

Watersheds Within The St. Louis County Plan Area

Major Watersheds

St. Louis county storm water drains into three major watersheds: the Mississippi River, the Meramec River, and the Missouri River as illustrated below. All storm water runoff from the Plan Area ultimately enters the Mississippi River. The Mississippi River forms the eastern boundary of the southernmost and northernmost portions of the Plan Area with the remainder of the Plan Area entering the western boundary of the City of St. Louis and its combined sewer system.

1. Mississippi River Watershed

Much of the 35 mile length of the Mississippi River between the Meramec and the Missouri Rivers serves as a major commercial barge staging area and transportation corridor for the upper Midwest. Water from the Mississippi River is withdrawn for public drinking water supply purposes by the City of St. Louis. The average annual Mississippi river flow rate past St. Louis is 190,100 cubic feet per second for the water years 1993 – 2001.



Figure 1 Major Watersheds

Approximately 92 square miles of the Plan Area, south and west of the City of St. Louis, drain to the Mississippi south of the City. The majority of the watershed drainage is via the River Des Peres drainage system. Minor watersheds within the area include Deer Creek, Gravois Creek, Martigney Creek, and the University City Branch of the River Des Peres. There are approximately 165 miles of open channel natural and man-made streams in this area.

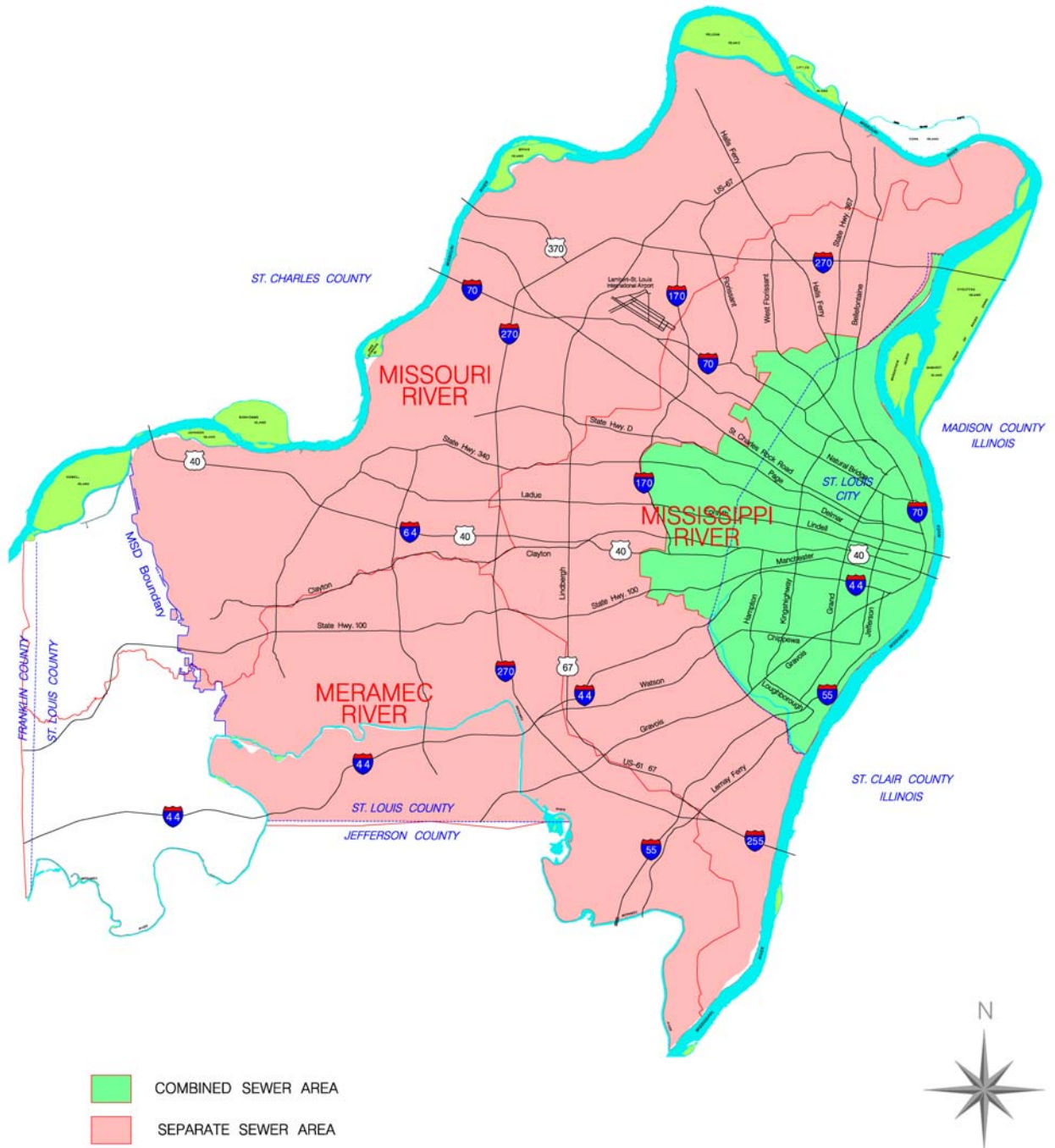


Figure2 Location of Combined Sewer Area

This area is highly developed and is estimated to be 33.6% impervious. Land use in the River Des Peres service area is primarily residential with some commercial and industrial development and public use. The area is approximately 95% developed and is not expected to change much in the future.

2. Meramec River Watershed

Approximately 48 miles of the Meramec River, starting at its mouth, lies within or borders the Plan Area on the south. The Meramec is a major recreational asset for the St. Louis area. Water from the Meramec River is withdrawn for public drinking water supply purposes for south St. Louis County and various communities. The average annual Meramec River flow rate at the USGS gage near Eureka (just upstream of the Plan Area) is 3,226 cubic feet per second.

The Meramec River portion of the Plan Area is located in southwest and southern St. Louis County and contains approximately 125 square miles. Major watersheds within the service area include Antire Creek, Fenton Creek, Fishpot Creek, Grand Glaize Creek, Kiefer Creek, Mattese Creek, Williams Creek, and Yarnell Creek. There are approximately 543 miles of open channel streams in this area.

3. Missouri River Watershed

Approximately 45 miles of the Missouri River, starting at its mouth, forms the northern boundary of the Plan Area. Like the Mississippi, the Missouri serves as a commercial barge transportation corridor. Water from the Missouri River is withdrawn for public drinking water supply purposes for the City of St. Louis and for western and northern St. Louis County. The average annual Missouri River flow passing the St. Charles USGS gage is 87,500 cubic feet per second.

Approximately 150 square miles of the Plan Area are tributary to the Missouri River. Major watersheds within the service area include Bonhomme Creek, Caulks Creek, Coldwater Creek, Cowmire Creek, Creve Coeur Creek, and Fee Fee Creek. There are approximately 600 miles of open channel streams in this area consisting of natural and man-made systems.

Minor Watersheds

Streams tributary to the three major watersheds in the Plan Area were studied by FEMA for the St. Louis County Flood Insurance Study. The tributary streams within each major watershed are identified and described below. Additional details about each of the minor watershed characteristics can be found in Chapter 3 of the SWMP ([link](#)).



Figure 3 Tributary Streams Within the Plan Area

Mississippi River Tributaries

- *Deer Creek*
- Gravois Creek
- Mackenzie Creek
- Maline Creek
- Martigney Creek

- *University City Branch*
- *Watkins Creek*

Meramec River Tributaries

- *Fenton Creek*
- *Fishpot Creek*
- *Grand Glaize Creek*
- *Kiefer Creek*
- *Mattese Creek*
- *Williams Creek*
- *Yarnell Creek*

Missouri River Tributaries

- *Bonhomme Creek*
- *Caulks Creek*
- *Coldwater Creek*
- *Cowmire Creek*
- *Creve Coeur Creek*
- *Fee Fee Creek*
- *Mill Creek*
- *Spanish Lake*