



# California Water and Environmental Modeling Forum

Promoting Excellence and Consensus in Water and Environmental Modeling

P.O. Box 5051, Vacaville, CA 95696 • 916-850-3110 • [cwemf@cwemf.org](mailto:cwemf@cwemf.org) • [www.cwemf.org](http://www.cwemf.org)

## Technical Workshop IWFM Demand Calculator (IDC) Version 2015 Training (In cooperation with the California Department of Water Resources)

December 14 – 15, 2022 8:30 a.m. to 4:30 p.m.  
California Natural Resources Headquarters  
715 P Street, Room 2-310, Sacramento, CA 95814

This workshop is open to CWEMF members only  
Workshop Fee: **\$100** or **\$30** for students  
Refreshments included both days, lunch not included  
Pre-registration is requested. Please email [cwemf@cwemf.org](mailto:cwemf@cwemf.org) to reserve your seat  
and include “CWEMF IDC Training” in the subject line  
Payment can be made via Credit Card/PayPal at [www.cwemf.org](http://www.cwemf.org) or send a check to:  
CWEMF, P.O. Box 5051, Vacaville, CA 95696-5051  
Please go to [www.cwemf.org](http://www.cwemf.org) for information on renewing your membership or becoming a member

IWFM Demand Calculator (IDC) version 2015 is the stand-alone root zone simulation component of DWR’s Integrated Water Flow Model (IWFM-2015). It calculates agricultural, managed wetland, and urban water demands at river-basin scale under user-specified climatic, soil, farm-water management, and land-use characteristics. It also routes precipitation and irrigation water through the root zone and simulates land-surface and root zone flow processes. Participants planning to attend the next IWFM workshop are encouraged to attend the IDC workshop since the root zone module of IWFM will be covered in much more detail in this workshop.

Workshop participants will learn the basic concepts and mathematical methods used in IDC and will have hands-on exercises that will teach them how to build models from scratch. The software tools developed to aid IDC users in pre- and post-processing model data and simulation results will also be discussed.

**Workshop participants will need to bring a laptop computer with several programs installed**, including MS Excel and a powerful text editor such as TextPad. Before the workshop, participants will need to download workshop materials (presentations, hands-on examples, and guidelines for these examples) and install the IDC pre- and post-processor tools. Directions will be provided.

### Major topics will include:

- Overview of IDC-2015
- Land-use and soil moisture routing
- Simulation of water demand for “non-ponded” crops
- Simulation of water demand for “ponded” crops (i.e., rice and managed wetlands)
- Simulation of urban water demands
- Mixing dynamic demand computation with user-specified demands
- Simulation of root water uptake from groundwater
- Simulation of deficit irrigation
- Demonstration of pre-processing and post-processor tools