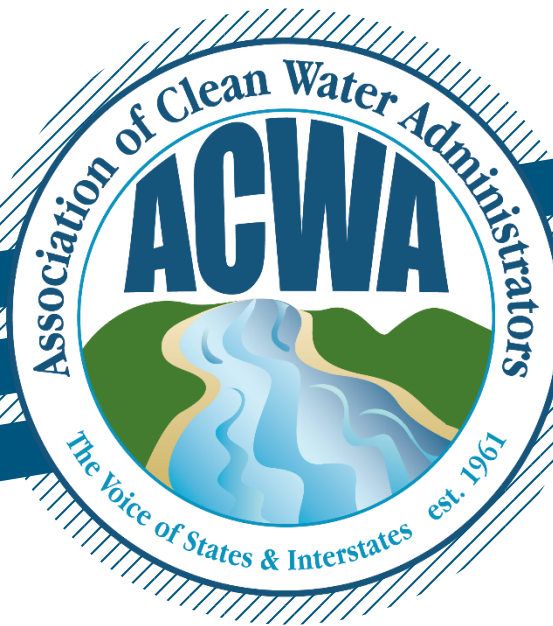


*Association of Clean Water Administrators*

# **2024 Modeling Workshop**

**September 16 - 20, 2024**



This Water Quality Modeling Workshop is a national meeting organized by ACWA, in partnership with USEPA for state program managers and staff involved in water quality modeling, as well as for both Regional and Headquarters-based U.S. Environmental Protection Agency managers and staff.

# MONDAY, SEPTEMBER 16

12:00 – 1:00 PM ET	Welcome and Registration
1:00 – 5:00 PM ET	Full Group Plenary
3:30– 3:45 PM ET	Break

# TUESDAY, SEPTEMBER 17

9:00 – 9:30 AM ET	Introductions and attendee interests Overview of the week, review of prerequisites
9:30 – 10:15 AM ET	Modeling 101 (Lightening presentation and questions)
10:15 – 10:30 AM ET	Break
10:30 – 11:00 AM ET	Project Planning - Project planning overview - Types of projects requiring models - Contracting: SOW, deliverables * Real world example: Introduction to example WA project
11:00 – 12:00 PM ET	QAPPs - Problem formulation - Model selection - Model scoping *Interactive: QAPP investigation
12:00 – 1:15 PM ET	Lunch (on your own)
1:15 – 2:00 PM ET	Introduction to QUAL2Kw  *Interactive: Guided Walk through the example model
2:00–3:30 PM ET	- Data Compilation - Common sources, spatial and temporal resolution for model types) - Data systems - Incorporating data into model - Addressing data gaps *Interactive: Comparing data and model needs (steady state vs. dynamic)
3:30 – 3:45 PM ET	Break
3:45 – 5:00 PM ET	Full Group Plenary  <i>Utilizing SWAT+ for TMDL Characterization: A Wisconsin Case Study</i> Eric Hettler, Wisconsin DNR

6:00 – 8:00 PM ET

### Informal Networking Event

Victory Brewing Company - 1776 Benjamin Franklin Pkwy, Philadelphia, PA 19103

## WEDNESDAY, SEPTEMBER 18

9:00 – 9:30 AM ET

Recap and questions from Tuesday

9:30 – 10:15 AM ET

### Model Configuration

- Channel representation
- Grid resolution and extent
- Boundary conditions
- Parameters

10:15 – 10:30 AM ET

Break

10:30 – 11:30 AM ET

Interactive: QUAL2Kw model setup

11:30 – 12:00 PM ET

### Model Calibration and Evaluation (Part 1)

- Selecting parameters to calibrate
- Process and evaluation
- Sensitivity analyses

12:00 – 1:15 PM ET

Lunch (on your own)

1:15 – 2:00 PM ET

### Model Calibration and Evaluation (Part 2)

- Post-processing and visualization
- Quantitative vs. qualitative examples
- Error statistics

2:00 – 3:30 PM ET

\*Interactive: Work through QUAL2Kw calibration

\*Interactive: Post-processing, visualization, and error statistics

3:30 – 3:45 PM ET

Break

3:45 – 5:00 PM ET

Full Group Plenary

### *Chesapeake Climate Change Assessment Using A Suite of Atmospheric, Land Use, Watershed, and Estuarine Models*

Lewis Linker, U.S. EPA Chesapeake Bay Program Office

6:00 – 8:00 PM ET

### Informal Networking Event

City Tap House - 100 N 18th St, Philadelphia, PA 19103

## THURSDAY, SEPTEMBER 19

9:00 – 9:30 AM ET

Recap and questions from Tuesday/Wednesday

9:30 – 10:00 AM ET

### Model Acceptance

- Acceptance process
- Marking acceptance

10:00 – 10:30 AM ET

Model Report  
- QAPPs and modeling reports  
- Contents  
- Review components

10:30 – 10:45 AM ET

Break

10:45 – 12:00 PM ET

Interactive: Guided tour through modeling report  
Breakouts: Identify questions or issues with modeling report

12:00 – 1:15 PM ET

Lunch (on your own)

1:15 – 3:30 PM ET

Scenarios and decision making  
\*Interactive: Review example project scenarios; Create your own QUAL2Kw scenarios

3:30 – 3:45 PM ET

Break

3:45 – 5:00 PM ET

Full Group Plenary  
  
Leveraging Nutrient Inventories to Inform Water Quality Modeling and Restoration Effort  
Robert Sabo, U.S. EPA

## FRIDAY, SEPTEMBER 20

9:00 – 9:45 AM ET

- Public Process  
- Modeling Defensibility and communication

9:45 – 10:45 AM ET

- Recap and questions from the week  
- Wrap-up and resources

10:45 – 11:00 AM ET

Break

11:00 – 12:00 PM ET

Workshop Wrap-Up