



Center for Advanced Decision Support for
Water and Environmental Systems (CADSWES)

UNIVERSITY OF COLORADO **BOULDER**

Welcome to the 2019 RiverWare User Group Meeting

2019 RiverWare User Group Meeting

August 28-29, 2019

2019 Sesquiennial RiverWare User Group Meeting

- Hear about interesting applications
- Find out about new/upcoming enhancements and the future of RiverWare
- Meet other users and network
- Get to know the CADSWES Team
- Ask those burning questions
- Voice your opinion about what is needed or what you like/don't like



The CADSWES RiverWare Team



Center for Advanced Decision Support for
Water and Environmental Systems (CADSWES)
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Water Engineers, Trainers, Help Desk, Modelers:

David Neumann

Mitch Clement

Software:

Bill Oakley

Patrick Lynn

Robin Balduf

Operations Research Analyst: **Tim Magee**

Documents: **Nancy Stevens**

IT Support: **Jim Pasquotto**

Licensing: **Jessica Lee**

Finances: **Kathryn Baack**

Business and Office Mgr: **Gwen Miller**

Director and Project Manager: **Edie Zagona**

Students: **Mitchell Frischmeyer, Sheila Alemany, Nathan Bonham**

Who uses RiverWare?

Bureau of Reclamation – 27 offices

Tennessee Valley Authority – River Operations, Knoxville, TN

U.S. Army Corps of Engineers - 13 offices

10 Federal Agencies, Tribes and research labs

31 State, City and District Water Agencies

8 Electric Utilities – US and Canada

23 Consulting companies and NGOs

12 Universities and research groups

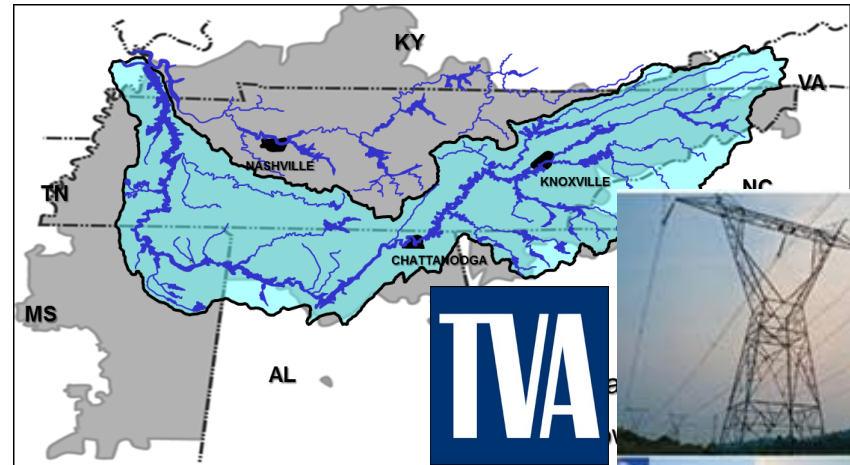
19 Foreign Entities

On the Agenda..... Evolving applications

Colorado River Basin



Drought Contingency Plan
 Tribal Water Agreement
 Mexico Treaty Minute 323
 Upcoming: 2026 guidelines



Nile River Basin



On the Agenda..... New applications



Tacoma Water Plan



On the Agenda....New in RiverWare!



RiverWISE application for Stakeholders

- Model and Rule Comparison tools
- Browser-based, searchable online help
- Cloud Computing

R&D

Risk-informed Reservoir Operations
Reclamation GP

Exploring linkages between an electricity production cost models and RiverWare routing model – NREL, Sandia

Robust Decision Making with Multi-objective evolutionary optimization BOR UC, LC

Future Directions?

Help us identify user needs....

- Web Maps and Web Viewers
- Smarter windowing controls and options
- Model version control
- Integration into data/model frameworks (RiverSMART, FEWS, CWMS, HEC-RTS, HEC-WAT)
- More powerful and flexible hydropower optimization
- Simulation based optimization (MOEAs)
- Viewing ensemble results
- Database Connections



Important Logistics

HANDOUTS – Agenda, list of enhancements

SPEAKERS GUIDELINES

- Microphones
- Please watch time! 5-min, 1-min cards
- Use mouse cursor, not pointers

USE MICROPHONES for all speaking incl. questions and comments from audience

WEBEX viewers – chat w/questions or ask to speak

Open Mic Session at End

- Tell us about other applications or new projects
- Questions – how to...?
- Unmet modeling or processing needs
- Issues with the software
- Requests for enhancements
- Anything else you would like to share

Wi-Fi

“UCAR Visitor” network

Enter Name/Email for 4hrs of use

Verify within your email for 2days+ of use

Networking and Socializing

Breaks – drinks and snacks

Lunch provided today in entry

Breakout space – for meeting, etc

Happy Hour this afternoon – sign up