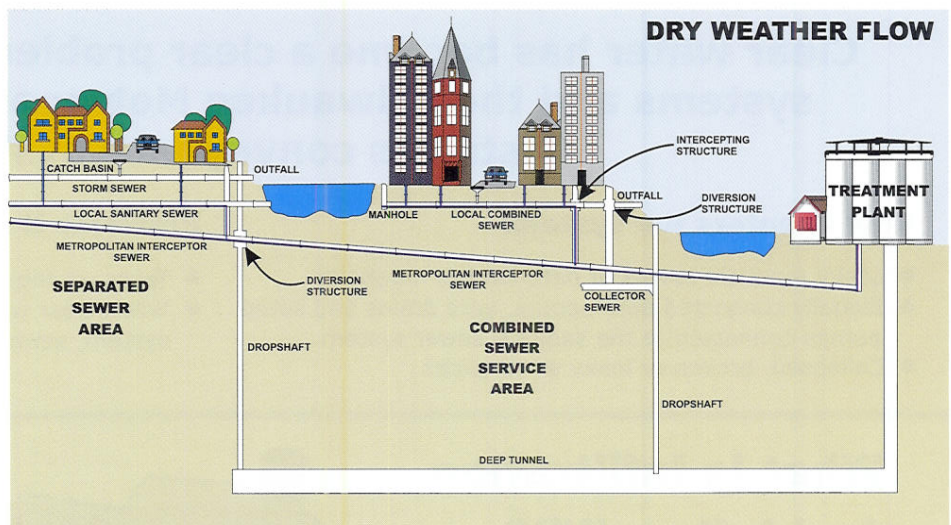


Sewer Operations Under Different Weather Conditions

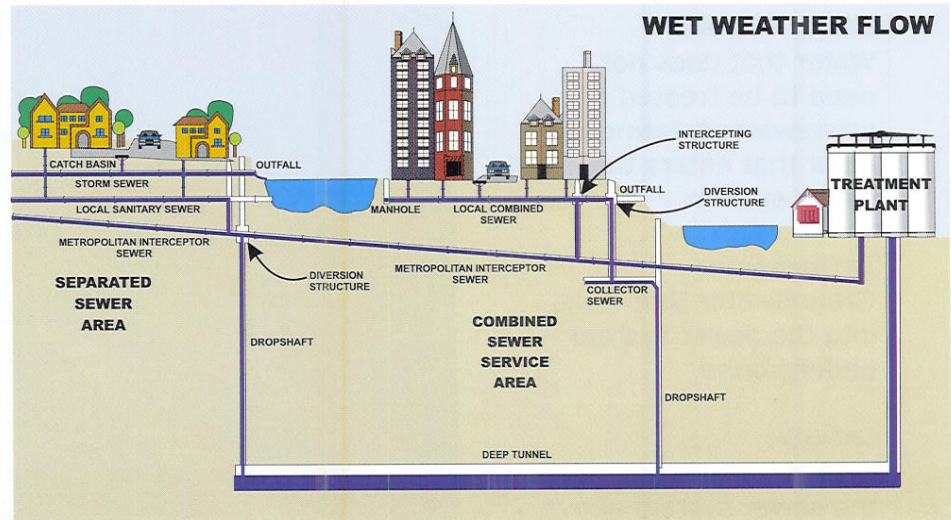
Separated Sewer Area: Sanitary sewage travels from property owners' lateral sewers into local sanitary sewers, owned by the municipality. Local sanitary sewers then empty into the metropolitan interceptor sewers (MIS), owned by MMSD. The MIS conveys flow to Jones Island or South Shore for treatment. Clean water is discharged to Lake Michigan, while solids removed during treatment are turned into useable products such as Milorganite, Agri-Life and lightweight aggregate. There is no flow in storm sewers.

Combined Sewer Area: During dry weather, the combined sewer area operates the same as the separated sewer area.



Separated Sewer Area: Storm sewer flow is discharged to waterways through local storm sewers. Sanitary sewage travels from property owners' lateral sewers into local sanitary sewers, owned by the municipality. Local sanitary sewers then empty into the MIS. The MIS conveys flow to Jones Island or South Shore for treatment. Clean water is discharged to Lake Michigan. If the plants cannot handle all of the flow in the MIS, it is diverted to the deep tunnels through the collector sewer and dropshaft, where it is stored until the plants have the capacity to treat it.

Combined Sewer Area: Sanitary sewage travels from property owners' lateral sewers into local combined sewers, owned by the municipality, where it mixes with stormwater. Local combined sewers then empty into the MIS, owned by MMSD. The process is then the same as in the separated sewer area.



Separated Sewer Area: Storm sewer flow is discharged to local waterways through local storm sewers. Sanitary sewage travels from property owners' lateral sewers into local sanitary sewers. Local sanitary sewers then empty into the MIS. The MIS conveys flow to the treatment plants. If local sanitary sewers or the MIS cannot handle all of the flow caused by excessive infiltration and inflow of clear water into the sanitary sewer system, it is bypassed to nearby waterways at combined sewer outfalls. Flows are also diverted to the deep tunnel, where it is stored until the plants have the capacity to treat it.

Combined Sewer Area: Sanitary sewage travels from property owners' lateral sewers into local combined sewers, where it mixes with stormwater from runoff. Flow from local combined sewers empties into the MIS, and excess flow is bypassed to nearby waterways at combined sewer outfalls. The MIS conveys flows to the plants for treatment. The plants will not be able to handle all of the flows caused by excessive infiltration and inflow; therefore, the excess is diverted to the deep tunnel, where it is stored until the plants have capacity to treat it. If the deep tunnel is filled, it is discharged to local waterways. Deep tunnels are pumped to plants for treatment when capacity is available.

