

Carrollton Environmental Services
THE STORMWATER READER

April 2018

The Sanitary Sewer System and the Storm Sewer System

Is there a difference between the two systems? Of course!

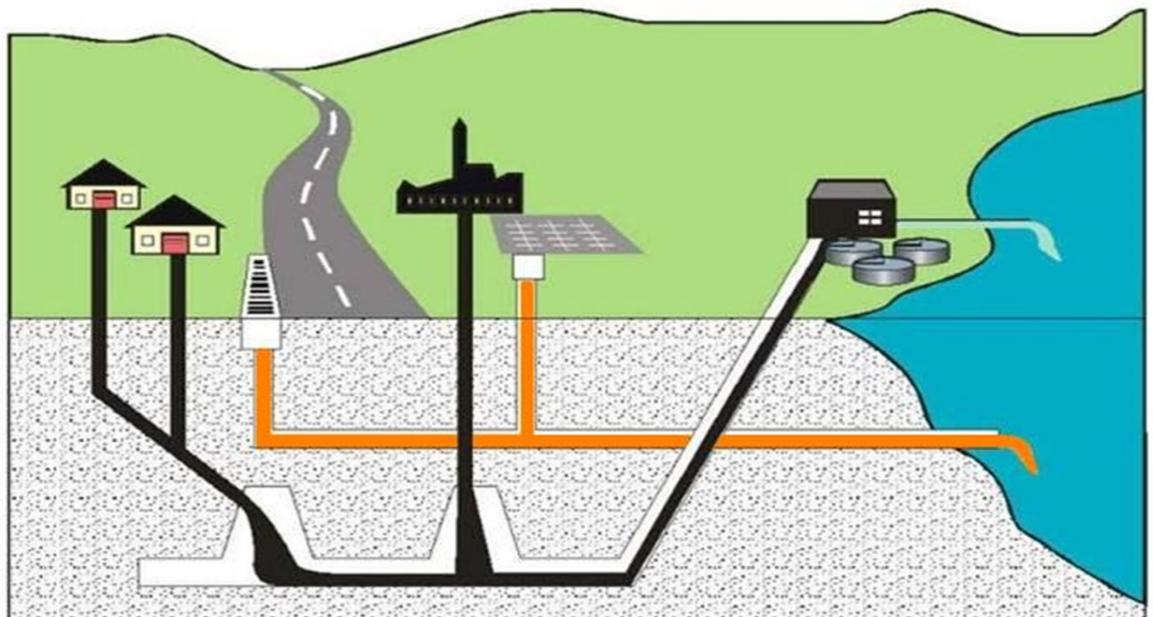
The sanitary sewer system is the system inside of our homes and businesses. Every time we flush the toilet, run the dishwasher, or take a shower, that wastewater flows through the sanitary sewer system. In Carrollton, this wastewater flows through the sanitary sewer system to a wastewater treatment plant. The wastewater treatment plant treats or cleans the water before releasing the clean water back into our surface waters (creeks, lakes, rivers).

The storm sewer (drain) system is completely separate. The storm drain system removes rainwater from streets and parking lots to prevent flooding. Rain water flows into the storm inlets (holes in the side of the street or parking lot) and is discharged directly into our surface waters. The water that enters the storm drain system does NOT receive any kind of treatment. Therefore, whatever the rain picks up from our parking lots, streets, or grass, goes directly into our surface waters! Pet waste, motor oil, fertilizer, dirt and many other items will get picked up by rainwater and discharged into our nearest pond, creek, lake or river. Yuck! Of course the sanitary sewer system can impact our storm sewer system. If the sanitary sewer gets clogged then sewage will flow on the ground and into our storm sewer system and our waterways!

Did You Know?

The earth never loses water or gains water, the water gets recycled!

Through our natural water cycle the earth has recycled its water for millions of years!



Sanitary Sewer

Storm Sewer

↓
Gets treated

↓
DOES NOT GET TREATED



Rain, Watersheds, and Pollution!

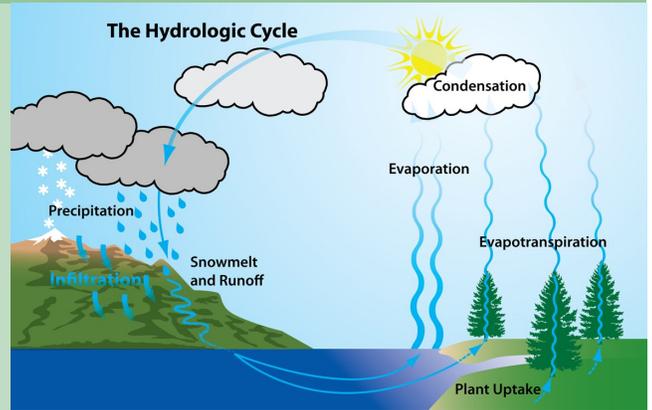
Have you ever wondered what happens to rain after it hits the ground?

Imagine you were able to hop on and ride a rain drop. First, the rain drop crashes to the ground and connects with other raindrops. Some raindrops quickly soak into the ground. The raindrops not soaked up race downhill toward a nearby surface water. As the raindrops roll over plants, their speed slows down. Some of the raindrops are absorbed by these thirsty plants. The raindrops not absorbed by plants, will continue moving downhill until they finally reach a surface water. In the surface water, they will join other raindrops that also traveled downhill.

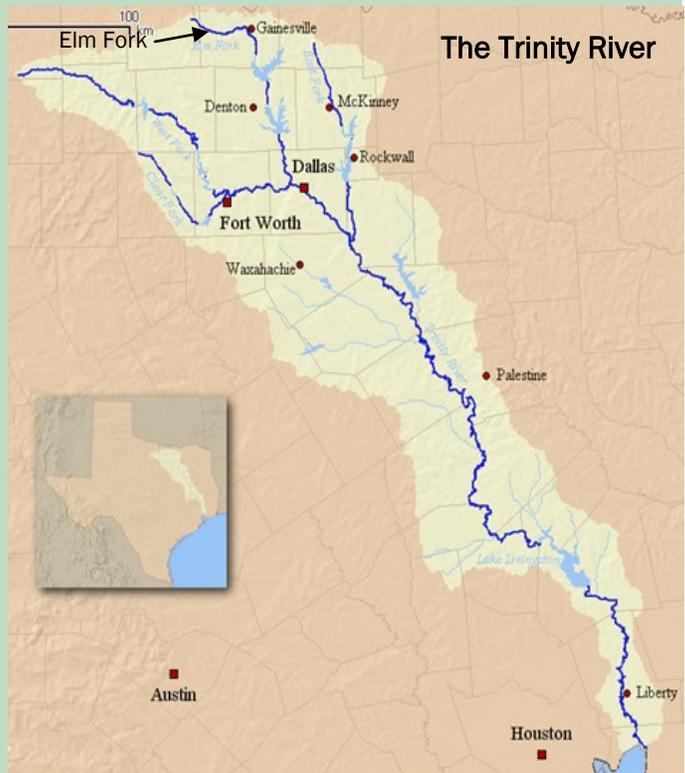
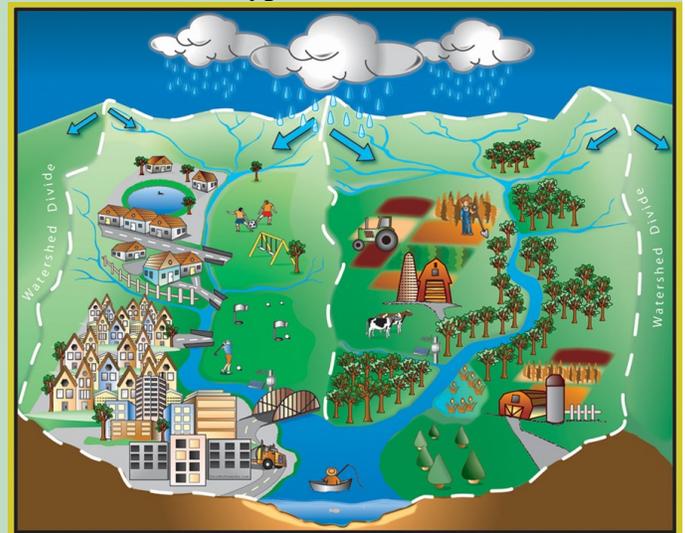
The area of land raindrops roll over is called a watershed. A watershed, also known as a drainage basin, is an area of land where all water drains to a central point like a lake, river, or stream. When rain flows over a surface, it will eventually make its way to that central point. The speed the water drains to the central point depends on various factors such as type of soil, amount of plant life, and the steepness of the terrain. The boundary of a watershed is drawn by the natural landscape. In Carrollton, our watershed is the Elm Fork of the Trinity River. And more specifically the Elm Fork below Lewisville Lake.

Unfortunately, we have altered our landscapes, jeopardizing the health of many watersheds. Many of our vegetated landscapes have been replaced with endless miles of highways, houses, and parking lots. Replacing vegetation with hard surfaces changes the speed and quality of the water flowing through the watershed. In

many areas, rainwater does not slow down and no longer soaks into the ground. Many activities that we do can impact our watersheds like overusing fertilizers, not cleaning up after our pets, and not repairing leaky cars. All of these pollutants can wash away and eventually work its way to the nearest waterway.



A Typical Watershed



MCHUMOR.com by T. McCracken

