

Missouri Department of Natural Resources  
**Total Maximum Daily Load Information Sheet**

## Stockton Branch

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### Water Body Segment at a Glance:

**County:** Cedar  
**Nearby Cities:** Stockton  
**Pollutant:** VSS  
**Source:** Stockton Wastewater Treatment Plant (WWTP)  
**Water Body ID:** 1361  
**TMDL Approved:** 2005\*



State map showing location of watershed

\* A permit-in-lieu of a TMDL for VSS was accepted by EPA in 2005

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### Description of the Problem

#### Designated beneficial uses of Stockton Branch

- Livestock and Wildlife Watering
- Protection of Warm Water Aquatic Life
- Protection of Human Health (Fish Consumption)

#### Use that is impaired

- Protection of Warm Water Aquatic Life

#### Standards that apply

- Standards for Volatile Suspended Solids, or VSS, may be found in the general criteria section of the water quality standards at 10 CSR 20-7.031(3)(A) and (C) where it states:
  - Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses.
  - Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses.

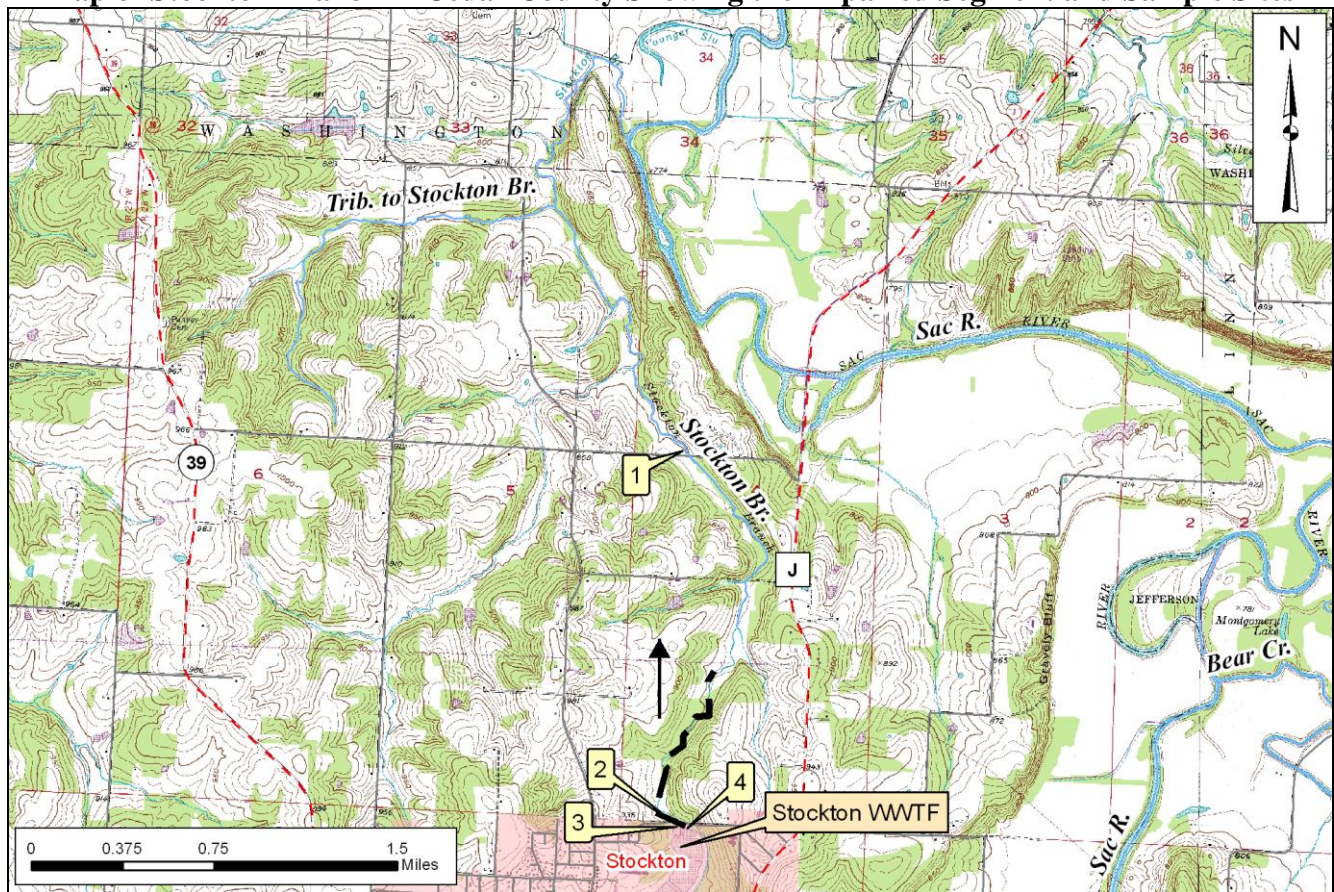
#### Background information and water quality data

Stockton Branch flows north out of the town of Stockton in Cedar County, Mo. In a stream survey by the department in 1993, Stockton Branch showed excessive suspended algae, excessive deposition of solids and reduced diversity of aquatic invertebrates (like crayfish and water insects) downstream from the Stockton Wastewater Treatment Plant, or WWTP. Volatile suspended solids, also known as organic sediment, refer to particles that are suspended in water, like algae, or those that settle out, like sewage sludge. Suspended algae contribute to water quality problems. Besides being unsightly and smelly, they block sunlight in the stream and reduce dissolved oxygen in the water. Many aquatic

organisms require high levels of oxygen to survive. In addition, these solids can settle onto the streambed where they smother natural substrates (stream bottom), aquatic invertebrate animals (like crayfish and water insects) and fish eggs.

Like all wastewater discharges in Missouri, the Stockton WWTP has to meet the requirements of a discharge permit issued by Missouri Department of Natural Resources. The city upgraded their wastewater treatment program in 2002 and 2003, but part of their new construction was destroyed when a tornado struck Stockton in the spring of 2003. The city had to reconstruct the damaged parts and their “new” operating permit was reissued March 10, 2005. **The U.S. Environmental Protection Agency accepted the permit-in-lieu of a TMDL on June 16, 2005.**

**Map of Stockton Branch in Cedar County Showing the Impaired Segment and Sample Sites**



--- Impaired Segment      → Direction of Flow

<b>Sample Sites</b>	
1 – Stockton Br. 1.7 miles below WWTF*	2 – Stockton Br. 40 yards below WWTF
3 – Stockton WWTP effluent	4 – Stockton Br. 0.1 mi ab. WWTP

**For more information call or write:**  
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 P.O. Box 176, Jefferson City, MO 65102-0176  
 1-800-361-4827 or 573-751-1300 office (573-526-6802 fax)  
 Program Home Page: [www.dnr.mo.gov/env/wpp/index.html](http://www.dnr.mo.gov/env/wpp/index.html)