



California Water and Environment Modeling Forum

Promoting Excellence and Consensus in Water and Environment Modeling

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Technical Workshop

IWFM Demand Calculator (IDC) Version 2015 Training

(in cooperation with the California Department of Water Resources)

April 30 – May 1, 2019, 9:00am to 4:30pm

West Yost Associates Training Room

2020 Research Park Dr., Suite 100, Davis, CA 95618

(Note: Parking is free)

Workshop Fee: \$100 for CWEMF members, \$200 for non-members, and \$40 for students.
Pre-registration is requested. Refreshments included all days, lunch not included.

To reserve your seat, please email cwemf@cwemf.org and pay via credit card/PayPal at www.cwemf.org or send a check to: CWEMF, P.O. Box 5051, Vacaville, CA 95696-5051.

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.

The 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 that are 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