



2011 Impaired Water Symposium

Spanning the Water Quality Continuum From Standards to TMDLs

January 12 -13, 2011
Hilton Miami Downtown
Miami, Florida USA

OPENING GENERAL SESSION

Wednesday, January 12, 2011
1:30pm-3:00pm

1.5 PDHs

The water quality continuum is the subject of intense and growing public attention. In recent months, we have seen proposals for numeric nutrient criteria in Florida, a large-scale TMDL for the Chesapeake Bay, a new federal strategy for achieving clean water, a new plan for targeted revisions to EPA's water quality standards regulation, and new lawsuits seeking to compel or expedite the restoration of our nation's waters. The opening general session will explore these developments from the federal and state perspective, as well as market-based opportunities for achieving our clean water objectives.

TECHNICAL PROGRAM

Session 1: Case Study of Potential Impacts of Florida Nutrient Rule

Wednesday, January 12, 2011

3:30pm-5:00pm

1.5 PDHs

Moderators: Dan Coleman, *O'Brien & Gere (Invited)*
Chris Minton, *Larry Walker Associates*
Adrienne Nemura, *LimnoTech (Invited)*

01A 3:30pm Nutrient Impacts of Florida APRICOT Act Discharges
David Dilk, *LimnoTech*

01B 3:50pm Economic Impacts of Proposed Nutrient Criteria
David Bolam, *CCUA*

01C 4:10pm Legal Consideration in Achieving Compliance with Proposed Nutrient Criteria
Fred Aschauer, *Rose, Sundstrom & Bentley*

4:40pm – 5:00pm *Panel Discussion*

TECHNICAL PROGRAM

Session 2: The 303 Listing Process

Wednesday, January 12, 2011

3:30pm-5:00pm

1.5PDHs

Moderators: Tina Reese, *SYMBIONT*
Richard Isleib, *HydroQual, Inc.*

02A 3:30pm A Tools and Resources Web Site for Assessing Restorability of Impaired Waters

Douglas Norton, *U.S. EPA*

02B 3:50pm Ocean Acidification and the 303(d) Program

Christine Ruf, *U.S. EPA*

02C 4:10pm Coordinating Interstate Listing Decisions for the Ohio River

Jason Heath, *ORSANCO*

Alt 1 4:30pm EPA's Numeric Nutrient Rules for Florida

Scott McClelland, *CDM*

4:40pm - 5:00pm Panel Discussion

TECHNICAL PROGRAM

Session 3: Modeling for TMDLs

Wednesday, January 12, 2011

3:30pm-5:00pm

1.5 PDHs

Moderator: Lial Tischler, *Tischler/Kocurek*

03A 3:30pm **Optimal TMDL Development using a Watershed Scale Simulation-Optimization Approach: A Los Angeles County Case Study**

John Riverson, *Tetra Tech*

03B 3:50pm **Developing a Bacteria Total Maximum Daily Load for the Big Sioux River**

Jason Love, *RESPEC*

03C 4:10pm **Development and Calibration of Falls lake Watershed Model to Estimate Nutrient Loading from Point and Non-point Sources**

Adujna Kebede Wondimu, *North Carolina Department of Environment and Natural Resources*

4:30pm-5:00pm *Panel Discussion*

TECHNICAL PROGRAM

Session 4: Nutrient Issues Part I

Thursday, January 13, 2011

8:30am-10:00am

1.5 PDHs

Moderator: Jason Heath, *Ohio River Valley Water Sanitation Commission*

04A 8:30am **Compendium of Nutrient Listing and TMDL Practices**
Rosaura Conde, *U.S. EPA*

04B 9:00am **USEPA's Proposed Numeric Nutrient Criteria: Not Ready for Prime Time**
Eldon Blancher, *Sustainable Ecosystem Restoration, LLC*

04C 9:30am **Evaluation of Phosphorus Sources and Watershed Controls in Floyds Fork to Determine Cost-Effective Approaches for Phosphorus Removal**
Tad Slawecki, *LimnoTech*

Alternate **Air Cycling Enhanced Carbonaceous and Nitrogen Compounds Removal with Pilot Scale Submerged Poo-Gloo™ Dome Sets**
Hua, Xu, *Wastewater Compliance Systems, Inc.*

TECHNICAL PROGRAM

Session 5: Nutrient Criteria Development

Thursday, January 13, 2011

8:30am-10:00am

1.5 PDHs

Moderators: Bart Ruiter, *DuPont Engineering Technology*
Chad Drummond, *GeoSyntec Consultants*

05A 8:30am Development of Nutrient Criteria for Lakes and Reservoirs in Northern Plains States

Stephanie Johnson, *Houston Engineering, Inc.*

05B 9:00am Estuarine Nutrient Criteria: An Effects Based Approach

Andrew Thuman, *HydroQual, Inc.*

05C 9:30am The Role of Estuarine Eutrophication Models in Nutrient Criteria Development

Richard Isleib, *HydroQual, Inc*

Alternate Nutrient Limit Implementation: The Texas Experience

Paul Wood, *Lockwood, Andrews & Newnam, Inc.*

TECHNICAL PROGRAM

Session 6: Creative Solutions for Complex TMDL Issues Part I

Thursday, January 13, 2011

8:30am-10:00am

1.5 PDHs

Moderator: Laura Blake, *The Cadmus Group, Inc.*

06A 8:30am Integration of Climate Change Analysis and TMDL Development

Andrew Parker, *Tetra Tech*

06B 9:00am Mother Nature Makes the Case for Adaptive Water Quality Management of Impaired Water Bodies

James Rhea, *Anchor QEA, LLC*

06C 9:30am Maine's Statewide TMDLs Approach, The Easy Way Out?

Melissa Evers, *Maine Department of Environmental Protection*

Alternate Toxics TMDL for Greater Los Angeles and Long Beach Harbor Waters - Establishing Targets and Implementing Actions in Complex Setting

Elaine Darby, *Anchor QEA*

TECHNICAL PROGRAM

Session 7: Nutrient Issues Part II

Thursday, January 13, 2011

10:30-12:00pm

1.5 PDHs

Moderator: **Jim Scholl**, *Malcolm Pirnie*

07A 10:30am **Application of Organic Microconstituent Markers for Assessment of Nutrient Loading from Reclaimed Water Plants**
Joseph Jacangelo, MWH

07B 11:00am **Streambank Erosion and the Chesapeake Bay TMDL - Loading Rates and Bay Model Assumptions**
J. Shuman, Johnson, Mirmiran and Thompson

07C 11:30am **Evaluating the Impacts of Discharges from Proposed Fish Acclimation Ponds to a 303(d) Listed Water Body in Central Washington**
Pradeep Mugunthan, Anchor QEA

TECHNICAL PROGRAM

Session 8: Defining Designated Uses

Thursday, January 13, 2011

10:30-12:00pm

1.5 PDHs

Moderator: Richard Isleib, *HydroQual, Inc.*

- 08A 10:30am** **Does Treatment Plant Effluent Constitute a Municipal and Domestic Supply (MUN)? A UAA for a MUN Use in California**
Chris Minton, *Larry Walker Associates Inc.*
- 08B 11:00am** **Stormwater Impacts in California's Marine Water Quality Protected Areas**
Kenneth Schiff, *Southern California Coastal Water Research*
- 08C 11:30am** **Existing Water Quality Standards and Wet Weather Compliance are Mutually Exclusive. Why Does This Have to be the Case**
Barton Jones, *Strand Associates, Inc.*
- Alternate** **Refining Aquatic Life Designated Uses**
David Gruber, *Biological Monitoring, Inc.*

TECHNICAL PROGRAM

Session 9: Creative Solutions for Complex TMDL Issues Part II

Thursday, January 13, 2011

10:30-12:00pm

1.5 PDHs

Moderator: Rosaura Conde, *U.S. EPA*

09A 10:30am The TMDL Results Analysis Web Site: Online Resources about Program Effectiveness

Douglas Norton, *U.S. EPA*

09B 11:00am The Savannah River DO TMDL and Recent Advancements in Developing Point Source Permit Loads from Time Variable Models

Cristhian Mancilla Alarcon, *HydroQual, Inc.*

09C 11:30am Challenges and Solutions for Developing TMDLs for Bioaccumulative Pollutants: The California Experience

Karen Cowan, *Larry Walker Associates*

Alternate Fear and Loathing in Los Angeles: Developing a Bacteria TMDL for the World's Most Engineered Watershed

Dustin Bambic, *AMEC Earth & Environmental*

TECHNICAL PROGRAM

Session 10: Standards and Criteria Issues

Thursday, January 13, 2011

1:30pm-3:00pm

1.5 PDHs

Moderator: Tina Reese, *SYMBIONT*

- 10A 1:30pm** **Challenges for Implementation of Copper Aquatic Life Criteria Using the Biotic Ligand Model; What are We Waiting For?**
Robert Gensemer, *GEI Consultants*
- 10B 2:00pm** **Should There be an Aquatic Life Water Quality Criterion for Conductivity?**
Steven Canton, *GEI Consultants*
- 10C 2:30pm** **Dissolved Oxygen Water Quality Standards For The Chicago Area Waterway System: Costs And Environmental Impacts Of Compliance**
Catherine O'Connor, *MWRDGC*

TECHNICAL PROGRAM

Session 11: Wet Weather Flow Part I

Thursday, January 13, 2011

1:30pm-3:00pm

1.5 PDHs

Moderators: Charles Ikenberry, *Iowa Department of Natural Resources*
Chad Drummond, *GeoSyntec Consultants*

11A 1:30pm A Simplified Method for Simulating CSO Bacteria Loads In TMDL Development with Limited Available Data
Charles Mitchem, GHD, Inc.

11B 2:00pm Evaluating Implementation of LID/BMP in Storm Water System Using EPA SUSTAIN
Henry Manguerra, *Michael Baker Jr. Inc.*

11C 2:30pm Modeling the Impact of Worms and Grasses on Bioretention Cell Function
Alicia Greene, *CDM*

TECHNICAL PROGRAM

Session 12: Tools for Implementation

Thursday, January 13, 2011

1:30pm-3:00pm

1.5 PDHs

Moderators: David Gruber, *Biological Monitoring, Inc.*
Charles Logue, *ReWa*

- 12A 1:30pm** **Clean Water Act Section 319(g) Petition for Mercury: An Innovative Tool for Implementing the Northeast Regional Mercury TMDL**
Susannah King, *New England Interstate Water Pollution Control Commission*
- 12B 2:00pm** **Revising the Implementation Plan for the Lake Champlain Phosphorus TMDL**
Julia Moore, *Vermont Agency of Natural Resources*
- 12C 2:30pm** **Spokane River Watershed Strategies for Point and Nonpoint Source Management to Meet the Most Restrictive TMDL in the Nation**
David Clark, *HDR*
- Alternate** **Non-Point Source Chemical Treatment - An Innovative Alternative for Meeting Phosphorus and Pathogen TMDLs**
Jeffrey Herr, *Brown and Caldwell*

TECHNICAL PROGRAM

Session 13: Current Issues in Integrated 303(d)/305(b) Reporting

Thursday, January 13, 2011

3:30pm-5:00pm

1.5 PDHs

3:45pm-5:00pm Discussion with Bill Painter, U.S. EPA

This session will be an interactive dynamic session focused on “key provisions of guidance issued by EPA over the last decade regarding the assembly, screening, and interpretation of monitoring data and other information relevant to the development of state (303) lists of water quality-limited waters and associate parts of integrated 305 (b)/303(d) lists.”

Key Topics:

- Definition Review
- Data Solicitation
- Data Evaluation/screening
- Data interpretation in the 303d complex
- Listing based on narrative water quality criteria

TECHNICAL PROGRAM

Session 14: Wet Weather Flow Part II

Thursday, January 13, 2011

3:30pm-5:00pm

1.5 PDHs

Moderator: Charles Ikenberry, *Iowa Department of Natural Resources*

- 14A 3:30pm** **Flow Reductions for a Restoration of a Biologically Impaired Urban Stream“Pollution and Pollutant”**
Raed El-Farhan, *The Louis Berger Group*
- 14B 4:00pm** **Addressing Stormwater Source-Pollutants Through The Use of Surrogate TMDLs**
Menchu Martinez, *U.S. EPA*
- 14C 4:30pm** **Biological Objectives: California’s Newest Approach to Water Quality Regulation**
Kenneth Schiff, *Southern California Coastal Water Research*

TECHNICAL PROGRAM

Session 15: Balancing the TMDL Equation Through Reasonable Assurance

Thursday, January 13, 2011

3:30pm-5:00pm

1.5 PDHs

Moderator: Charles Logue, *ReWa*

**3:30pm-5:00pm EPA National Guidance for Developing Reasonable Assurance
in Total Maximum Daily Loads**

Michael Haire, *USEPA*

The objective of this session will be to learn about EPA's general expectations regarding the inclusion of a Reasonable Assurance (RA) component as a requirement in approvable "blended water" TMDLs. To hear about/discuss past and ongoing approaches by TMDL practitioners on how RA has been incorporated into TMDLs. To hear about RA implementation issues, from both a point and non point source perspective. The session will be in the form of a panel of Federal, State and other Stakeholder experts who have policy and implementation experience with RA issues.

The desired Outcome for all participants is a clearer understanding of the legal basis for and purpose of including RA in blended water TMDLs. Additionally, we hope that the discussion will help EPA frame approaches to possible options that meet EPA's expectations.