The Stockton Urban Waterbodies Pathogen TMDL for Five Mile Slough, Lower Calaveras River, Mosher Slough, Smith Canal, Mormon Slough, and Walker Slough was adopted by the Regional Water Board in March 2008, and approved by the USEPA in May 2008. The TMDL addresses pathogen impairments in urban water bodies in the City of Stockton utilizing the bacterial indicators fecal coliform and E. coli.

The TMDL is being implemented through the City of Stockton and County of San Joaquin MS4 storm water permit. To comply with the TMDL, the permittees submitted a Pathogen Plan in 2004, which was subsequently updated in 2009. The Plan outlined a three-phased approach that included characterization monitoring, source identification studies, and the development and implementation of Best Management Practices (BMP) with effectiveness monitoring. Monitoring is scheduled to occur between 2004 and 2018. BMP implementation has included public education and outreach regarding proper disposal of pet waste, and inspections of facilities containing potential sources of livestock contamination.

### TMDL Waste Load Allocations

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Waste Load Allocation (MPN/100ml)</th>
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</table>
| Fecal Coliform | 200 Geometric Mean¹  
|              | 400 for 10% of samples²  |
| E. Coli     | 126 Geometric Mean³  
|             | 235 single sample max |

¹ Geometric mean concentration of not less than five samples for any 30-day period  
² During any 30-day period  
³ Geometric mean concentration of a statistically sufficient number of samples (generally not less than five samples equally spaced over a 30-day period)

### Water Quality Outcomes

- Exceedances of pathogen water quality objectives continue to occur in listed water bodies.
- Implementation of BMPs is ongoing by the permittees.
- Monitoring conducted by the permittees to date has identified pathogen contamination from sources associated with humans, dogs, and livestock.
- Phased monitoring by permittees continues. The location and frequency may change to incorporate participation in the Delta Regional Monitoring Program by permittees.

### E. Coli in Stockton Watershed*

![Graph](image_url)

* 57 samples were greater than 1000 MPN/100ml. These samples have been plotted at 1000 MPN/100ml.

### Fecal Coliform in Stockton Watershed**

![Graph](image_url)

* * 77 samples were greater than 1000 MPN/100ml. These samples have been plotted as 1000 MPN/100ml.

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**December 2015**