



# EPA Region 6 Water Quality Modeling Conference & Workshop

November 18<sup>th</sup> – 21<sup>th</sup>, 2013

EPA Region 6 Conference Center – 12<sup>th</sup> Floor  
1445 Ross Avenue Dallas, TX 75202

Workshops: Please plan on participating in the workshop. We recommend bringing a laptop with the following software installed.

Software	Download from	Version
Water Resource Data Base	<a href="http://www.wrdb.com/">http://www.wrdb.com/</a>	6.0.0.xx
BASINS	<a href="http://www.aquaterra.com/basins4/">http://www.aquaterra.com/basins4/</a>	4.1
LAQUAL	<a href="http://www.deq.louisiana.gov/portal/tabid/130/Default.aspx">www.deq.louisiana.gov/portal/tabid/130/Default.aspx</a>	9.08
QUAL2K	<a href="http://epa.gov/athens/wwqtsc/html/qual2k.html">http://epa.gov/athens/wwqtsc/html/qual2k.html</a>	2.11b8
LSPC	<a href="http://www.epa.gov/athens/wwqtsc/html/lspc.html">http://www.epa.gov/athens/wwqtsc/html/lspc.html</a>	3.x
CE-QUAL-W2	<a href="http://www.ce.pdx.edu/w2/">http://www.ce.pdx.edu/w2/</a>	3.71

**Monday, (November 18, 2013)**

11:00 – 11:10 AM	Introduction to Workshop Session 1	Richard Wooster, EPA-R6 TMDL Section Chief
11:10 – 12:10 PM	Part 1 – Water Resource Data Base (WRDB) – Assorted Tools	Tim Wool, EPA-R4
12:10 – 1:30 PM	Lunch	
1:30 – 1:45 PM	Welcome to Region 6 / Dallas, TX	Bill Honker, EPA-R6 WQ Protection Division Director & Claudia Hosch, EPA-R6 WQ-P Associate Division Director
1:45 – 2:30 PM	Part 2 – Steady State 1-D models – LAQUAL	Roger Miranda, TCEQ
2:30 – 3:30 PM	Part 3 – Steady State 1-D models – QUAL2K	Robert Ambrose, Ret. EPA-ORD
3:30 – 3:45 PM	Break	
3:45 – 4:55 PM	Part 4 – CE-QUAL-W2	Dr. Scott Wells, Portland State University
4:55 – 5:00 PM	Summary of Training Session and Closing Remarks	Dr. Taimur Shaikh, EPA-R6
	Workshop Session Outcomes: <ul style="list-style-type: none"> <li>• Participants will learn how to import data using WRDB.</li> <li>• Participants will learn how to use WRDB and other data sources to construct a “QUAL” input file</li> </ul>	
5:00 PM	Adjourn	

**Tuesday, (November 19, 2013)**

8:30 – 8:35 AM	Introduction to Workshop Session 2	Dr. Taimur Shaikh, EPA-R6
8:35 – 10:00 AM	Loading Simulation Program C++ (LSPC)	Tim Wool, EPA-R4

10:00 – 10:15 AM	Break	
10:15 – 11:30 AM	LSPC Evaluation, Process Files and Output	Tim Wool, EPA-R4
11:30 – 1:00 PM	Lunch	
1:00 – 4:25 PM	Workshop Session 3: LSPC/WRDB/EFDC/WASP	Tim Wool, EPA-R4
4:25 – 4:30 PM	Summary of Training Session and Closing Remarks	Dr. Taimur Shaikh, EPA-R6
	Workshop 2 &3 Session Outcomes: <ul style="list-style-type: none"> <li>• Participants will learn how to use WRDB and transfer output data from LSPC.</li> <li>• Participants will get hands-on experience with LSPC/EFDC/WASP models.</li> <li>• Participants will learn how to evaluate hydrodynamic model outputs generated by EFDC and water quality outputs from WASP.</li> </ul>	
4:30 PM	Adjourn	
<b>Wednesday, (November 20, 2013)</b>		
8:30 – 8:35 AM	Introduction	Dr. Taimur Shaikh, EPA-R6
8:40 – 9:45 AM	<i>Keynote:</i> In Service of Dreams – The Science & Practice of Water Quality Modeling	Robert Ambrose, Ret. EPA-ORD
9:45 – 10:00 AM	Break	
10:00 – 12:00 PM	The state of Water Quality Modeling in Region 6	Dr. Taimur Shaikh, EPA-R6
	State of Surface Water Quality Modeling in the State	Mark Derichsweiler, ODEQ
		Selena Medrano, ADEQ
		Heidi Henderson, NMED
		Chuck Berger, LDEQ
	Roger Miranda, TCEQ	
	Summary of State Session and Closing Remarks	Richard Wooster, EPA-R6
	State Session Outcomes: <ul style="list-style-type: none"> <li>• Participants will learn about the in-house status and capabilities of each of the state regulatory agencies with respect to modeling.</li> </ul>	

	<ul style="list-style-type: none"> <li>Participants will share and discuss issues and struggles pertinent to modeling.</li> </ul>	
12:00 – 1:15 PM	Lunch	
1:15 – 1:20 PM	Introduction to the Academic/Research Sessions	Dr. Taimur Shaikh, EPA-R6
1:20 – 2:10 PM	Using SWAT to Enhance Watershed Based Plans in the Spavinaw Creek and Illinois River Watersheds of Oklahoma	Dr. Dan Storm, Oklahoma State University
2:10 – 2:20 PM	Break	
2:20 – 3:20 PM	Water Quality Forecasting in Korea & Improving Water Quality Forecasting via Real-Time Data Assimilation	Dr. DJ Seo, University of Texas at Arlington
3:20 – 4:30 PM	How do you validate a watershed model without calibration data?	Dr. Brian Haggard, University of Arkansas
	Academic/Research Session Outcomes: <ul style="list-style-type: none"> <li>Participants will learn about the various areas of research where water quality modeling is being applied and new/alternative ways to approach modeled problems in water quality.</li> </ul>	
4:30 PM	Adjourn	
5:30 PM	Dinner	
<b>Thursday, (November 21, 2013)</b>		
8:30 – 8:35 AM	Introduction to the Nutrient Session	Dr. Taimur Shaikh, EPA-R6
8:35 – 9:20 AM	Modeling Hypoxia in the Gulf of Mexico	Dr. Russell Kreis, EPA-ORD-NHEERL
9:20 – 10:20 AM	Connecting Nutrient Loads to Biological Impacts	Dr. Joseph DePinto, LimnoTech
	Nutrient Session Outcomes: <ul style="list-style-type: none"> <li>Participants will learn and identify general issues with regards to modeling nutrient sources and impacts.</li> <li>Participants will identify ideas on how to better address nutrients in water quality modeling.</li> </ul>	
10:20 – 10:30 AM	Break	
10:30 – 10:35 AM	Introduction to the Open Forum and General Discussion	Dr. Taimur Shaikh, EPA-R6

10:35 – 11:30 AM	Technical Issues Related to TMDL Modeling	Open Discussion/Round Table
11:30 – 12:45 PM	Lunch	
12:45 – 1:45 PM	Mommas don't let your babies grow up to be modeling cowboys	Dr. Scott Wells, Portland State University
1:45 – 2:40 PM	CREM Efforts in the Area of Water Quality Modeling	Lara Phelps, EPA-CREM via Adobe Connect
	Open Forum and General Discussion Session Outcome: <ul style="list-style-type: none"> <li>Participants will share technical issues they have come across and discuss possible solutions to those issues.</li> </ul>	
2:40 – 2:50 PM	Evaluation of the Conference and Workshop	Dr. Taimur Shaikh, EPA-R6
2:50 – 3:00 PM	Looking Towards Future Meetings and Closing Remarks	Richard Wooster, EPA-R6 TMDL Section Chief
3:00 PM	Adjourn – Safe Travels	