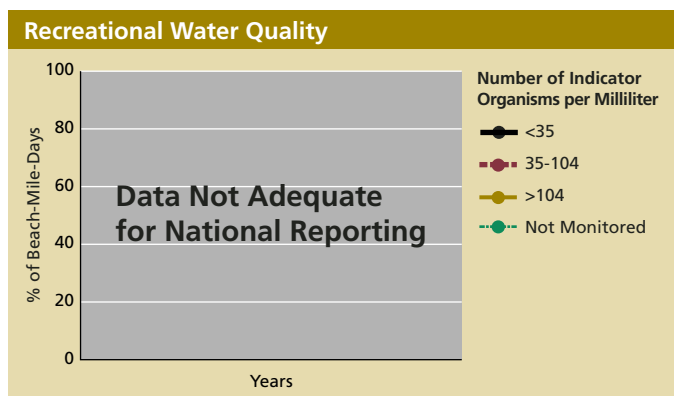


SYSTEM DIMENSIONS	CHEMICAL AND PHYSICAL	BIOLOGICAL COMPONENTS	HUMAN USES
Extent Pattern	Nutrients, Carbon, Oxygen Contaminants Physical	Plants and Animals Communities Ecological Productivity	Food, Fiber, and Water Recreation and Other Services

⊖ Recreational Water Quality



What Is This Indicator, and Why Is It Important?

This indicator will report the percentage of “beach-mile-days” affected by various levels of *Enterococcus*, a bacterium that indicates contamination with human or animal waste. A “beach-mile-day” is one mile of beach affected for one day—100 miles of beach affected for one day would count the same as 1 mile affected for 100 days.

Swimming in sewage-contaminated waters can cause minor ailments, like sore throats and diarrhea, as well as more serious, even fatal, illnesses like severe gastroenteritis, meningitis, and encephalitis. Beach-based

activities, like sunbathing, surfing, and swimming, are popular (see the national recreation indicator, p. 60), add billions of dollars to the economy, and contribute to the value of coastal properties. Poor water quality threatens these benefits.

Why Can’t This Indicator Be Reported at This Time? A great deal of information is collected on coastal recreational water quality, but the data are scattered, incomplete, and inconsistent. Beach monitoring is typically conducted by city or county health departments, which frequently use different methods, while many areas choose not to monitor at all. Recent federal legislation provides increased incentives to monitor using nationally consistent methods, so data for this indicator should be available in the future.

Discussion There is no national standard for closing beaches because of sewage contamination; such decisions are made locally, using many different standards. This indicator reports the most commonly used indicator organism (*Enterococcus*), which is also recommended by EPA, but some monitoring relies upon other organisms. There are other aspects of water quality, such as the presence of contaminated sediments (see p. 72), that are not addressed by this indicator.

The contamination reported by this indicator may be caused by sewage treatment plant malfunctions, overflow of combined sewer systems during rain storms, discharges from boats, leaking septic systems, and runoff after heavy rains that may contain animal waste from farms, urban lawns, and streets.

The technical note for this indicator is on page 228.