

SANITARY VS. STORM SEWER

Did you know that communities typically have two sewer systems? Most have both a storm sewer and a sanitary sewer.

Storm sewers redirect runoff from rain or snow events into a system of catch basins and pipes, while sanitary sewers collect wastewater from toilets and taps and send it to a treatment plant to be cleaned.

Though less common, some communities have combined systems. These Combined Sewer Overflows, or CSOs, are older systems but still remain in use in some areas. This “one-pipe system” combines both surface runoff (stormwater) with wastewater (sewage) and leads to a treatment plant for processing. However, these systems were designed to overflow when a heavy rain or snow melt event backlogged the system. When this occurs, the mixture of stormwater and raw sewage flows directly into a river, stream or lake.

Untreated sewage entering our surface water had obvious impacts to the water quality and ecosystems that depend on these habitats.

To combat this, modern storm sewers have moved away from the “one pipe system” of the past and separate wastewater from storm runoff. Most of the storm sewers in the Greater Lansing area are what we call Municipal Separate Storm Sewer Systems (MS4s). Here, the sanitary sewer still directs sewage to the treatment facility, but stormwater is diverted directly to water bodies.

The MS4 system reduces the risk of large quantities of sewage entering the surface water, but since stormwater doesn't go to the treatment plant, it has it's own risks and must be “treated” in other ways. MS4s rely on catch basins and built infrastructure to filter out large pieces of litter, sediment, and oils, but these systems only work if they are cleaned, maintained, and understood by the public. If you see someone pouring anything down a storm drain, report it! Also report any clogged or dirty catch basins to your municipality.

Here are some things you can do to help maintain our sewer systems and keep our environment clean:

- Do not pour anything into storm sewer drains.
- Clean up spills and don't wash them into a drain.
- Keep storm sewer drains clear of leaves, grass clippings, sticks and litter.
- Don't pour paints, solvents, cleaners, etc. into any drain – take it to your local county household hazardous waste collection.
- Repair any leaks and drips from your vehicle.
- Minimize the use of herbicides and pesticides.
- Collect and recycle motor oil.

