



pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION



Office of Water Management

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

Current Water Quality Standards

§ 93.7. Specific water quality criteria

BAC 1: WC – Water Contact Sports

Time of Year	30 day average (fecal coliforms/ 100 ml)
May 1 to Sep 30	200
Oct 1 to Apr 30	2,000 Will Not Change

- 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

▶ Other Applicable Current Regulations

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

Other Applicable Current Regulations

DCNR Swimming Lakes, DOH Regs: Title 28; §18.28.

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)

	Acceptable swimming associated GI illness rate per 1000 swimmers	Steady state geometric mean indicator density	Single sample maximum allowable density			
			upper 75% CL	upper 82% CL	upper 90% CL	upper 95% CL
FW enterococci	8	33/100 ml	61	78	107	151
FW E. coli	8	126/100 ml	235	298	409	575

Should be repealed, once 2012 RWQC is adopted for all waters, statewide

2012 National Recommended Recreational Water Quality Criteria

Both Recommendations are adequately protective

	Recommendation 1 (36/1000)		Recommendation 2 (32/1000)	
	GM	STV	GM	STV
enterococci (fw & sw)	35	130	30	110
E. coli (fw)	126	410	100	320

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

▶ 2012 National Recommended Recreational Water Quality Criteria

- 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

Secondary Recreational Use Standards

- 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



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Questions?

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