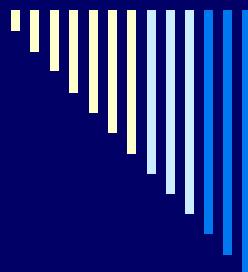


US EPA ARCHIVE DOCUMENT



The Path Forward for New Recreational Water Quality Criteria

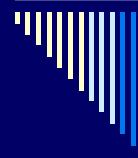
Update for Stakeholders and
Opportunity for Input

February 20, 2008
Washington, DC



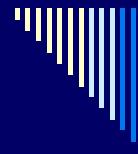
Why are we here?

- We have come a long way since last year; time to update stakeholders on progress and timelines
- Opportunity to explain what's in CPSP
- Educate on role of QMRA
- Once again solicit stakeholder input in key areas
 - Substantive issues
 - Process issues
- Not here to discuss ongoing litigation



Where were we this time last year?

- We knew additional research & studies were needed.
- We had obtained stakeholder input on the key questions to bring to the technical experts regarding what additional science or research was needed.
- We were preparing to hold the “Experts Scientific Workshop” to assess the current state of the science and to identify research needs.



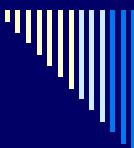
What did you tell us in December 2006?

- For Pellston Workshop
 - Ask the right questions
 - Consider 5 year time line
 - Don't neglect high priority long term issues
 - Determine relationship between fecal indicators and pathogens
 - Scientific needs for secondary contact criteria
 - Validate and standardize methods
 - Criteria need to be for all CWA purposes; different criteria and different methods may be needed (toolbox)
 - Investigate role of modeling
- Consider how to make policy decisions with incomplete information
- Keep implementation issues in mind



What has happened since?

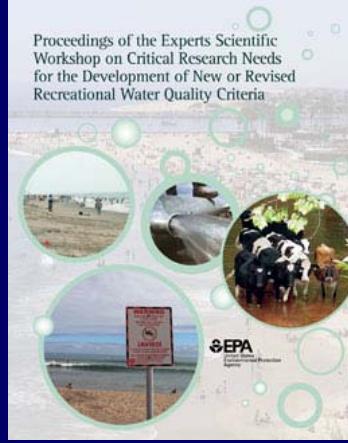
- Experts Workshop March 26-30, 2007
- Report from Experts Workshop published June 2007
- Freshwater Enterococcus QPCR method validation trials
- Marine epidemiological studies “done” in Rhode Island and Alabama
- EPA Grant to SCWRRP for Avalon Beach epidemiological study
- Issuance of CPSP and CDP in August 2007
- Initiated project to define data elements for QMRA work
- Three literature reviews completed for relative risk for different sources, animal pathogens, and indicator behavior in tropical climates in December 2007
- Work continuing to develop human markers for fecal indicators
- Initial scoping of issues and possible approaches to criteria
- Actively tracking, collaborating, and engaging in discussions with other researchers



Experts Workshop

- Convened group of 43 national and international scientific and technical experts on March 26-30, 2007 to obtain expert input on critical path science and research needs for development of new/revised recreational water criteria.
- Focused on near-term research (to be completed within 3 years) but also captured longer term needs
- Key charge questions
 - Assess the state of the science with regard to developing new or revised recreational water quality criteria.
 - Identify the critical path research needs that must be completed in the next 2-3 years, understanding that the criteria must:
 - Be scientifically sound and protect the designated use
 - Applicable for broad Clean Water Act (CWA) purposes
 - Advance public health protection
 - Be issued within 5 years

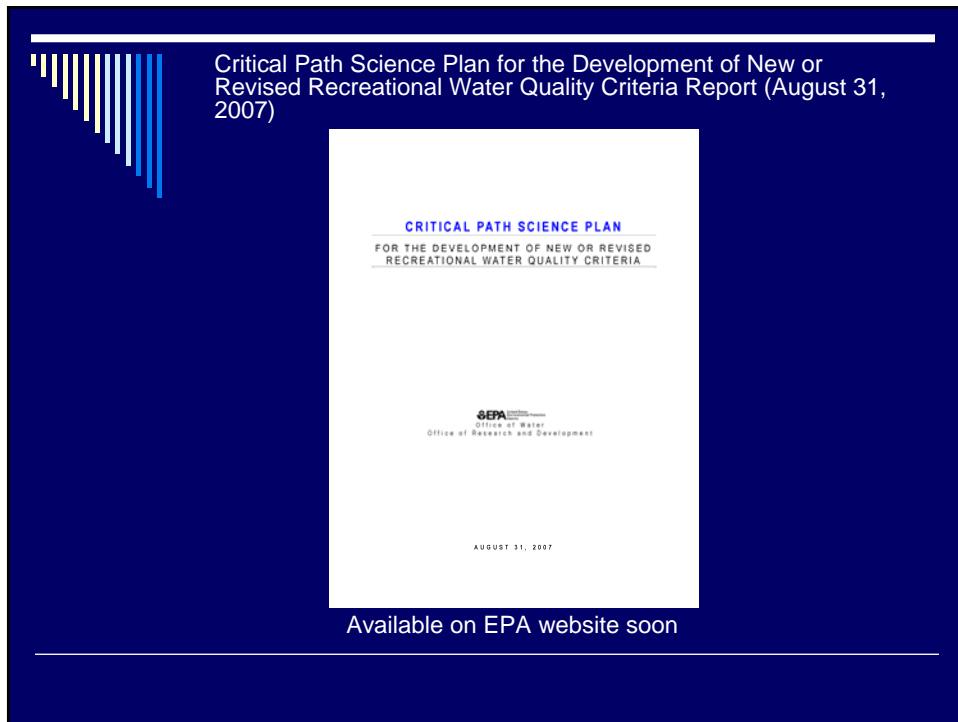
Report of the Experts Scientific Workshop on Critical Research Needs for the Development of New or Revised Recreational Water Quality Criteria Report (June 15, 2007; EPA 823-R-07-006)



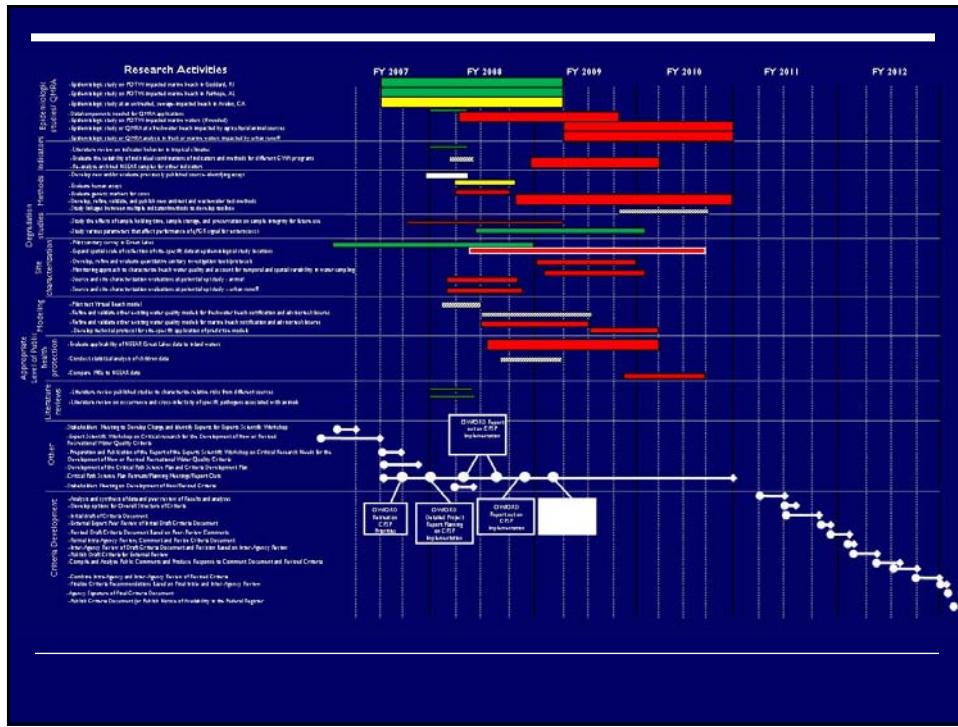
<http://www.epa.gov/waterscience/criteria/recreation/expertsWorkshop.pdf>

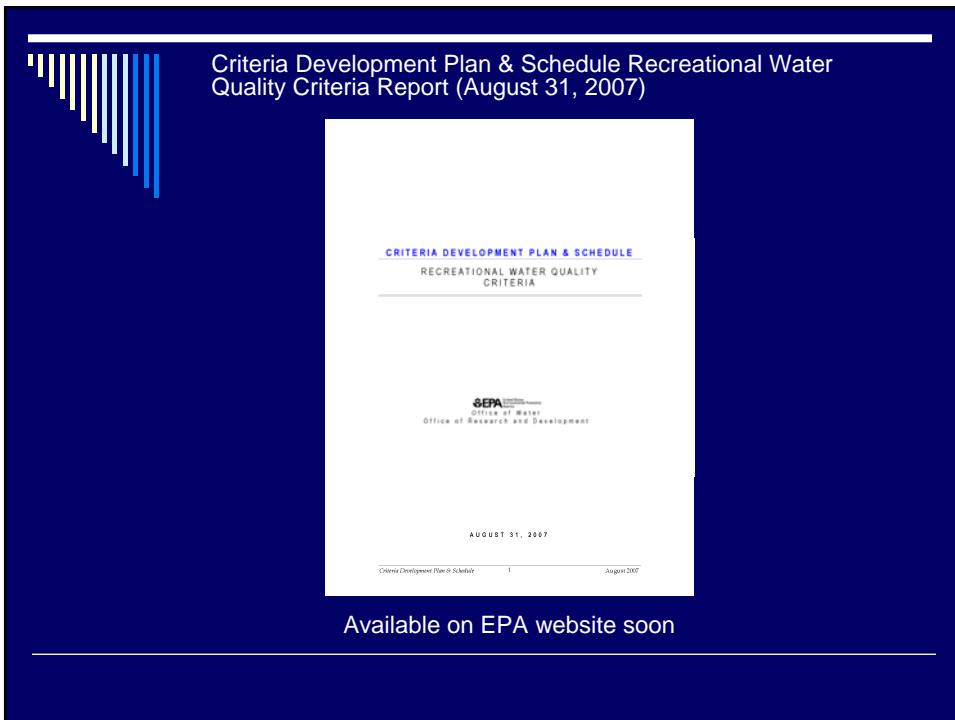
Critical Path Science Plan

- Details EPA's scientific rationale for developing new/revised recreational water quality criteria.
- An integrated approach to answering key scientific questions necessary to develop scientifically sound criteria.
- Goals
 - Assess human health risk
 - Develop indicators
 - Develop methods
 - Extrapolate research results
- High priority research areas
 - Pathogen indicators and indicators of fecal contamination
 - Human health impacts from different sources of fecal contamination
 - Indicators and methods for measuring fecal contamination
 - Risk levels of vulnerable subpopulations
 - Climatic, geographic, and temporal variability
 - Modeling applications to criteria development and implementation



Available on EPA website soon





Criteria Development Plan & Schedule Recreational Water Quality Criteria Report (August 31, 2007)

CRITERIA DEVELOPMENT PLAN & SCHEDULE
RECREATIONAL WATER QUALITY CRITERIA

AUGUST 31, 2007

Available on EPA website soon



Criteria Development Plan

- Ongoing scientific research (July 2007 – December 2010)
- Analysis and synthesis of data and peer review of results (January 2011–March 2011) .
- EPA development of options for overall structure of criteria and preliminary decision-making on options (Spring 2011).
- External expert peer review of initial draft criteria document (Fall 2011).
- Inter-agency review of draft criteria document and revisions based on review (Winter 2011/Spring 2012).
- Release draft criteria document for public comment (Spring 2012).
- Publish criteria document (or publish notice of availability) in the Federal Register (December 2012).



Epidemiological Studies at Goddard Beach, Rhode Island and Fairhope, Alabama

Marine beach impacted by POTWs



Status of Goddard and Fairhope Epidemiological Studies

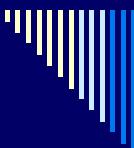
- Collected data in summer of 2007
- Analyses of results underway
 - Relationship between indicators and illness in swimmers (both GI and non-GI)
 - Differences in illness rates
 - Swimmers versus non-swimmers
 - Adults versus children
 - Best indicator for predicting illness
 - Exposure-response curves for criteria development
- Complete data analysis, then peer review and publish results.



Epidemiological study at Avalon Beach, California

- Marine beach impacted by mixed sources of fecal contamination including bird droppings, urban runoff, and leaking sanitary sewers
- In collaboration with the Southern California Coastal Water Research Project (SCCWRP)





Status of Avalon Epidemiological Study

- Collected data in summer of 2007
- Analyses of data underway
 - Relationship between indicators and illness in swimmers (both GI and non-GI)
 - Differences in illness rates
 - Swimmers versus non-swimmers
 - Adults versus children
 - Best indicator for predicting illness
 - Exposure-response curves for criteria development
- Complete data analysis, then peer review and publish results.



Other work we are aware of

- Epidemiological study at Doheny Beach, California
 - In collaboration with the Southern California Coastal Water Research Project (SCCWRP)
 - Marine beach impacted by storm water runoff
 - Stopped in 2007 due to lack of rainfall
- Epidemiological study at Tampa Bay, Florida in design
 - University of South Florida
 - Impacted by storm water runoff
 - Tropical marine and freshwater beaches
- Epidemiological study at Miami Beach, Florida, underway
 - University of Miami and others as partners
 - Tropical marine beach
 - Non-point source urban runoff



Interested in your input on some key issues and on process for ongoing stakeholder involvement

- Stakeholder input on specific research direction for inland waters.
- Stakeholder input on new/revised criteria: what would you like the criteria “to do for you”?
- Stakeholder input on options for stakeholder involvement through 2012.



- EPA is ready, willing, and wants to collaborate
 - Technical expertise
 - Research partnerships
 - Value added opportunities
- EPA is committed to continuing engagement throughout next 4 and 1/2 years
 - Criteria will not "pop" out in December 2012 and scream "surprise!"
 - Want to ensure timely and appropriate opportunities for stakeholders to offer input