

Texas Watershed Planning Training Project
CWA 319(h) NPS Grant Program
TCEQ Contract No. 582-11-12866

Quarter no. 3 From 5/31/13 Through 8/31/13

I. Abstract

Work this quarter primarily focused on preparing and updating materials for registration and advertising of Watershed Modeling using LDC and SELECT, Watershed Coordinators Roundtable and the Introduction to Modeling training, and Short Course. We conducted the Texas Watershed Training on Watershed Modeling using LDC and SELECT. Tasks also included updating webpages, updating agendas, confirming speakers, opening registration, and advertising for additional trainings to be offered including the July Watershed Coordinators Roundtable, Texas Watershed Planning Short Course, and Fundamentals of Developing a Water Quality Monitoring Plan.

II. Overall Progress and Results by Objective and Task

OBJECTIVE 1: PROJECT COORDINATION AND ADMINISTRATION

Task 1.1: Project Oversight – TWRI will provide technical and fiscal oversight of the staff and/or subgrantee(s)/subcontractor(s) to ensure Tasks and Deliverables are acceptable and completed as schedule and within budget. With the TCEQ Project Manager authorization, TWRI may secure the services of subgrantee(s)/subcontractor(s) as necessary for technical support, repairs and training. Project oversight status will be provided to TCEQ with the Quarter Progress Reports (QPRs).

The following actions have been completed during this reporting period:

- a. TWRI continually monitors project status and budget to ensure tasks and deliverables are acceptable and completed as schedule and within budget.

91% Complete

Task 1.2: QPRs – Progress will be reported to TCEQ by the 15th of the month following each state fiscal quarter for incorporation into the Grant Reporting and Tracking System (GRTS). The Reports are to include the following: status of deliverables for each task; narrative description in Progress Report format.

The following actions have been completed during this reporting period:

- a. TWRI/OSRS submitted Year 3, Quarter 3 Progress Report on July 15, 2013.

91% Complete

Task 1.3: Reimbursement Forms – Reimbursement forms will be submitted to TCEQ by the last day of the month following each state fiscal quarter. For the last reporting period of the project, Reimbursement Forms are required on a monthly basis.

The following actions have been completed during this reporting period:

- a. The total federal funds remaining balance as of 9/1/2013 was \$46,746.

78% Complete

Task 1.4: Contract Communication – TWRI will participate in a post-award orientation meeting with TCEQ within 30 days of contract execution. TWRI will maintain regular telephone and/or email communication with the TCEQ Project Manager regarding the status and progress of the project in regard to any matters that require attention between QPRs. This will include a call or meeting each January, April, July, and October. Minutes recording the important items discussed and decisions made during each call will be attached to each QPR. Matters that must be communicated to the TCEQ Project Manager in the interim between QPRs include:

- § *Requests for prior approval of activities or expenditures for which the contract requires advance approval or that are not specifically included in the scope of work*
- § *Notification in advance when TWRI has scheduled public meetings or events, or other major task activities under this contract*

Information regarding events or circumstances that may require changes to the budget, scope of work, or schedule of deliverables; these events or circumstances must be reported within 48 hours of discovery.

The following actions have been completed during this reporting period:

- a. TWRI worked with TCEQ project manager to finalize agenda's for the July Roundtable, Fundamentals of Developing a Water Quality Monitoring Plan, and Intro to Watershed Modeling training through email and teleconference calls.
- b. TWRI worked with TCEQ project manager, TSSWCB and EPA to update the short course agenda.
- c. TWRI has worked with TCEQ project manager to determine dates and locations of the upcoming trainings in August, October and November 2013.

91% Complete

Task 1.5: Annual Report Article – TWRI will provide an article for the Nonpoint Source (NPS) Annual Report upon request by TCEQ. This report is produced annually in accordance with Section 319(h) of the Clean Water Act (CWA), and it is used to report Texas' progress toward meeting the CWA 319 goals and objectives and toward implementing its strategies as defined in the Texas Nonpoint Source Management Program. The article will include a brief summary of the project and describe the activities of the past fiscal year.

The following actions have been completed during this reporting period:

- a. TWRI developed the Annual Report Article and submitted it to TCEQ along with Photos and photo captions on August 6, 2013.

100% Complete

OBJECTIVE 2: MAINTAIN WEB-BASED WATERSHED PLANNING RESOURCES FOR TEXAS WATERSHED COORDINATORS

Task 2.1: Watershed Training Webpage – TWRI will host and maintain an Internet website for information sharing and use by watershed coordinators (<http://watershedplanning.tamu.edu>).

The following actions have been completed during this reporting period:

- a. The Year 3, Quarter 3 Progress Report was posted on the watershed training webpage in the “Projects” section
- b. The “Training” section was updated on the Watershed Planning website; information included:
 - § Introduction to Modeling course – advertised and registration conducted.
 - § Texas Watershed Planning Short Course – advertised date and location
 - § Texas Watershed Coordinators Roundtable – advertised on website date, RSVP open and location
 - § Fundamentals of Developing a Water Quality Monitoring Plan – advertised on website.
- c. There were 611 visits from 388 unique visitors to the webpage during this quarter.

91% Complete

Task 2.2: Maintain Directory of Watershed Resources – TWRI will coordinate with the EFC at Boise State University to maintain the Directory of Watershed Resources with data for Texas-specific funding programs. The Directory of Watershed Resources is an on-line, searchable database for watershed restoration funding. The database includes information on federal, state, private, and other funding sources and assistance. This will allow Texas users to query information in a variety of ways including agency sponsor, keyword, or by a detailed search.

The following actions have been completed during this reporting period:

- a. TWRI continues to advertise the online directory through the website.
- b. TWRI continues to advertise the online directory at programs.

92% Complete

Task 2.3: Report on the Maintenance of Web-based Watershed Planning Resources for Texas Watershed Coordinators – TWRI will submit a report detailing activities conducted under Task 2 during the current contract.

The following actions have been completed during this reporting period:

- a. No activity to report this quarter.

0% Complete

OBJECTIVE 3: CONDUCT WATERSHED PLANNING SHORT COURSE

Task 3.1: Organize and Deliver 3 WPSC Events – TWRI will continue to coordinate and offer WPSC annually. To accomplish this, TWRI with assistance from the Project Team, will identify key speakers for the course, make arrangements for facilities, advertise the WPSC, conduct registration, and facilitate the delivery of three (3) Texas WPSCs to a total of 80-120 water resource professionals in Texas and the surrounding region. Certificates will be provided to participants upon completion of the course. A registration fee of \$375 will be charged to WPSC participants. One WPSC Scholarship will be offered per year to assist those who lack funds to attend the WPSC. TWRI will work closely with TCEQ and the Project Team to assess the need for and timing of these short courses to best meets the needs of the state. As needed, travel for speakers will be paid for through project funds.

The following actions have been completed during this reporting period:

- a. The next Texas Watershed Planning Short Course is planned for November 4-8, 2013.
- b. The Mayan Ranch in Bandera is booked for this week for the Course.
- c. Speakers have already been contacted to confirm on this date.
- d. Advertised this training at the July Watershed Coordinators Roundtable and on the watershed coordinators listserve.
- e. Registration is open for this course and we already have 3 registered participants.

85% Complete

Task 3.2: Administer Questionnaires and Evaluations – TWRI will oversee the administration of questionnaires and evaluations to gauge the knowledge gained and how effective the course was for each course participant. Questionnaires will be administered at the beginning and end of selected short courses to demonstrate the course's effectiveness and to identify areas needing adjustment. Evaluations will be completed at the end of each short course to receive comments and participant input and also determine watersheds represented and new WPPs initiated by participants at the short course.

The following actions have been completed during this reporting period:

- b. Questionnaires and evaluations evaluated in finalizing the agenda and speakers for the upcoming Course.
- c. Questionnaires and evaluations will be printed to be utilized at the November Course.

85% Complete

Task 3.3: Report on Watershed Planning Short Course Task – TWRI will provide a report detailing the WPSC held and associated activities conducted under Task 3.

The following actions have been completed during this reporting period:

- a. No activity to report this quarter.

0% Complete

OBJECTIVE 4: PROVIDE PROFESSIONAL DEVELOPMENT TRAINING

Task 4.1: Organize and Deliver “Introduction to Modeling” Training – A two-day course will be developed by TWRI and Texas A&M University System personnel in years 1-2 and delivered in subsequent years of the project to provide watershed coordinators with an introduction to watershed modeling. Development is year 1 and 2. Delivery is year 2 and 3. Topics of the course will include (1) purposes and limitations of different models, (2) timelines, (3) data needs (watershed characterization, water quality information), (4) cost estimates, (5) literature values vs. monitoring, (6) Quality Assurance Project Plans (QAPPs), (7) request for bids, (8) presenting models to stakeholders, and (9) contractor interaction with stakeholder groups. The course registration fee is to be determined.

The following actions have been completed during this reporting period:

- a. Additional edits were made to the agenda this quarter and all speakers were contacted and confirmed to finalize the agenda based on evaluation results from the first training.
- b. Registration was conducted during this quarter and the course was held for a second time on August 13, 2013.
- c. The training date had to change as the main instructor Dr. Srinivasan was no longer available for the previous date as he would be out of the country.
- d. The training was advertised through the watershed coordinators listserv and a press release on July 29, 2013.
- e. The registration fee was determined to be \$75 for the one-day training.
- f. A total of 28 participants and instructors were at the August Training.
- g. Materials were provided to TCEQ project manager.

100% Complete

Task 4.2: Organize and Deliver Training on Watershed modeling using LDC and SELECT – LDCs provide a graphical representation of stream flow and pollutant loading whereby real data can be compared to a stream’s maximum allowable load to indicate reductions needed and help identify the type of pollutant load (i.e. point source vs. NPS). SELECT provides a spatially explicit analysis of land use/land cover, animals/humans in watersheds, and other parameters to assess/determine potential sources of bacteria. The models are being used for Total Maximum Daily Load (TMDL) and WPP development. A two-day course will be developed and delivered in subsequent years of the project. A \$100 registration fee will be charged for these two-day courses.

The following actions have been completed during this reporting period:

- a. TWRI conducted the first training on November 6-7, 2012.
- b. TWRI updated the website with information for the second training.
- c. TWRI advertised for this training at the January Watershed Coordinator Roundtable and Introduction to Modeling Training.
- d. Presentations and the manual were updated and printed.
- e. The computer lab has been reserved and contract for this training in May 7-8, 2013 at the Horticulture and Forest Science Bldg computer lab.

- f. The training had 18 attendees to the second training in May 2013.
- g. Evaluations were compiled for this training and submitted to TCEQ with deliverables.

100% Complete

Task 4.3: Organize and Deliver Training on Stakeholder Facilitation – Stakeholder facilitation continues to be identified by watershed coordinators as a training need in Texas. To provide this, TWRI will deliver 2 day-long trainings on stakeholder facilitation. A \$30 registration fee will be charged for the stakeholder facilitation programs.

The following actions have been completed during this reporting period:

- a. This task is complete:
 - § The first Stakeholder Facilitation training was held July 26, 2011 in Austin in conjunction with the January 2011 Texas Watershed Coordinator Roundtable.
 - § The second Stakeholder Facilitation Training was held January 24, 2012 in Waco in conjunction with the January 2012 Texas Watershed Coordinator Roundtable.

100% Complete

Task 4.4: Organize and Deliver Training on Water Quality Monitoring – Training will be developed by TWRI and others and will cover monitoring for (1) watershed characterization and (2) evaluation of water quality improvements and BMP effectiveness from implementation activities. Topics of the training will include: data quality objectives; identifying available data; determining data gaps and needs; monitoring plan development to meet data quality objectives and support modeling; selecting monitoring types, locations, equipment and laboratory analysis; obtaining stakeholder input; developing QAPPs for monitoring and acquiring data; and a workshop portion for collaboratively creating monitoring plans. The course(s) will be developed in years 1-2, and a minimum of one course per year will be delivered in subsequent years.

The following actions have been completed during this reporting period:

- a. The Fundamentals of Developing a Water Quality Monitoring Plan workshop was conducted in Austin and a total of 25 registered and 5 presenters.
- b. Course materials were compiled and the workshop manual was developed and printed for the course.
- c. The date has been set and advertised for the next training to be held in October 23-24, 2013.
- d. The agenda was updated and registration materials have been updated and prepared.
- e. Registration has been opened and it has been advertised on the Watershed Coordinators Listserve.

78% Complete

Task 4.5: Administer Questionnaires and Evaluations –TWRI will oversee the administration of questionnaires and evaluations to gauge the knowledge gained and how effective the course was for each course participant. Questionnaires will be administered at the beginning and end of each course to demonstrate the course's effectiveness and to identify areas needing adjustment.

The following actions have been completed during this reporting period:

- a. TWRI administered questionnaires and evaluations to Stakeholder Facilitation Training participants for each training (July 2011 and January 2012).
- b. TWRI Program Coordinator developed evaluations for the Water Quality Monitoring and LDC/SELECT trainings.
- c. Evaluations were conducted for the Short Course Training.
- d. Training evaluations and questionnaires were administered and compiled for the Fundamentals of Water Quality Monitoring Training.
- e. Training evaluations and questionnaires were administered and compiled for LDC/SELECT Training held in November 2012 and May 2013.
- f. Training evaluations were developed and conducted for the Texas Watershed Coordinator roundtable.
- g. Training evaluations were developed and conducted for the Introduction to Modeling I and II.

85% Complete

Task 4.6: Report on Professional Development Trainings Provided –TWRI will submit a report detailing professional development trainings provided and associated activities conducted under Task 4.

The following actions have been completed during this reporting period:

- a. No activity to report this quarter.

0% Complete

**OBJECTIVE 5: ORGANIZE AND FACILITATE
TEXAS WATERSHED COORDINATOR ROUNDTABLES**

Task 5.1: Facilitate Watershed Coordinator Roundtables – TWRI will coordinate with TCEQ, TSSWCB and EPA to organize and facilitate a total of six (6) semi-annual Watershed Coordinator Roundtables. These face-to-face Roundtables will build upon the fundamental knowledge conveyed through the WPSC and establish a continuing dialogue between watershed coordinators in order to facilitate interactive solutions to common issues being faced by watershed coordinators statewide. Periodically, TWRI, in conjunction with TCEQ and the Project Team will review the continued need for semi-annual Roundtables as well as their specific timing.

The following actions have been completed during this reporting period:

- a. All of the speakers were contacted and confirmed.
- b. The agenda was finalized and updated on the website. A Roundtable was held on July 30, 2013 with 66 participants in attendance.
- c. It was advertised through the listserve, website, and a press release.
- d. Presentations, videos and a participant list can be found on the Watershed Planning website: <http://watershedplanning.tamu.edu/developing/roundtable/july-30-2013/>
- e. This quarter focused on preparations and conducting the July 30, 2013 Roundtable in Dallas, TX.

- f. Materials for the course were provided to TCEQ.

100% Complete

Task 5.2: Administer Evaluations – TWRI will oversee the administration of evaluations to gauge the knowledge gained and how effective the Roundtable was for each participant. Evaluations will be administered at the end of each Roundtable to determine future topics of discussion.

The following actions have been completed during this reporting period:

- a. Evaluations were conducted and have been summarized on the July 30, 2013 Roundtable.

100% Complete

Task 5.3: Report on the Texas Watershed Coordinator Roundtables – TWRI will submit a report detailing Texas Watershed Coordinator Roundtable meetings provided and associated activities conducted under Task 5.

The following actions have been completed during this reporting period:

- a. TWRI is working on a draft of this report and will complete the report this next quarter.

30% Complete

OBJECTIVE 6: SUBMIT FINAL REPORT

Task 6.1: Draft Report

The following actions have been completed during this reporting period:

- a. No activity to report this quarter.

0% Complete

Task 6.2: Final Report

The following actions have been completed during this reporting period:

- a. No activity to report this quarter.

0% Complete

III. Related Issues/Current Problems and Favorable or Unusual Developments

- N/A

IV. Projected Work for Next Quarter

- Prepare to conduct Fundamentals for Water Quality Monitoring Training in October 2013.
- Continue registration and advertising for the Fundamentals of Developing a Water Quality Monitoring Plan and Short Course training in Nov.
- TWRI will prepare and submit Year 3, Quarter 4 Progress Report

Appendix A: Roundtable – Agenda, Sign-in Sheet, and Evaluation Results

Appendix B: Roundtable – Agenda, Sign-in Sheet, and Evaluation Results

Appendix C: October 23-24, 2013 Fundamentals of Developing a Water Quality Monitoring Plan in Temple, TX –Agenda

Texas Watershed Coordinator Roundtable
“Urban BMPs and Low Impact Development”

Tuesday, July 30, 2013
9:30 a.m. — 3:30 p.m.

Texas A&M AgriLife Research and Extension Center at Dallas
Building C, Large Hall
17360 Coit Road, Dallas, TX 75252

- | | |
|--------------------|--|
| 9:30 – 9:45 a.m. | Welcome & Introductions [Kevin Wagner, Texas Water Resources Institute] |
| 9:45 – 10:45 a.m. | Low Impact Development Design, Construction, and Performance [Dr. Fouad Jaber, Texas AgriLife Extension Service] |
| 10:45 – 12:30 a.m. | Tour of installed LID practices onsite |
| 12:30 – 1:10 p.m. | Catered working lunch (or bring your own) [RSVP required] |
| 1:10 – 2:00 p.m. | Updated EPA 319 Grant Program Guidance [Philip Crocker, EPA] |
| 2:00 – 2:20 p.m. | Networking Break |
| 2:20 – 2:35 p.m. | Stormwater Rulemaking Update [Suzanna M. Perea, EPA] |
| 2:35 – 2:55 p.m. | Dallas LID Green Roadway Winner: South Lamar [Ben McWhorter, Freese & Nichols, Inc.] |
| 2:55 – 3:30 p.m. | Wrap-Up [Nikki Dictson, Texas Water Resources Institute] <ul style="list-style-type: none">· Upcoming Trainings:<ul style="list-style-type: none">- Texas Watershed Steward- Texas Stream Team- Texas Well Owner Network- Riparian and Stream Ecosystem Education- Fundamentals of Developing a Water Quality Monitoring Plan- Watershed Modeling Using LDC and SELECT- Introduction to Modeling· Next Roundtable<ul style="list-style-type: none">- Date: January 2014 |

Fundamentals of Developing a Water Quality Monitoring Plan
October 23-24, 2013

USDA ARS Facility in Temple, Texas

Agenda

Wednesday, October 3

9:00 a.m. to 5 p.m.

- 9:00 – 9:30 a.m. **Introductions & Workshop Overview** *Larry Hauck, TLAER*
Group introductions and Workshop purpose: Provide participants with the tools to develop and implement a monitoring program for watershed characterization and evaluation of water quality improvements and BMP effectiveness from implementation activities. Brief watershed overview of case studies presented throughout the day.
- 9:30 – 10:00 a.m. **Data Quality Objectives & Project Planning** *EPA*
Defining the water quality problem, determining monitoring objectives, and establishing data quality objectives at the outset. Long term data needs of the watershed; analytical framework to determine loadings in a watershed protection plan; routine monitoring vs. BMP evaluation (Elements H and I)
- 10:00 – 10:15 a.m. **Case Study: Introduction**
- 10:15 – 10:30 a.m. **Break**
- 10:30 – 11:00 a.m. **Inventorying and Acquiring Existing Resources** *Patricia Wise, TCEQ*
Review 305(b) process & existing monitoring framework
Inventory existing/historic monitoring sites & data (TCEQ, USGS, others); Acquiring existing data
- 11:00 – 11:45 a.m. **Watershed Characterization & Sufficient Data** *Anne McFarland, TLAER*
Review/select experimental/statistical design – reconnaissance/synoptic, plot, single watershed/before-after, above-and-below watersheds, paired watersheds, multiple watersheds, trend stations
Assess ability of existing data to meet objectives & identify data gaps and data needs
Assessing # of additional sites, samples, and frequency needed
- 11:45 – 12:00 p.m. **Case Study: Defining the problem, monitoring objectives, and data quality Inventorying and acquiring existing data, selecting experimental design, and assessing data sufficiency and data gaps.**
- 12:00 – 1:00 p.m. **Lunch** (*catered lunch or bring your own*)
- 1:00 – 2:15 p.m. **Selecting Monitoring Design** *Larry Hauck, TLAER*
Scale – point, plot, field, watershed
Sample type – grab, composite – time or flow weighted, depth integrated, continuous
Variables monitored (cost & cost cutting considerations)
Sample locations, sampling frequency, and monitoring duration
Station types – discharge measurement, water sample collection – grab vs automated, precip
Collection & Analysis Methods – collection, preservation, transport, analysis, QA/QC
Routine monitoring vs. BMP evaluation; flow and surrogates for flow
National Water Quality Monitoring Handbook
- 2:15 – 2:45 p.m. **Introduction to Stormwater Sampling** *Daren Harmel, USDA-ARS*
Understanding the why's and how's of stormwater sampling.
- 2:45 – 3:00 p.m. **Break**
- 3:00 – 3:30 p.m. **Other Considerations & Review Building a Successful Monitoring Plan** *Larry Hauck, TLAER*
Monitoring plan development to meet data quality objectives and Support Modeling; equipment; budgets; personnel constraints and available resources; and the importance of project planning.

- 3:30 – 4:00 p.m. **Case Study: Selecting Monitoring Design**
- 4:00 – 5:00 p.m. **Workshop: Create a Monitoring Plan**..... *Group*
Divide into six groups and outline and develop a monitoring plan using National WQ Handbook worksheet.
[watershed assessment; effectiveness monitoring (watershed scale; BMPs)]
**EPA QA Training*

Thursday, October 4

8:30 a.m. to 3:30 p.m.

- 8:30 – 9:30 a.m. **Workshop Follow Up: Present/Discuss Monitoring Plan** *Group*
Each group presents monitoring plan (10 minutes per group).
- 9:30 – 10:00 a.m. **Quality Assurance Project Plans**..... *Kyle Girten, TCEQ*
Integrating monitoring design into QAPPs & QAPP development tips; session will also review different QAPP types and templates.
- 10:00 – 10:15 a.m. **Break & Travel to Monitoring Site**
- 10:15 – 12:00 p.m. **Monitoring Demonstrations** *Kolbe & Blair/Tidwell/Harmel*
- Christine Kolbe and Michele Blair (TCEQ) - routine monitoring
- Daren Harmel (USDA-ARS) & Russell Park - stormwater monitoring (ISCO)
- Travis Tidwell (Texas Stream Team) - volunteer monitoring
**30 minutes per station*
- 12:00 – 1:00 p.m. **Travel to Workshop Location & Lunch** (*catered lunch or bring your own*)
- 1:00 – 2:00 p.m. **Statistical Tools For Analysis** *Anne McFarland, TLAER*
Review and demonstrate common statistical analysis for water quality data analysis. Discuss role of statistics in final reporting of data, how they are tied back to overall monitoring objectives, and use for evaluating BMP effectiveness and quantifying load reductions.
- 2:00 – 2:30 p.m. **Uncertainty in Monitoring** *Daren Harmel, USDA-ARS*
- 2:30 – 3:00 p.m. **Stakeholder Communications** *Larry Hauck, TLAER*
Determining BMPs; incorporating analysis of sampling uncertainty and translating both to stakeholders; getting information up front.
**include list of contacts for regional offices; RRC, etc. (who to contact for complaints)*
- 3:00 – 3:30 p.m. **Wrap Up**..... *Larry Hauck, TLAER*
Discuss how monitoring folds into watershed based plans and ties back to watershed-based planning efforts.

#	First	Last	Organization
1	Kristi	Alexander	Consultant Double Bayou WPP
2	Blake	Allredge	Texas A&M AgriLife Extension Service
3	Allen	Berthold	Texas Water Resources Institute
4	Daniel	Bezden	Productive Creations
5	Mike	Bira	U.S. EPA Region 6
6	Justin	Bower	Houston Galveston Area Council
7	Mike	Brasberger	DC Contractors
8	Mike	Brasberger Sr.	DC Contractors
9	Henry	Brewer	U.S. EPA Region 6
10	Matt	Brown	Texas Water Resources Institute
11	Tyler	Bryant	DC Contractors
12	Bill	Carter	Texas Commission on Environmental Quality
13	Jody	Cason	Texas Agrilife Research
14	Anju	Chalise	Texas Commission on Environmental Quality
15	Philip	Crocker	U.S. EPA Region 6
16	Sharon	Daugherty	U.S. EPA Region 6
17	Nikki	Dictson	Texas Water Resources Institute
18	Nikki	Dictson	Texas Water Resources Institute
19	Nick	Dornak	Plum Creek Watershed Partnership
20	Nick	Dornak	Plum Creek Watershed Partnership
21	Steven	Eubanks	City of Fort Worth Stormwater Management
22	Steven	Eubanks	City of Fort Worth Stormwater Management
23	Brian	Fontenot	U.S. EPA Region 6
24	Rocky	Freund	Nueces River Authority
25	Dan	Gaskins	Texas A&M Agrilife Extension Service (WFSC)
26	Drew	Gholson	Texas A&M Agrilife Extension
27	Kyle	Girten	Texas Commission on Environmental Quality
28	Alexander	Goldberg	
29	Kritt	Govil	Texas Water Resources Institute
30	Lucas	Gregory	Texas Water Resources Institute
31	Javier	Guerrero	Texas A&M University - Kingsville
32	Timothy	Hair	Mask Landscape Architecture, LLC
33	Faith	Hambleton	Texas Commission on Environmental Quality
34	Lori	Hazel	Texas A&M Forest Service
35	Tina	Hendon	Tarrant Regional Water District
36	Fouad	Jaber	Texas AgriLife Extension Service
37	Nikki	Jackson	Texas Institute for Applied Environmental Research
38	Chris	Johnson	City of Fort Worth
39	Jenna	Jones	City of Waco Water Utility
40	Ken	Klaveness	Trinity Waters
41	Brian	Koch	Texas State Soil and Water Conservation Board
42	Ann	Kovich	Half Associates
43	Brad	Lamb	US EPA Region 6
44	Ward	Ling	AgriLife Extension
45	Jana	Lloyd	Texas State Soil and Water Conservation Board
46	Travis	Marsh	AgriLife Research, Stephenville
47	Mike	Marshall	Texas A&M Institute of Renewable Natural Resources
48	Ben	McWhorter	Freese & Nichols, Inc.
49	Sandhya	Mohan	Texas A& M AgriLife Research
50	Ranjan	Muttiah	City of Fort Worth Stormwater Management

51	Suzanna	Perea	U.S. EPA Region 6
52	Lisa	Prcin	Texas A&M AgriLife Research - Blackland Research Center
53	Doug	Reitmeyer	GC Experts
54	Galen	Roberts	Texas A&M AgriLife Extension Service
55	Nick	Russo	Harris County
56	Augusto	Sanchez	Texas A&M University - Kingsville
57	Hughes	Simpson	Texas A&M Forest Service
58	Anthony	Suttice	U.S. EPA Region 6
59	Leah	Taylor	Texas Institute for Applied Environmental Research
60	Eugene	Thilsted	U.S. EPA Region 6
61	Travis	Tidwell	The Meadows Center for Water and the Environment - Texas Stream Team
62	Mark	Tyson	Texas A&M AgriLife Extension
63	Mary	Van Zant	The Meadows Center for Water and the Environment
64	Jason	Voight	Alan Plummer Associates
65	Kevin	Wagner	Texas Water Resources Institute
66	Clint	Wolfe	Texas A&M AgriLife Research
67	Michelle	Wood-Ramirez	Texas AgriLife Extension
68	Charriss	York	Texas A&M AgriLife

July 2013 Roundtable Evals
Dallas, TX

<i>*(27) evaluations received (# participants)</i>	<i>Poor</i>	<i>Fair</i>	<i>Good</i>	<i>Excellent</i>	<i>Notes</i>
<i>What was your overall satisfaction with the Roundtable?</i>	0	1	17	9	
<i>Will the information presented in the Roundtable help you?</i>	0	1	18	8	
<i>What topic(s) is (are) most valuable to you:</i>					
2	Everything - great day				
	retention pond demo				
10	LID info				
	First speaker talking about cost vs. impact				
	WPP development status in TX				
	upcoming trainings				
5	319 updates/guidance				
2	CWA stormwater program				
	MS4				
3	Education/outreach/BMPs				
2	EPA update/funding				
	Tours/ learning about way to conserve water				
	changes showing cost effectiveness & productivity of BMP's/LIDs				
<i>What topic(s) should have been addressed (or addressed more thoroughly)?</i>					
	Technologies that stop and/or filter stormwater carried pollutants				
	touch on rural issues more (wildlife, grazing, etc)				
	All were useful				
	Measuring of pollutant being removed... almost every current study did not do this?				
	comparative costs of Lid materials/methods				
	no comment				
	successful implementation and long-term buy in; measuring success for non-impaired bodies				
	More info about outdoor tour - it was so hot and professional dress was inappropriate				
	Maybe more info on pollutant removal by impervious cover in parking lots				
	MS4 "over & above" and how to write stormwater Mst plans and other docs so that 319 funding will be possible				
	Enjoyed the tours of the research plots. I would suggest selecting future venues that allow for demonstration & facilitation of informal				
	NPDES/319 relationship (i.e. changing separation of the two, etc)				
	Local plans or city plans regarding water conservation				
	How can we get entities (cities, homeowners, developers) to use LID? Roadblocks and solutions				
	LID design & performance				
<i>Please list any recommendations or suggestions for the next Roundtable:</i>					
	Offer corporate presentations				

July 2013 Roundtable Evals
Dallas, TX

	Discussions of other funding sources (outside 319 funds) and examples of past projects
	Maybe invite commercial vendors to present showing procedures that work
	Challenges in WPP development in TX - what would make this process go faster?
	none
	Food was awesome. Presentation could be done indoors to talk about LID tour and then walk by to see what was discussed.
	More state agency input TCEQ, TSSWCB
	Hawaii/Fiji.U.S Virgin Isles. Funding outside of 319, Estuary programs - connection/relationship to watershed plans
	Austin, TX
	Outreach and how to measure success with outreach & technology transfer projects (to fulfill 319 requirements)
	RESTORE Act funding
	Urban-rural interactions
	Presentation by a city that is doing LID activities
	More of an "input forum" from state and watershed folk with EPA issues like WBP acceptance, BMP effectiveness monitoring criteria,
	Need speakers to talk about control of stormwater, how to prevent pollution from entering our streams and lakes
	Learning about EPA violations, how to minimize these. Etc.
	More in depth about 319 & funding I-Plans vs WBPs
Additional Comments	
	Join "save our rain" on LinkedIn then connect with me : www.linkedin.com/in/dougtheexpert (group)
	Host roundtable at a venue we haven't used before i.e coastal area, San Antonio
	Great job TWRI! Looks like yall made some effort in contacting the private sector, good to see them there
	Lunch was awesome :)
2	Great meeting!!!
	Very useful meeting for networking
	Loved the LID tour
	Nice work as always!
	Found spilled mustard on my agenda
	Thanks! (Also would love to have a coastal focus/location!)
	Ask presenters not to include basic info in their slides (many slides by EPA; stormwater causes impairment, stormwater has pollutants).

Introduction to Modeling Training

Texas Commission on Environmental Quality, Bldg. F Room 3202A • Austin, TX

Tuesday, August 13, 2013

Agenda

Tuesday, August 13

9 a.m. to 5 p.m.

- 9:00 a.m. **Introductions, Overview & How Modeling fits into Watershed Planning**Nikki Dictson, TWRI
Provide participants with an introduction to watershed modeling and models available for use. Participants will gain an understanding of what model is needed for watershed protection planning, how modeling results fit in to 9 Elements, and the resources needed to take next steps.
- 9:30 a.m. **Models Overview: Purposes and Limitations**R. Srinivasan, TAMU
*This presentation will provide a broad overview of purposes and limitations of currently available models including their strengths and weaknesses; validation and calibration.
Handout: EPA Guidelines Decision Matrix*
- 10:30 a.m. **Break**
- 10:45 a.m. **Models Overview: Purposes and Limitations** continued
- 12:15 p.m. **Lunch** (*catered lunch or bring your own*)
- 1:00 p.m. **Factors to Consider when Modeling: Time & Money**R. Srinivasan, TAMU
What are the data needs and requirements for models? This presentation will discuss model capabilities; time; money; etc. and the data available for calibrating/validating models.
- 2:00 p.m. **Using Simple Tools** Larry Hauck, TIAER
This presentation will discuss how to model with limited observations as well as minimum data or analysis needed (LDC, estimator, export coefficient, literature values, GIS landuse based)
- 2:45 – 3:00 p.m. **Break**
- 3:00 – 4:00 p.m. **Quality Assurance Project Plans (QAPPs)**.....TBD, TCEQ
Present on QAPPs from a conceptual standpoint. What needs to be covered; how the data need to be described; references to uncertainty estimation and sensitivity analysis; requirements for gathering existing data.
- 4:00 – 4:45 p.m. **Stakeholder Communications and Modeling**.....Nikki Dictson, TWRI
Provide examples on the process of bringing stakeholders to the table to understand the model, get consensus approval of inputs and presenting modeling results to engage stakeholders in implementation.
- 4:45 – 5:00 p.m. **Wrap Up**Nikki Dictson, TWRI

Introduction to Modeling II

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5	Nikki	Jackson	TIAER	njackson@tiar.tarleton.edu
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23	Henry	Brewer	US EPA Region 6	
24	Kritt	Govil	TWRI	
25	R	Srini	SSL	
26	Larry	Hauck	TIAER	
27	Nikki	Dictson	TWRI	
28	Kyle	Girten	TCEQ	

Introduction to Modeling

Tuesday, August 13, 2013

Texas Commission on Environmental Quality, Bldg. F Room 3202A • Austin, TX

Registration Form

(Please type or print) – Complete for Participant List

First Name: _____ Last Name: _____

Title: _____ Agency/Organization: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ Fax: _____ Email: _____

Any special needs (dietary or other): _____

_____ **Registration** @ **\$75.00** \$_____

Total Fees Submitted \$_____

PAY BY:

- Purchase Order (government/state only)** If paying by purchase order, please fax or email your registration form to Texas Water Resources Institute and submit copy to your bookkeeper for payment processing.
- Check**- payable to Texas Water Resources Institute, Account **06-215071-89534**
- Credit Card– MasterCard, Visa or American Express accepted**
Mail or fax completed credit card authorization form (see below)

Send payment to:

Texas Water Resources Institute
ATTN: Intro to Modeling Workshop
1500 Research Pkwy., Suite A110
College Station, TX 77843-2118

Questions may be directed to:
Nikki Dictson
Phone: (979) 458-5915
Fax: (979) 845-0662
E-mail: n-dictson@tamu.edu

Tax I.D. 74-6000541

This registration form serves as an invoice. Separate invoices will not be mailed. There will be no refunds for cancellations. Substitutions are allowed, providing that notification is sent to Nikki Dictson (n-dictson@tamu.edu) in advance.

**Texas AgriLife Extension Service
Credit Card Authorization Form**

Please print or type:

Date: _____

Name (as it appears on card): _____
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Registrant's Name(s) (if different from above): _____
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Billing Address for Credit Card: _____

Description of Purchase: Registration for Introduction to Modeling Workshop
Texas A&M University, College Station, Texas

Amount: \$ _____

____ MasterCard ____ Visa ____ American Express

(Please check type of credit card above)

Credit Card Number:

3 digit security code from back of card:

Expiration Date: _____

Signature: _____

Telephone Number: _____

Appendix D: Press Releases for training held during quarter

Texas Water Resources Institute to present water modeling workshop Aug. 13 in Austin

View all articles by Paul Schattenberg →

July 29, 2013

AUSTIN—The [Texas Water Resources Institute](#) is presenting “Introduction to Watershed Modeling” on Aug. 13 at the Texas Commission on Environmental Quality headquarters, 12100 Park 35 Circle, Austin.



The institute is part of [Texas A&M AgriLife Research](#), the [Texas A&M AgriLife Extension Service](#) and the [College of Agriculture and Life Sciences at Texas A&M University](#).

The workshop is set for 9 a.m. to 5 p.m. in Building F, Room 3202A. Cost is \$75 and includes course materials, a catered lunch and a certificate of completion.

The workshop will provide watershed coordinators and water professionals with an introduction to watershed modeling, said Nikki Dictson, AgriLife Extension program specialist for the institute.

She said models that will be discussed include load duration curves, the Spreadsheet Tool for Estimating Pollutant Load, Generalized Watershed Loading Function, P8 urban catchment model, Soil and Water Assessment Tool, Agricultural Non-Point Source Pollution Model, Hydrologic Simulation Program, also known as HSFP-FORTRAN, and the Storm Water Management Model, or SWMM.

Participants will gain an understanding of which model is needed for their particular watershed protection planning, how modeling fits into the U.S. Environmental Protection Agency’s nine elements of watershed planning and the resources needed to take the next steps, Dictson said.

Dr. R. Srinivasan, director of the Texas A&M University Spatial Sciences Laboratory, will talk on the purpose, limitations, time, costs and different requirements of watershed models currently available.

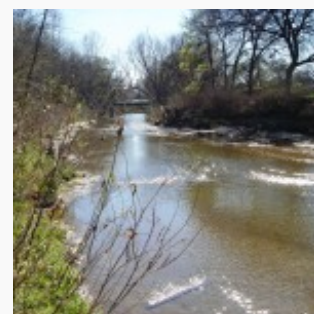
Dr. Larry Hauck, lead scientist for Tarleton State University’s Texas Institute of Applied Environmental Research, will present information on tools that can be used with limited data and under resource constraints, such as load duration curves and GIS land-use-based methods.

Kyle Girtten, Nonpoint Source Program team leader for the Texas Commission on Environmental Quality, will explain quality assurance project plans, including what the plans should cover and how the data need to be described.

“The course will conclude with a presentation on stakeholder communications and modeling,” Dictson said. “Bringing stakeholders to the table to understand the model, facilitating consensus and approval of inputs and presenting modeling results to engage stakeholders is very important.”

One Texas Water Resources Institute continuing education unit will be provided upon course completion.

Participants may register for this training at <http://watershedplanning.tamu.edu/training/> and more information is



The Texas Water Resources Institute will present an “Introduction to water Modeling” workshop for water management professionals on Aug. 13 at TCEQ headquarters in Austin. The workshop will address the use of various models, quality assurance plans and the need for stakeholder communications. (Texas Water Resource Institute photo)

available at the website or by contacting Dictson at 979-458-5915 or n-dictson@tamu.edu.

The training course is supported by funding from the Texas Commission on Environmental Quality through a U.S. Environmental Protection agency nonpoint source grant.

Texas Water Resources Institute to present watershed roundtable July 30 in Dallas

View all articles by Paul Schattenberg →

July 17, 2013

DALLAS — The Texas Water Resources Institute will present a Texas watershed coordinator roundtable July 30 in Dallas.

The institute is part of Texas A&M AgriLife Research, Texas A&M AgriLife Extension Service and the College of Agriculture and Life Sciences at Texas A&M University.

There is no charge for admission to the program, which will be from 9:30 a.m. to 3:30 p.m. at the Texas A&M AgriLife Research and Extension Center, 17360 Coit Road.

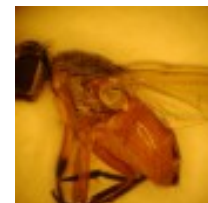
The roundtable will focus on urban best-management practices for water resource conservation and low-impact development for watershed coordinators and other water resource professionals, program presenters said.

“These roundtables, held biannually, provide a forum for watershed coordinators where they can develop interactive solutions to common watershed issues faced throughout the state and receive program updates on a variety of issues,” said Nikki Dictson, AgriLife Extension program specialist for the institute.

Dr. Fouad Jaber, AgriLife Extension specialist in integrated water resources at the Dallas center, will present information on low-impact development design, construction and performance and give a tour of low-impact development practices demonstrated at the center.

Philip Crocker and Suzanna Perea of the U.S. Environmental Protection Agency will update attendees on the topics of nonpoint source pollution program and stormwater rulemaking, respectively.

A catered lunch is available for \$10, and there is a vegetarian option. RSVP is required and participants may register and get more information at <http://watershedplanning.tamu.edu/training/>



The roundtable July 30 in Dallas will include a tour and demonstration of low-impact design related to water use and conservation. (Texas A&M AgriLife Research photo by Robert Burns)

2013 Texas Nonpoint Source Annual Report

Texas Watershed Planning Training Project

Watershed planning remains a high priority to address the more than 568 impaired water body segments in Texas. A well-trained workforce is necessary to effectively and consistently address these impairments in a timely and cost-effective manner. Through the Texas Watershed Planning Short Course, the biannual Watershed Coordinator Roundtables and other relevant trainings organized by the Texas Water Resources Institute and supported by the Texas Commission on Environmental Quality and Environmental Protection Agency, the institute has equipped many in the field with relevant training.

After sponsoring the sixth week-long Texas Watershed Planning Short Course in September 2012 with 17 water professionals attending, the institute sponsored two Texas Watershed Coordinator Roundtables with 125 water professionals attending in Fiscal Year 2013. The institute has extended its efforts in watershed training programs by developing and conducting three additional courses developed in Fiscal Year 2012. The course, "Introduction to Modeling" was offered in January and August of 2013 with more than 29 attendees and "Watershed Modeling using Load Duration Curves (LDC) and the Spatially Explicit Load Enrichment Calculation Tool (SELECT)" was offered in November 2012 and May 2013 with 36 attendees. "Fundamentals of Developing a Water Quality Monitoring Plan" was offered in October 2012 with 25 attendees. In addition to the course, the project maintains the Watershed Coordinators Listserv with 406 subscribers. The listserv sends updates and announcements of training opportunities and issues relevant to water quality and watershed planning. The listserv and the roundtables provide a forum for maintaining dialogue between watershed coordinators, facilitating interactive solutions to common watershed issues and adding to the fundamental knowledge conveyed at the Short Course. Information on these courses and guidance on watershed planning is available on the Texas Watershed Planning website <<http://watershedplanning.tamu.edu/>>. This website had 1,405 unique visitors and 5,164 page views to date for Fiscal Year 2013.

The courses, listserv and website have led to significant improvements in watershed planning and implementation efforts in Texas.