

## **Appendix B**

### **Waters Affected by Proposed Change to Bacteria Water Quality Standards**

Iowa waters that are designated for primary contact recreation uses such as swimming are considered impaired if they exceed the Geometric Mean (GM) criteria of 126 E. coli colonies per 100 milliliters of water during a recreational season **OR** if significantly more than 10% of the samples over a recreational season exceed the Single Sample Maximum (SSM) criteria of 235 E. coli colonies per 100 milliliters of water.

The following waters meet the GM standard but fail to meet the SSM standard for bacteria. Therefore, they have been assessed as impaired for primary contact recreation uses and included on Iowa's draft 2016 Impaired Waters List.

The Fiscal Impact Statement accompanying the proposed rulemaking states that waters impaired due to exceedances of the single sample maximum criterion will be removed from the impaired waters list if the change is adopted, eliminating the need to calculate a Total Daily Maximum Load (TMDL) for those waterbodies.

#### **Waters impaired by bacteria based on the SSM E. coli standard and need a TMDL (Category 5 of Impaired Waters list)**

**Lakes:** Water samples collected weekly from Memorial Day to Labor Day at public beaches as part of the DNR Beach Monitoring Program.

**Black Hawk Lake** – Located near Lake View in Sac County

- Denison Beach exceeded the SSM for bacteria more than 10% of the time
  - 13% in 2014
- Black Hawk Campground Beach exceeded the SSM for bacteria more than 10% of the time
  - 24% in 2014

**Brushy Creek Lake** – Located near Lehigh in Webster County

- Brushy Creek Beach exceeded the SSM for bacteria more than 10% of the time
  - 24% in 2013

**Gustafson Lake** – Located 1 mile south of Sioux Rapids in Buena Vista County

- Gabrielson Park Beach exceeded the SSM for bacteria more than 10% of the time
  - 25% in 2010
  - 17% in 2012
  - 14% in 2013
  - 17% in 2014

**Iowa Lake** – Located north of Millersburg in Iowa County

- Iowa Lake Beach exceeded the SSM for bacteria more than 10% of the time
  - 30% in 2009

**Kent Park Lake** – Located west of Tiffin in Johnson County

- F. W. Kent Park Beach exceeded the SSM for bacteria more than 10% of the time
  - 28% in 2012
  - 47% in 2014

**Lacey Keosauqua Lake** – Located 1 mile south of Keosauqua in Van Buren County

- Lacey Keosauqua Lake Beach exceeded the SSM for bacteria more than 10% of the time
  - 25% in 2010
  - 18% in 2011

**Lake Ahquabi** – Located south of Indianola in Warren County

- Lake Ahquabi Beach exceeded the SSM for bacteria more than 10% of the time
  - 28% in 2014

**Little River Watershed Lake** – Located NW of Leon in Decatur County

- Little River Recreation Area Beach exceeded the SSM for bacteria more than 10% of the time
  - 14% in 2010
  - 33% in 2011

**North Twin Lake** – Located north of Rockwell City in Calhoun County

- North Twin Lake West Beach exceeded the SSM for bacteria more than 10% of the time
  - 13% in 2013
- Treman Park Beach exceeded the SSM for bacteria more than 10% of the time
  - 13% in 2012
  - 40% in 2013
  - 13% in 2014

**West Okoboji Lake** – portion of lake south of Manhattan Beach on the western shore and Omaha beach on the eastern shore

- Gull Point Beach that exceeded the SSM for bacteria more than 10% of the time
  - 28% in 2011
  - 20% in 2014

**River and Stream segments:** Water samples collected monthly as part of the DNR ambient stream monitoring program or other studies. Only water quality data collected during the recreational season from March 15 – November 15 is used to determine if primary contact recreational uses are supported.

**Boone River** – Impaired segment is south of Webster City to confluence with Des Moines River north of Stratford and passes through Bell’s Mill Park, which is managed by Hamilton County Conservation Board.

- 28% (7 of the 25 water samples) collected during the recreational season over the 3 year assessment period from 2012 – 2014 exceeded the SSM for bacteria

**Des Moines River** – Two impaired segments from the confluence with the Boone River in Webster County north of Stratford downstream through Boone County, passing through Ledges State Park, to the upper end of Saylorville Reservoir north of Des Moines in Polk County.

- 19% (7 of 36 water samples) collected during the recreational season over the 3 year assessment period 2012 – 2014 exceeded the SSM for bacteria

**Des Moines River** – Two impaired segments from the mouth at the Mississippi River in Lee County upstream to the confluence with Indian Creek in Van Buren County.

- 25% (6 of 24 samples) collected during the recreational season over the 3 year assessment period 2012 – 2014 exceeded the SSM for bacteria

**Cedar River** – Three impaired segments pass through Black Hawk Park on the north side of Cedar Falls in Black Hawk County and upstream to low head dam in Waverly in Bremer County.

- 21% (5 of 22 samples) collected during the recreational season over the 3 year assessment period 2012 – 2014 exceeded the SSM for bacteria

**Iowa River** – Impaired segment is from confluence with Long Creek in Louisa County upstream to the confluence with the Cedar River near Columbus Junction in Louisa County.

- 29% (6 of 21 samples) collected during the recreational season over the 3 year assessment period 2004 – 2006 exceeded the SSM for bacteria

**Wapsipinicon River** – Two impaired segments from the mouth at the Mississippi River between Clinton and Scott Counties upstream to confluence with Rock Creek in Clinton County.

- 25% (6 of 24 samples) collected at the DNR ambient station near DeWitt during the recreational season over the 3 year assessment period 2012 – 2014 exceeded the SSM for bacteria.
- 16% (3 of 19 samples) collected at the USGS station near DeWitt during the recreational season over the 3 year assessment period 2012 – 2014 exceeded the SSM for bacteria.

**East Tributary to Union Grove Lake** – Impaired from mouth at Union Grove Lake upstream to headwaters in Tama County.

- 25% (3 of 12 samples) collected during the recreational season 2008 exceeded the SSM for bacteria
- 33% (4 of 12 samples) collected during the recreational season 2009 exceeded the SSM for bacteria

**Unnamed Tributary to Walnut Creek** – Impaired segment is from Holiday Lake to confluence with Walnut Creek in Poweshiek County.

- 29% (6 of 21 samples) collected during the recreational season over the 3 year assessment period 2004 – 2006 exceeded the SSM for bacteria

## **Waters impaired by bacteria based on the SSM E. coli standard where a watershed cleanup plan (TMDL) has been approved by EPA (Category 4 of Impaired Waters list)**

**Lakes:** Water samples were collected weekly from Memorial Day to Labor Day at public beaches as part of the DNR Beach Monitoring Program.

**Beeds Lake** – located 1 mile north of Hampton in Franklin County

- Beeds Lake Beach exceeded the SSM for bacteria more than 10% of the time
  - 29% in 2012
  - 47% in 2013
  - 47% in 2014

Note: A TMDL for bacteria was prepared by IDNR and approved by EPA in 2006.

**Big Creek Lake** – located near Polk City in Polk County

- Big Creek Lake Beach exceeded the SSM for bacteria more than 10% of the time
  - 55% in 2010
  - 29% in 2011
  - 13% in 2013
  - 13% in 2014

Note: A TMDL for bacteria was prepared by IDNR and approved by EPA in 2011.

**Lake of Three Fires** – located 2 miles NE of Bedford in Taylor County

- Lake of Three Fires Beach exceeded the SSM for bacteria more than 10% of the time
  - 13% in 2012
  - 44% in 2014

Note: A TMDL for bacteria was prepared by IDNR and approved by EPA in 2010.

**River and Stream segments:** Water samples collected monthly as part of the DNR ambient stream monitoring program or other regular monitoring efforts. Only water quality data collected during the recreational season from March 15 – November 15 are used to determine if primary contact recreational uses are supported.

**Cedar River** – Impaired segment is from the dam on Cedar Falls Impoundment to upper end of impoundment in Black Hawk County.

- 21% (5 of 22 samples) collected during the recreational season over the 3 year assessment period 2012 – 2014 exceeded the SSM for bacteria (DNR ambient station upstream from Cedar Falls)

Note: A TMDL for bacteria was prepared by IDNR and approved by EPA in 2010.

**Des Moines River** – Two impaired segments from Interstate Highway 80/35 bridge on north side of Des Moines to confluence with the Raccoon River in Des Moines, Polk County.

- 18% (91 of 496 samples) collected during the recreational season over the 3 year assessment period 2012 – 2014 exceeded the SSM for bacteria (Des Moines Water Works data from 2<sup>nd</sup> Avenue bridge).

Note: A TMDL for bacteria was prepared by IDNR and approved by EPA in 2010.

Compiled by Susan Heathcote, Water Program Director  
Iowa Environmental Council. September 2017.  
521 E. Locust Street, Suite 220  
Des Moines, Iowa 50309-1939

