

## Bacteria Standards Rulemaking



State of Oregon  
Department of  
Environmental  
Quality

### Environmental Solutions

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*DEQ is a leader in  
restoring, maintaining  
and enhancing the  
quality of Oregon's  
air, land and water.*

### Why is DEQ revising the water quality standard for bacteria?

DEQ is revising Oregon's Clean Water Act standard for bacteria based on [EPA's latest 2012 national recommendations](#). Oregon is currently operating under a federal rule for coastal bacteria criteria that EPA published in 2004. EPA is requiring DEQ to adopt the new criteria in order to continue to receive funding for the Oregon Health Authority's (OHA) [Oregon Beach Monitoring Program](#) (OBMP). Once DEQ adopts and EPA approves the revised criteria, they will replace the federal rule and will become the basis for permit limits, water quality assessments, and total maximum daily loads.

### What are the criteria that DEQ is recommending?

For coastal contact recreation use, DEQ is recommending a criterion of 35 colonies of enterococcus bacteria/100 milliliters as a 90-day geometric mean, which is identical to the value in the 2004 federal rule. DEQ is also recommending a "statistical threshold value" of 130 colonies/100 mL, which may not be exceeded more than 10% of the time.

### What other changes is DEQ proposing?

DEQ is proposing to clarify the beneficial use designations for coastal waters, which determines which bacteria criteria apply. The enterococcus criteria will apply to contact recreation, such as swimming and surfing, in coastal waters. E. coli criteria will apply to contact recreation in freshwater. Fecal coliform criteria will apply to marine and estuarine shellfish harvesting areas. As part of the rulemaking, DEQ also is creating designated use maps that will show where each of these uses is designated.

In addition, DEQ will be changing the averaging period to calculate the geometric mean for the E. coli criterion at 340-041-0009(1)(a)(A) from 30 days to 90 days, consistent with the averaging period for the enterococcus criterion. The 90 day average is consistent with the studies that EPA utilized in developing their 2012 recommendations. Moreover, the longer averaging period will increase the likelihood that DEQ will have sufficient data for DEQ to determine if Oregon waters are attaining the criteria.

### Why are there three different bacteria criteria?

[EPA has determined](#) that E. coli and enterococcus bacteria are the best indicators of gastrointestinal illness when people have full immersion contact with the water. E. coli levels better predict illness in freshwater and enterococcus best predicts illness in coastal waters. The FDA has recommended criteria for fecal coliform to indicate if there is a risk for illness due to consumption of filter feeding shellfish, such as clams, oysters, and mussels.

### How does DEQ use the water quality standards for bacteria?

DEQ uses the water quality criteria for bacteria in two primary ways. First, DEQ establishes limits for entities, such as sewage treatment plants and industries that discharge treated waste water into Oregon waters. Limits are designed to ensure that the discharge does not cause the bacteria concentrations in the water to be greater than the standard. Second, DEQ assesses available data against the water quality standards for bacteria to determine if Oregon waters are impaired for

bacteria in its [Integrated Report](#). If any waters are impaired for bacteria, DEQ develops a water quality plan called a Total Maximum Daily Load that will result in improvements to meet water quality standards.

### **How is the Oregon Health Authority (OHA) involved?**

OHA administers the [Oregon Beach Monitoring Program](#) (OBMP) and posts beach advisories if water samples exceed the bacteria level (beach action value) that EPA has determined is safe for recreation. EPA has recommended a revised beach action value (BAV) and is also requiring that states adopt their recommended BAV in order to receive federal funding to monitor beaches. OHA plans to adopt EPA's recommended new value and begin using it for the 2017 monitoring season. The BAV is separate from water quality standards under the Clean Water Act and is not used by DEQ as the basis for permit limits or determining if a water body is impaired.

### **Why is the Beach Action Value different from the Water Quality Standards?**

EPA suggests that states use their recommended BAV as “a conservative, precautionary tool for making beach notification decisions,” but not as part of the water quality standard, which is designed for longer-term purposes, such as permitting and assessing waters for impairment.

### **Who can I talk to about water quality standards revisions?**

Please contact Aron Borok at the Department of Environmental Quality, by [email](#) or phone 503-229-5050 (toll-free in Oregon at 800-452-4011, ext. 5050).

### **Who can I talk to about the BAV adoption process?**

Please contact Tara Chetock at the Oregon Health Authority, by [email](#) or phone 971-673-1496 (toll-free 877-290-6767).



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