Triennial Review of Water Quality Standards TR17
Updates to Bacteria Criteria Recreational Use

Water Resources Advisory Committee
November 18, 2015

Tom Wolf, Governor
John Quigley, Secretary
§ 93.7. Specific water quality criteria

BAC 1: WC – Water Contact Sports

<table>
<thead>
<tr>
<th>Time of Year</th>
<th>30 day average (fecal coliforms/ 100 ml)</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 1 to Sep 30</td>
<td>200</td>
</tr>
<tr>
<td>Oct 1 to Apr 30</td>
<td>2,000  Will Not Change</td>
</tr>
</tbody>
</table>

- During the swimming season, no more than 10 percent of the total samples taken during a 30 day period may exceed 400 per 100 ml
- The 30-day average is calculated as a geometric mean based on 5 consecutive samples collected on different days during a 30-day period
NPDES §92a.47 (relating to sewage permits)

(4) From May through September, a monthly average discharge limitation for fecal coliform of 200/100 mL as a geometric mean and an instantaneous maximum effluent limitation not greater than 1,000/100 mL.

(5) From October through April, a monthly average discharge limitation for fecal coliform of 2,000/100 mL as a geometric mean and an instantaneous maximum effluent limitation not greater than 10,000/100 mL.

Will not change
Bathing Beach Contamination

(b) The water in bathing beaches will be considered contaminated for bathing purposes when one of the following conditions exists:

(1) The Department determines that a substance is being discharged or may be discharged into the water and is or may be hazardous to the health of persons using the bathing beach.

(2) The E. coli density of a water sample taken from the bathing beach exceeds 235 per 100 mL.

(3) The E. coli density in all water samples taken from the bathing beach, in any 30-day period during the bathing beach’s operating season, exceeds a geometric mean of 126 per 100 mL.

 Applies to all permitted bathing beaches statewide, will not change
**Other Applicable Current Regulations**

**BEACH Act Promulgation**

Pertains to Lake Erie and Presque Isle (November 16, 2004)

<table>
<thead>
<tr>
<th>FW enterococci</th>
<th>FW E. coli</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acceptable swimming associated GI illness rate per 1000 swimmers</td>
<td>8</td>
</tr>
<tr>
<td>Steady state geometric mean indicator density</td>
<td>33/100 ml</td>
</tr>
<tr>
<td>Single sample maximum allowable density</td>
<td>upper 75% CL</td>
</tr>
<tr>
<td>61</td>
<td>78</td>
</tr>
<tr>
<td>235</td>
<td>298</td>
</tr>
</tbody>
</table>

*Should be repealed, once 2012 RWQC is adopted for all waters, statewide.*
Both Recommendations are adequately protective.

<table>
<thead>
<tr>
<th></th>
<th>Recommendation 1 (36/1000)</th>
<th>Recommendation 2 (32/1000)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>GM</td>
<td>STV</td>
</tr>
<tr>
<td>enterococci (fw &amp; sw)</td>
<td>35</td>
<td>130</td>
</tr>
<tr>
<td>E. coli (fw)</td>
<td>126</td>
<td>410</td>
</tr>
</tbody>
</table>

STV approximates the 90th percentile and should not be exceeded by more than 10 percent of the samples taken.

E. coli levels for Recommendation 1 are most closely akin to the current DOH standards and federally promulgated standards.
• Based on two indicators = *Escherichia coli* and *enterococci*

• *E. coli* and *enterococci* are now known to be **better** indicators than fecal coliforms

• Designed to protect **primary recreation** – where high degree of bodily contact with water, immersion, and ingestion are likely

• Once Pennsylvania adopts the 2012 RWQC; the state hopes to **no longer be subject to Federal promulgation under BEACH Act** – Pennsylvania’s adoption would be statewide
• 2012 RWQC is designed to protect primary contact recreation – does not pertain to secondary recreational use standards
  – EPA is currently working on secondary contact standards, but will NOT be included in this triennial review
  – Pennsylvania will propose other criteria for secondary recreation use, once EPA criteria and guidance are available
Questions?

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