## 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 selectionModel 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

6:00 – 8:00 PM ET Informal Networking Event

Reading Terminal Market - 1136 Arch St, Philadelphia, PA 19107

1634 Eye Street NW, Suite 750 Washington, DC 20006 (202) 756-0605 www.acwa-us.org

## **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

- Selecting parameters to calibrate

- Process and evaluation

- Sensitivity analyses

12:00 – 1:15 PM ET Lunch (on your own)

1:15 – 2:15 PM ET Interactive: Work through QUAL2Kw calibration

2:00—3:30 PM ET Model Evaluation

- Post-processing and visualization

- Quantitative vs. qualitative examples

- Error statistics

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

3:30 – 3:45 PM ET Break

3:45 – 5:00 PM ET Full Group Plenary

6:00 – 8:00 PM ET Informal Networking Event

Harp & Crown - 1525 Sansom St, Philadelphia, PA 19102

#### **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

1634 Eye Street NW, Suite 750 Washington, DC 20006 (202) 756-0605 www.acwa-us.org 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

## 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