



For More Information

The Fresno Metropolitan Flood Control District was created by Fresno County voters in 1956 for the purpose of protecting lives and property in the Fresno-Clovis metropolitan area. To find out more about the District's programs, please visit www.fresnofloodcontrol.org. Specific questions can be directed to the Operations Department, at (559) 456-3292.



Fresno Metropolitan Flood Control District • (559) 456-3292 • www.fresnofloodcontrol.org
 Urban Drainage • Flood Control • Groundwater Recharge • Storm Water Quality • Recreation

Fresno Metropolitan
 Flood Control District
 5469 E. Olive Avenue, Fresno CA 93727



STORM WATER FACTS



URBAN STORM DRAIN SERVICE

The Fresno Metropolitan Flood Control District is responsible for managing urban stormwater runoff in the Fresno/Clovis metropolitan area. The District was formed in 1956 to address serious flooding and public health concerns resulting from inadequate urban drainage.

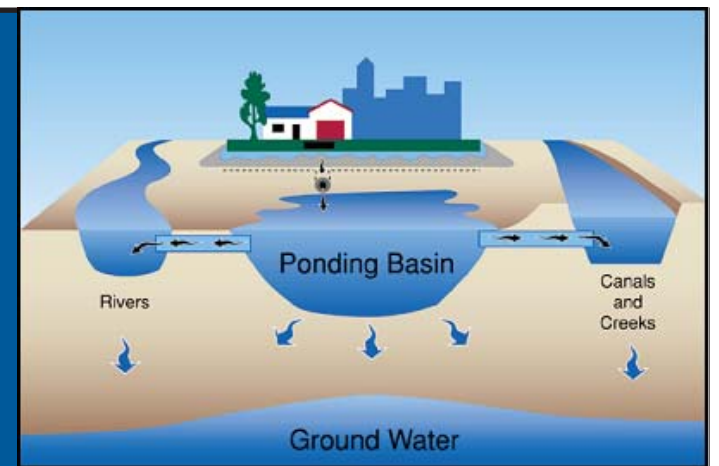
The urban storm drainage system is composed of the following elements:

- **Curbs and Gutters** - Homes and businesses are typically designed to drain toward the street. Streets, curbs, and gutters are sloped to move water along streets and into storm drain inlets.
- **Storm Drain Inlets** - Storm water runoff is conveyed through streets to storm drain inlets. Inlets are most frequently side openings in the curb that capture and collect water from the street.



- **Pumps** - Frequently pumps are used to move water from one basin to another.

Storm water runoff is collected in more than 120 basins in the Fresno-Clovis area. This allows the water to percolate back into the groundwater aquifer. In some cases, water from the basins needs to be drained to creeks or canals.



- **Siphons** - Moving water across major streets without disrupting traffic is a bit of a trick. Rather than directing water through a valley gutter, a pipe is installed underground to move water across the street. Water will drain in at one side of the street and flow out on the other side, then down the street through the curb and gutter system.
- **Underground Pipelines** - Water drains from the street into an underground pipeline. Pipelines flow to either a retention basin or a pump station.



- **Retention Basins** - Retention basins hold water and allow it to percolate to the groundwater reservoir. This aids in replenishing the Fresno/Clovis area's groundwater table. In areas without storage basins, storm water must be pumped to canals that carry water out of the metropolitan area.

Look inside for answers to some commonly asked questions...





Why Is Water In the Gutter During Non-Rainfall Times?

Water in the gutters can be from one of several sources.

Over Watering Landscaping

During the summer, there is typically a small amount of water flowing in the gutter; this is usually due to over watering of landscaping and car washing.



Maintenance of our Water System

Sometimes you may notice a large amount of water flowing in your gutter when there is no rainfall. The most common sources of the water are discussed below:

Pool Draining

The District get hundreds of requests every year from people wishing to drain their swimming pools. Swimming pool water is usually pumped to the gutter. The draining of a swimming pool should not cause the gutter to flow full, but can account for a large amount of flowing water in the gutter. In most areas, this water is captured in a basin and recharged to the ground water table.

If you are a water customer of the City of Fresno, you must obtain a permit before draining your pool. Call 621-5480 for more information.

Hydrant Flushing

Water Departments flush fire hydrants from time to time to evacuate sand from the water lines. Sand in water lines is one of the main reasons shower heads and faucets clog up.

Well Flushing

Some drinking water wells need to be treated with Granular Activated Carbon (GAC) filters. When new carbon is installed, the filters need to be back flushed to remove fine sediment and to maintain operating efficiency. The water used to back flush the filters may be discharged to the street and captured in a basin for recharge into the aquifer.

Water Well Development

Water wells are constructed by boring a vertical hole in the ground and installing a metal casing. A pump is then set into the casing and connected to the water delivery system. During this process, dirt will fill the well casing. The dirty water must be removed before the pump is connected to the water delivery system to ensure that the well only pumps clean water into the domestic water supply system. Water used during well development is often discharged to the gutter and disposed of in the drainage system.

Moving Water Between Basins

Sometimes after heavy rain events storm water must be moved from one basin to another in order to preserve storm water storage capacity. When this need arises in an area where neighboring basins lack connecting pipeline, storm water is moved along the gutter to the nearest storm drain inlet.



Who Is Responsible for Maintaining the System?

The District's urban storm drainage system begins inside the **storm drain inlet** and ends at the **retention basin or pump station**. The District performs routine maintenance on this system to provide maximum protection. In the event a storm drain inlet or pipe is clogged and causing the street to flood, the District will unclog the pipe and restore drainage service.



The conveyance of storm water to storm drain inlets through streets and gutters is the responsibility of the jurisdictional street authority. The City of Fresno Street Maintenance Division (621-1492), City of Clovis Public Utilities Dept. (324-2600), and County of Fresno Road Maintenance Division (262-4240) are responsible for maintaining streets and gutters in the Fresno/Clovis area.



What Causes Standing Water In My Neighborhood?

The Fresno/Clovis area is generally very flat. Streets and concrete gutters must be carefully installed to provide enough of a slope to avoid standing water. Over time the gutter can settle or tree roots can lift the curb, both of which can obstruct flow in the gutter. When severe displacement occurs, the street maintenance agency will replace displaced concrete. Typically projects are given priority based on the available funds and the amount of displacement and attendant hazard.



Here's What You Can Do To Help

- **Conserve Water** - use a shut off nozzle on your hose to avoid wasting water, set your sprinkler timers so you don't over water.
- **Periodically Sweep Standing Water** - This helps to eliminate algae growth and mosquito breeding.
- **Provide Access to Street Sweepers** - On the days your neighborhood street sweeper comes through, keep the gutter clear of vehicles, garbage and recycling containers.
- **Deep Water Street Trees to Encourage Deep Roots** - If possible use drip irrigation systems to water trees near the street. This encourages roots to grow deep into the soil rather than near the surface.
- **Keep Gutters Clear of Trash and Debris** - Put litter in trash cans to keep it from clogging storm drains and keep our community clean.