

Activity	Description	Status	Website/Notes
Rec Criteria Basics			
Stakeholder webinar	Stakeholder webinar after RWQC is issued.	Completed Jan. 2013	http://water.epa.gov/learn/training/wacademy/upload/2013-01-30-slides.pdf
qPCR Support Tools			
qPCR Enterococcus EPA Method 1611.1	Document specifies how to conduct the EPA qPCR test for Enterococcus, beginning with water sample collection through laboratory analysis and ending with how to report the data as CCE units/100 mL.	Updated April 2015	http://water.epa.gov/scitech/methods/cwa/bioindicators/upload/Method-1611-1-Enterococcus-2015.pdf Errata: http://water.epa.gov/scitech/methods/cwa/bioindicators/upload/Errata-to-Methods-1609-1-and-1611-1_06-18-2015.pdf
qPCR Enterococcus EPA Method 1609.1	Similar to EPA Method 1611.1, this method includes an internal amplification control (IAC) and uses a different master mix (Environmental Master Mix) that is formulated to be more resistant to common PCR inhibitors in environmental waters.	Updated April 2015	http://water.epa.gov/scitech/methods/cwa/bioindicators/upload/Method-1609-1-Enterococcus-IAC-2015.pdf Errata: http://water.epa.gov/scitech/methods/cwa/bioindicators/upload/Errata-to-Methods-1609-1-and-1611-1_06-18-2015.pdf
Tool for qPCR calculation	Excel spreadsheet to convert qPCR test results from machine results (CT) to reporting units (CCE/100 mL, as specified in Method 1611.1 and 1609.1). The purpose is for stakeholders to plug in their CT values and have the spreadsheet calculate the CCE reporting number rather than have them use hand calculators.	Updated April 2015	http://www2.epa.gov/cwa-methods/other-clean-water-act-test-methods-microbiological
Acceptability of the EPA qPCR Test at Your Beach	This document provides direction on how to evaluate the acceptability of the quantitative polymerase chain reaction (qPCR) test at your beach.	Completed Dec. 2013	http://water.epa.gov/scitech/methods/cwa/bioindicators/upload/Acceptability of the EPA qPCR test at your beach EPA Dec 2013.pdf
Detection and Quantification Limits of EPA Enterococcus qPCR Methods	This report addresses the question of whether the analytical sensitivity of the qPCR method is sufficient to support the site-specific alternate criteria values provided in the RQC.	Completed Dec. 2013	http://water.epa.gov/scitech/methods/cwa/bioindicators/upload/Det - Quant Limits Enterococcus qPCR Methods EPA Dec 2013.pdf
qPCR basics training	Hands-on training of Method 1611 in Region 1 for laboratory technicians to learn how to do the test and for beach managers trying to decide if they should use this test.	Completed Nov. 2014	Two trainings have been successfully conducted. See materials above for methods and tools.
Coordination with the Beach Program			
Marine sanitary survey	Guidance for beach managers to identify pollutant sources in marine waters.	Completed (Survey User Manual April 2013; Webinar March 2014)	http://www2.epa.gov/beach-tech/beach-sanitary-surveys
Update National Beach Guidance and Required Performance Criteria for Grants	Updated existing beach guidance to address modeling, monitoring, qPCR, tiering, sanitary surveys, and the 2012 RWQC.	Updated July 2014	http://www2.epa.gov/sites/production/files/2014-07/documents/beach-guidance-final-2014.pdf
Modeling implementation projects	Based on interviews with people who have implemented beach models, produce a how-to manual that will allow the process to be replicated in other locations. Worked with Texas Beach Watch Program to pilot, test the guidance and develop models at two locations.	Piloting completed Sept. 2014, Revised draft of guidance June 2015, Final Sept.2015	

Coordination with the Water Quality Standards (WQS) Program			
QMRA guidance for states, Vol. A, How to develop a report	How to conduct a QMRA; data needs; how to do calculations using microbial risk assessment protocol and decision matrix. Process is described and examples for swine, chicken and gulls are included.	Final Sept. 2015	Peer review has been completed (June 2015).
QMRA guidance for states, Vol. B, Technical report	State-of-the-science review and parameter justification that supports Volume A.	Final Sept. 2015	Peer review has been completed (June 2015).
QMRA guidance for states, Vol. C, Case studies	Examples demonstrating the application of the QMRA framework to better understand potential human health risks at specific sites. Volume will consist of a compendium of summaries of peer reviewed science articles and reports with additional narrative describing the process and highlighting decision points in non-technical language. This volume is designed to be adaptable to include future additions as more examples become available. Current QMRA examples nclude: “fecal mixtures,” two agricultural animal reports, Boqueron #1, Chicago area waterways (contingent on Region 5 coordination), and Ohio/Marion epi study. QMRA.	Final Sept. 2015	Peer review has been completed (June 2015).
Guide to TSMs for Deriving Site-Specific Alternative Criteria	A guide to help users decide if site-specific alternative water quality criteria are scientifically defensible and protective of the designated recreational use and which tools would best support the development of site-specific alternative water quality criteria.	Completed Dec. 2014	http://www2.epa.gov/wqc/2012-recreational-water-quality-criteria-0
Alternative health relationships TSM	TSM discusses scientifically-defensible approaches for characterizing site-specific relationships between water quality and potential human health impacts.	Final Dec. 2015	Out for peer review (June 2015).
Alternative indicators TSM	Develop a protocol for incorporation of new technologies, indicators, methods.	Completed Dec. 2014	http://www2.epa.gov/wqc/2012-recreational-water-quality-criteria-0
Coordination with Other Programs			
RWQC and NPDES Permitting	FAQs providing implementation support for establishing permits and requirements using the RWQC.	Completed April 2015	http://water.epa.gov/polwaste/npdes/basics/NPDES-Water-Quality-Based-Permit-Limits-for-Recreational-Water-Quality-Criteria-FAQs.cfm