverts should be clear.

- Swales and grassy water storage areas should be within proper specifications for height, length and depth and be free of exotic plants.
- Ditches and canals should have all trash, sediment and dead vegetation removed so flow of water is not obstructed.

Additional Topics

Q: How much water does my lawn need during the rainy season?

A: Lawns and landscapes typically need to receive only three-quarters to an inch of water each week. This usually means a maximum of two hours of irrigation per week, or a maximum of 15 minutes per irrigation zone for each water application. The lawn may not need to be watered at all if it has rained during the week.

Q: Why does my neighborhood pond or lake have algal blooms during the summer?

A: In warm, calm water with high concentrations of nutrients, algae can grow rapidly and form floating, carpet-like mats on the water's surface. Algal blooms are most common during the summer and early fall when sunlight and high temperatures encourage naturally present algae cells to grow more quickly. Although scientists cannot predict when or where blooms will occur, or how long they will last, the blooms run their course then dissipate naturally.

Q: What causes the fish to die in my neighborhood pond, lake or canal?

A: Lakes, ponds, and canals in residential areas are particularly vulnerable to fish kills. Most fish kills occur when oxygen dissolved in the water drops to levels insufficient for the fish to survive. In warm, calm water with high concentrations of nutrients, oxygen can be depleted by algae blooms. Fish can also become susceptible to viral or bacterial infections when they are stressed by low oxygen levels. Fish kills occur most often in the warmer months from May through September. Very few fish kills result in a total loss of the population. Remaining fish can usually reproduce and quickly restore the population.

The Florida Fish and Wildlife Conservation Commission monitors fish kills.