# Y C E Z D Y

# Exploring and Applying Surface Water Modeling Tools to Achieve Program Goals

U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA)

### TRAINING WORKSHOP

FOR EPA, STATES, TRIBES, AND TERRITORIES

#### **DATES**

**TUESDAY, OCTOBER 29 - FRIDAY, NOVEMBER 1, 2019** 

#### **WORKSHOP GOAL AND INTENDED AUDIENCES**

Provide modeling training and information sharing opportunities to:

- Beginner modelers (people who want to learn how to use and apply models but have limited modeling experience or have intermediate/advanced experience only with certain models)
- Model managers (people who manage modeling contracts, review models, manage modelers, and communicate decisions based on modeling results to other managers and the public, but do not necessarily run models themselves)

For workshop registration and logistical information, go to <a href="http://watermodelingworkshop.tetratech.com">http://watermodelingworkshop.tetratech.com</a>



#### MONDAY AFTERNOON

#### 1:00 pm-4:00 pm

#### **Pre-Workshop Training**

Tools for Processing Data for Model Inputs and Reviewing Model Results

Trainers: Tim Wool, Dr. Glenn Fernandez, Amanda Howell, and Dr. John Davis (EPA Region 4 Modeling Team)

#### **TUESDAY**

#### 9:00 am-12:00 pm\*

**PLENARY SESSION** 

# Setting the Stage and Understanding Models

#### Welcome and Kick-Off

Speakers: Ken McQueen, Regional Administrator, EPA Region 6 (invited), Charles Maguire, Director, Water Division, EPA Region 6 (invited), Taimur A. Shaikh, Ph.D., EPA Region 6

# The Direction of Modeling (Opening Perspective)

Jeff Berckes, TMDL Program Coordinator, Iowa Department of Natural Resources

#### Regional Perspectives/ Mini-Case Studies

Application of SnapPlus for TMDL Implementation, Eric Hettler, Wisconsin DNR (Additional case studies to be added)

#### 12:00 pm-1:30 pm

Lunch (On Your Own)

#### 1:30 pm-5:00 pm\*

BREAKOUT SESSIONS BY TRACK (Select one)

Hands-on Modeling Training Track-HSPF

#### **HSPF Overview and Getting Started**

Trainer: Taimur A. Shaikh, Ph.D. (EPA Region 6) (Limited to 35 participants)

#### Hands-on Modeling Training Track-WASP

#### WASP Overview and Getting Started

Trainer: Tim Wool, Senior Water Quality Modeler (EPA Region 4)

(Limited to 30 participants)

#### Model Overview Track

(Tentative list of models for this session; subject to change.)

#### Water Quality Models

CEQUALW2

Qual2k

#### LLRM

Trainers: Dr. Glenn Fernandez, Amanda Howell, and Dr. John Davis (EPA Region 4)

#### Model Managers Track

#### Managing Modeling Projects

Contracting for Modeling Services, Traci lott, CT DEEP

Contractor Modeling Support for TMDL Development: A Florida Experience, Erin Rasnake, FL DEP

(Additional presentations to be added)

#### **WEDNESDAY**

#### 9:00 am-12:00 pm\*

**PLENARY SESSION** 

#### Models at Work

Modeling Data Considerations for Calibration and Acceptance

Speakers: Tim Wool, Dr. Glenn Fernandez, Amanda Howell, and Dr. John Davis (EPA Region 4 Modeling Team)

#### 12:00 pm-1:30 pm

Lunch (On Your Own)

#### 1:30 pm-5:00 pm\*

BREAKOUT SESSIONS BY TRACK (Select one)

#### Hands-on Modeling Training Track-HSPF

#### **HSPF** Review and Exercises

Trainer: Taimur A. Shaikh, Ph.D. (EPA Region 6) (Limited to 30 participants)

#### Hands-on Modeling Training Track-WASP

#### **WASP Review and Exercises**

Trainer: Tim Wool, Senior Water Quality Modeler (EPA Region 4) (Limited to 30 participants)

#### Model Overview Track

(Tentative list of models for this session; subject to change.)

#### Watershed Models

HEC-RAS

LSPC

#### SWMM

Trainers: Dr. Glenn Fernandez, Amanda Howell, and Dr. John Davis (EPA Region 4)

#### Model Managers Track

#### **Model Communications**

- Interpreting model results
- Preparing modelers to communicate results to various audiences
- Tips and case studies

#### **THURSDAY**

#### 9:00 am-12:00 pm\*

**PLENARY SESSION** 

# Parameter and Program Considerations in Modeling

TMDL Nutrient Target Setting for Lake Thonotosassa, Kevin Petus, Florida Department of Environmental Protection

Optimizing Season/Discharge Windows in WRTDS (Weighted Regressions on Time, Discharge, and Season – USGS, Eric Hettler and Aaron Fisch, Wisconsin DNR (Additional case studies to be added)

#### 12:00 pm-1:30 pm

Lunch (On Your Own)

#### 1:30 pm-5:00 pm\*

BREAKOUT SESSIONS BY TRACK (Select one)

#### Hands-on Modeling Training Track-HSPF

#### **HSPF Exercises and Wrap-Up**

Trainer: Taimur A. Shaikh, Ph.D. (EPA Region 6) (Limited to 30 participants)

#### Hands-on Modeling Training Track-WASP

#### WASP Exercises and Wrap-Up

Trainer: Tim Wool, Senior Water Quality Modeler (EPA Region 4) (Limited to 30 participants)

#### Model Overview Track

"Choose the Model" Case Studies Trainers: Dr. Glenn Fernandez, Amanda Howell, and Dr. John Davis (EPA Region 4)

#### Model Managers Track

## Model Output Review and Application

- Troubleshooting modeling project challenges
- Modeling for CWA program implementation

#### FRIDAY MORNING

#### 9:00 am-12:00 pm\*

PLENARY SESSION

#### Forecasting the Future of Modeling

Anticipated Model Updates and Modeling Needs Self-Developed Breakout Discussion Sessions (based on participant interest from sign-ups on Day 1)

#### Closing Remarks/Wrap-Up