

Summer rains cause stormwater issues

By Hector Flores

The summer rainy season is upon us and we've already seen localized rainfall totals exceeding five inches from thunderstorms. Heavy rain not only poses a driving hazard, it can overwhelm stormwater drainage systems and cause road flooding.

Charlotte County developed a master stormwater management plan in 1996, following a pair of 100-year storms in 1993 and 1995. The county has 73 drainage basins and more than 370 miles of canals that drain into surface water bodies such as Charlotte Harbor, Lemon Bay, and Shell and Prairie creeks. The plan ranked these basins, identified needed infrastructure improvements and recommended funding mechanisms.

Since the plan's adoption, the county has replaced nearly four dozen stormwater management structures and performed maintenance on hundreds of miles of swales, culverts, drainage pipes and canals.

One of the most visible stormwater drainage features in the county are swales or ditches in front of homes. In addition to conveying stormwater to control structures, canals and holding ponds, these swales also hold water long enough for it to drain into the soil. This process not only filters out pollutants before the water reaches, creeks, rivers, bays and the harbor, it recharges our aquifers, massive underground reservoirs.

During the summer rainy season, one of the most frequent complaints we receive is that residents' swale are not draining. In Charlotte County, we prioritize stormwater drainage into three categories: water threatening a home, flooding on roads or sidewalks and nuisance water in swales. The first two are clearly public safety issues involving potential loss of life or property damage. The third is about educating the public about how swales work and managing expectations.

We advise residents concerned about standing water in swales to use the 72-hour rule. Properly functioning swales should convey water or allow it to be absorbed into the ground within 72 hours of a rainfall event. During this rainy season, in which we've had several heavy rainfalls spread out over several days, most residents have witnessed swales fill and empty during the 72-hour post-storm period. When it gets tricky is when we get several straight days of rainfall during which swales stay wet.

When this happens, we review complaints submitted to us, track current and historical data to determine potential issues and conduct inspections or remedial work to address areas where nuisance water could escalate into one of the more serious categories that impact public safety. In 2021 alone, Public Works crews performed maintenance on 1.5 million square feet of swales, cleared more than 2,600 culverts and spent more than 1,600 hours repairing catch basins.

We continually monitor known stormwater drainage problem areas, especially where tidal influences can impede water flow and where debris buildup can block major drainage structures, but we also rely on public input to help us identify and resolve issues. If you have a

drainage concern, please call Charlotte County Public Works at 941-575-3600. You can also download our app from your device's app store or visit CharlotteCountyFL.gov and click Contact Us.

Readers may reach Charlotte County Administrator Hector Flores at
Hector.Flores@CharlotteCountyFL.gov

###