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

Quarter no. 6 From 9/1/12 Through 11/31/12

I. Abstract

Work this quarter primarily focused on registration and conducting the Texas Watershed Planning Short Course, Fundamentals of Developing a Water Quality Monitoring Plan; Watershed Modeling using LDC/SELECT and developing the Introduction to Modeling training. Tasks also included updating webpages, opening registration, and advertising for additional trainings to be offered including the January Watershed Coordinators Roundtable and Introduction to Modeling Training.

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.

64% 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 submitted Year 2, Quarter 5 Progress Report on September 14, 2012.

64% 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 expended as of 11/30/2012 were $102,483.

51% 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. A contract teleconference meeting was held on 10/15/12 with Lauren Bilbe, Kevin Wagner and Nikki Dictson to discuss the project timeline for spending funds and completing trainings in the final year, January roundtable agenda, next short course, and the end date of the contract.
b. TWRI worked with TCEQ project manager to finalize agenda's for the January Roundtable and Intro to Modeling training through email and teleconference calls.
c. TWRI provided a letter for the 11-12866 Close Out Strategy to TCEQ on November 12, 2012.

60% 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. The Texas Watershed Planning Training article for the NPS Annual Report was sent to TCEQ in Quarter 5 (July 19, 2012).

67% 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 2, Quarter 5 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:
    - Texas Watershed Planning Short Course link to the Extension conference Services site with registration and agenda.
    - Fundamentals of Developing a Water Quality Monitoring Plan – agenda and registration opened
    - Watershed Modeling using LDC and SELECT – agenda and registration opened
    - Texas Watershed Coordinators Roundtable – agenda and registration opened
    - Introduction to Modeling training – agenda and registration opened
    - Updated contact information on website and registration forms.
c. There were 326 unique visitors to the webpage during this quarter.

64% 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 Director 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 began working with the Environmental Finance Center last quarter to update the directory and continues to work with them on updating the directory with new resources.

64% 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. September was focused on the Short Course manual development and final preparations. See Appendix A for final agenda.
b. Preparations for speakers travel and attendees were finalized.
c. Name tags, evaluations, and certificates were developed and printed for the course.
d. A scholarship for the short course was provided to Travis Tidwell with the Texas Stream Team was selected to receive the short course scholarship this year.
e. Training Program Coordinator Contacted speakers in regards to travel information; speaker biographies; and presentations and materials.
f. Course binders were prepared for each participant and EPA Handbooks as well as a cd of additional resources were included.
g. The September 24-28 Texas Watershed Planning Short Course was conducted and had 17 attendees. See Appendix B for participant list.
h. The next short course is planned for November 4-8, 2012. Speakers have already been contacted about this date.

67% 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 were updated and printed.
c. Questionnaires and evaluations were distributed at the Short Course.
d. They were compiled and distributed to the instructors and project managers. See Appendix C.

67% 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. See Appendix D.
b. Registration was opened for the first training on January 23, 2013. The registration form was updated. Currently, we have received four registrations.
c. The training has been advertised through the watershed coordinators listserve and a draft press release was developed in this quarter.
d. The registration fee was determined to be $75 for the one-day training.

25% 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 program coordinated and advertised for this training.
b. Presentations and the manual were finalized and printed.

c. Computer software and files were provided to the computer IT folks to be placed on the classroom computers for the training. The computers were tested the day before the workshop.
d. There were 18 attendees at the workshop. See Appendix E for Agenda and Roster.

60% 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. Registration was opened for the Fundamentals of Developing a Water Quality Monitoring Plan workshop and a total of xx registered.
b. Course materials were compiled and the workshop manual was developed and printed.

60% 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. These training evaluations and questionnaires were administered and compiled for the Fundamentals of Water Quality Monitoring Training. See Appendix F.
e. These training evaluations and questionnaires were administered and compiled for LDC/SELECT Training. See Appendix G.

45% 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. A Roundtable was held on July 26, 2012 with 64 participants in attendance.
b. Presentations, videos and a participant list can be found on the Watershed Planning website: http://watershedplanning.tamu.edu/developing/roundtable/july-26-2012/
c. This quarter focused on preparations for the January 2013 Roundtable to be held in conjunction with an Introduction to Modeling training (both in Temple).
d. All of the speakers were contacted and confirmed.
e. The agenda was finalized and updated on the website. See Appendix H.
f. The RSVP system was opened and advertised to the watershed planning listserve and currently 42 have provided an RSVP.

60% 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. Nothing to Report.

60% 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. No activity to report this quarter.

0% 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 of Unusual Developments

- N/A

IV. Projected Work for Next Quarter

- Conduct the Texas Watershed Coordinator Roundtable on January 22, 2013
- Conduct the workshop: Introduction to Modeling on January 23, 2013.
- Schedule dates and facilities and start advertising for the workshop: Watershed Modeling using LDC and SELECT in 2013.
- Schedule dates and facilities for 2nd Fundamentals for Water Quality Monitoring Training in September 2013.
- TWRI will prepare and submit Year 2, Quarter 7 Progress Report

Appendix A: Watershed Planning Short Course – Agenda

Texas Watershed Planning Short Course

Course Agenda – September 24-28, 2012

Monday, September 24, 2012 **Facilitator: Kevin Wagner**

11:00 – 1:00 pm **Registration (Distribute Knowledge Assessment)**
A pre-course examination will determine the knowledge level of each participant prior to going through the course. The pre-course exam results will be compared to the post-course exam results to assess course impact/knowledge gained.

1:00 – 1:30 pm **Introduction..... Wagner**
This session will provide the group (1) the opportunity to introduce themselves and the watersheds they are working in, (2) information on facilities and ground rules, and (3) an overview of the course, its purpose and structure.

1:30 – 2:30 pm **Nine Elements of Watershed Protection Plans & EPA's Expectations.....Bira**
This session will provide an overview of the Nine Elements to be included in a WPP as outlined in Chapter 2 of the *Handbook* and the EPA Region 6 Review Guide for Watershed-Based Plans.

2:30 – 3:30 pm **Perspectives on Watershed Planning .....Panel**
A panel composed of Mike Bira (EPA), Aaron Wendt (TSSWCB), and Kerry Niemann (TCEQ) will discuss (1) the goals and importance of WPPs, (2) how WPPs fit into state and federal objectives and interact with other state and federal programs, and (3) current issues affecting watershed planning efforts.

3:30 – 3:50 pm **Break**

3:50 – 5:15 pm **Working with Stakeholders to Move the Process Forward .....MacPherson**
Stakeholders form the backbone of your watershed planning effort. Learn tips on how to get off on the right foot and keep the energy going throughout your watershed planning and implementation program. Topics to be addressed include: determining who needs to be involved, making meetings count, diffusing conflict, making decisions using a consensus-based approach, and sustaining the stakeholder group. This session will focus on Chapter 3 of the *Handbook*.

5:15 – 6:00 pm **Partnership Building Experiences in Plum Creek..... Dictson**
Experiences in Plum Creek watershed with getting local involvement, announcing meetings, setting up the committee and subcommittees, publicizing the effort, what needs to be discussed/decided at each meeting, and timelines will be discussed. Sample invitation letters, ground rules, press releases, and other materials will be provided.

6:45 pm **Dinner**

Tuesday, September 25, 2012 **Facilitator: Nikki Dictson**

7:00 – 8:00 am **Breakfast**

8:15 – 8:30 am **Expectations for Element E ..... Dictson**
The expectations for and an example of Element E will be reviewed and discussed to provide the group an understanding of the information/education components of the WPP.

8:30 – 9:30 am **Using Outreach to Develop & Implement WPPs .....MacPherson**
Outreach is a powerful tool to get stakeholders involved early in the planning process, promoting behavior change in the watershed, and enhancing the implementation of your management strategies in the watershed. Learn tips and tools to conduct effective outreach without breaking the bank. This session will focus on Chapter 12.2 of the *Handbook*.

9:30 – 9:45 am **Texas Watershed Steward Program .....Roberts**
This session provides an overview of the Texas Watershed Steward Program, a sciences-based, watershed education designed to help citizens identify and take action to address local water quality issues. Incorporation of this program into WPP efforts empowers stakeholders by providing them with the knowledge to make informed decisions about water resources.

9:45 – 10:05 am **Break**

10:05 – 10:35 am **Expectations for Element A .....Fontenot**
The expectations for and an example of Element A will be reviewed and discussed to provide the group an understanding of what is necessary to identify causes and sources of water quality impairments and concerns.

10:35 – 11:15 am **Defining the Scope of the WPP.....Wendt**
This session will discuss identifying issues of concern, developing preliminary goals, and selecting indicators of environmental conditions as outlined in Chapter 4 of the *Handbook*.

11:15 – 12:00 pm **Gathering data to assess your watershed..... Dictson**
What data do you need? Where do you find the data? How do you get info from TCEQ and other agencies? This session will examine (1) materials from Chapters 5-6 of the *Handbook*; (2) how GIS may be used for watershed analysis, source identification and watershed characterization; and (3) sources of data in Texas and how best to obtain it.

12:00 – 1:00 pm **Lunch**

1:00 – 2:10 pm **Analyzing Data to Characterize Your Watershed.....Davenport**
How do you analyze your data? What tools are available? Is modeling needed? This session will concentrate on materials from Chapters 7 and 8.1-8.2 of the *Handbook* in order to provide the group an understanding of the methods/options available for analyzing watershed data and estimating pollutant loads. Simplistic methods for calculating loads and assessing sources will be presented. The

session will also examine refining goals, identifying management objectives, and determining load reductions needed as described in Chapter 9 of the *Handbook*.

2:10 – 3:10 pm **The Good, the Bad, and the Ugly .....MacPherson**
Participants will learn techniques to improve their outreach materials and critique samples to determine their effectiveness in reaching the audience and communicating the message.

3:10 – 3:30 pm **Break**

3:30 – 4:00 pm **Expectations for Element B .....Wendt**
The expectations for Element B will be reviewed and discussed to provide the group with an understanding of the level of detail and effort needed to determine 'acceptable' pollutant loadings, and whether or not load reductions are needed to reach acceptable levels.

4:00 – 5:15 pm **Overview of Models for Estimating Pollutant Loads & Reductions.....Hauck**
If modeling is needed, what models are available and how do you select a model? This session will present materials from Chapter 8.3-8.5 of the *Handbook* to give the group an overview of the models available, expectations for what each model can deliver (i.e. what you can and cannot get from them), costs, and factors to consider when selecting models (i.e. timelines and data needs for complex watershed models).

6:45 pm **Dinner**

Wednesday, September 26, 2012 **Facilitator: Kevin Wagner**

7:00 – 8:00 am **Breakfast**

8:00 – 9:00 am **Simple Tools for Estimating Loads and Load Reductions.....Hauck**
This session will describe and demonstrate simple tools (i.e. load duration curves (LDC) and SELECT model) to determine needed pollutant load reductions and assess potential sources of the pollutants. This session will also demonstrate the use and integration of LDC, and SELECT models in the development of the Plum Creek WPP.

9:00 – 9:30 am **Overview and Expectations for Element C .....Fontenot**
This session will provide a discussion of expectations for Element C as well as steps to select management practices as described in Chapter 10 of the *Handbook.*

9:30 – 10:00 am **TSSWCB Presentation ....Wendt**

10:00 – 10:20 am **Break**

10:20 – 11:10 am **Agricultural NPS Measures.... ..... Wagner**
Agricultural NPS measures in Texas are typically implemented through the SWCDs, TSSWCB, and NRCS as part of a Water Quality Management Plan or Resource Management System. This session provides an overview of (1)

agricultural BMPs and these plans, (2) how to develop a preliminary list of agricultural BMPs to address the issues of concern, (3) finding information on the effectiveness of agricultural BMPs, and (4) estimating BMP implementation costs.

11:10 – 12:00 pm **Urban NPS Measures ..... Davenport**
This session will provide an overview of (1) urban NPS measures, (2) how to develop a preliminary list of urban BMPs to address the issues of concern, (3) finding information on the effectiveness of urban BMPs, (4) estimating BMP implementation costs; and (5) stormwater permitting.

12:00 – 1:00 pm **Lunch**

1:00 – 2:30 pm **Wastewater Treatment Systems, Wastewater Issues, ... Magin/Gerlich Permits and Online Wastewater Treatment Modules**
A presentation providing a brief overview of wastewater treatment systems (WWTFs and OSSFs), their impacts, and effectiveness in removing pollutants in addition to identifying and addressing wastewater treatment system issues in your watershed. As well as an overview of Online Educational Modules on wastewater treatment plants, onsite wastewater treatment systems and fats, oils, and grease.

2:30 – 3:10 pm **Building Trust among Watershed Stakeholders ..... Vargas**
This session will summarize a case study that employed Narrative communication tools to gain stakeholder trust and obtain their support for incorporating triple bottom line analysis in the WPP process.

3:10 – 3:30 pm **Break**

3:30 – 4:30 pm **Decision Support Tools for Advancing Triple Bottom Line Analysis... Vargas**
This session will present decision methods empowering stakeholders to better evaluate economic, social, and environmental impacts and benefits (Triple Bottom Line Analysis) associated with WPP management strategies.

4:30 – 5:00 pm **Expectations for Elements F, G, and H..... Wagner**
The expectations for Element F, G, and H will be reviewed and discussed to provide the group with an understanding of the level of detail and effort needed to schedule implementation, describe interim milestones, and establish criteria to determine if load reductions are achieved.

6:45 pm **Dinner**

Thursday, September 27, 2012 **Facilitator: Nikki Dictson**

7:00 – 8:00 am **Breakfast**

8:00 – 9:30 am **Selecting BMPs: Economics and Finance Issues .....Panel**
A panel composed of Ed Rister (TAMU) and Ken Banks (City of Denton) will discuss the numerous BMPs which can be used to attain the site-specific objectives of watershed management. In addition, an overview of the economic

evaluations used to analyze BMP implementation in the Hickory Creek Watershed, Denton, Texas, will be provided.

9:30 – 10:00 am **Targeting Critical Areas and Scheduling Implementation.....Davenport**
To achieve the most effective and immediate benefit, BMP implementation must be targeted to the most critical areas. This session discusses the targeting of control measures and the importance of this effort to the ultimate success of the WPP. This session also discusses scheduling implementation efforts (Element F) as described in the final management strategy (Chapter 12.3 of the *Handbook*).

10:00 – 10:20 am **Break**

10:20 – 11:00 am **Developing Interim Milestones & Criteria to Measure Progress....Davenport**
This component of the WPP is where you define in realistic terms how you will determine (1) if you are on track and making progress or not, (2) how/when you evaluate your progress, and (3) what to do if watershed improvements are not on track. This session will discuss developing interim measurable milestones (Element G) and establishing a set of criteria to measure progress (Element H) toward meeting water quality goals as presented in Chapter 12.4-12.5 of the *Handbook.*

11:00 – 12:00 pm **Designing & Implementing Effectiveness Monitoring – Element I.....Hauck**
This session will provide guidance on developing Element I as described in Chapter 12.6 of the *Handbook*. Selecting an appropriate experimental design that incorporates previous and ongoing monitoring efforts will be discussed.

12:00 – 1:00 pm **Lunch**
**Meet at the Pavilion at 1 p.m. for hayride to river for next presentation. Please note: Participants will divide into 3 groups for the presentations below*

1:00 – 2:30 pm **Water Quality Monitoring: ..... Harmel/Banks/Tidwell**
Practical Guidelines & Lessons Learned
An overview of the how to use automated samplers and data sondes will be discussed. Practical guidance on installation and operation will be presented along with information on difficulties encountered and data uncertainty and how to communicate to stakeholders. In addition, an overview of the Texas Stream Team; stream side presentation will describe how trained citizen monitoring efforts are valuable components to any WPP or ambient monitoring program. Staff will demonstrate field collection data techniques and provide hands-on opportunities for interested participants.
****sessions are 30 minutes each***

2:30 – 2:50 pm **Break**

2:50 – 3:20 pm **Expectations for Element D .....Bira**
This session will discuss expectations for Element D which describes the financial and technical assistance needs and identifies the sources/authorities that will be relied on for implementation as described in Chapter 12.7 of the *Handbook* (Element D). Funding sources in Texas will be discussed along with match requirements and the mechanisms for requesting it.

3:20 – 4:05 pm **Implementing Watershed Protection and Management .....Banks Strategies in Hickory Creek**
This presentation will discuss implementing BMPs in Hickory Creek, Denton, Texas. The presentation will briefly discuss modeling and analyses conducted for the watershed and describe the process of working with modeling information, economic analyses, and a stakeholder group to target and implement demonstration management practices within the watershed. The presentation will also cover how the information learned during this process and additional analyses were used to implement best management practices in a large master planned development in the Hickory Creek Watershed.

4:05 – 4:30 pm **Sustaining Watershed Groups for Implementation Success ..... Wagner**
This demonstration will provide an overview of the Directory of Watershed Resources developed by the Environmental Finance Center (EFC) Network for helping implement watershed plans.

6:45 pm **Dinner**

Friday, September 28, 2012 **Facilitator: Kevin Wagner**

7:00 – 8:00 am **Breakfast**

8:15 – 8:45 am **Putting It All Together ..... Dictson**
This session will discuss assembling a WPP, gaining stakeholder approval, submitting the WPP for state and federal review, developing an evaluation framework and devising a method for tracking progress as described in Chapter 12.8-12.11 of the *Handbook*.

8:45 – 9:15 am **Implementing Your WPP – Arroyo Colorado Case Study .....Flores**
This session will focus on Arroyo Colorado watershed protection plan implementation efforts built upon the stakeholder efforts and partnerships developed during the WPP development process. Topics include implementation strategies, adaptive management, and approaches to addressing long-term sustainability of your WPP (i.e. grant writing, developing 501(c)(3), merging/collaborating with existing organizations and creating community level commitment).

9:15 – 10:30 am **Watershed Protection Plan Implementation in Oklahoma..... Phillips**
This session will focus on watershed protection plan development and implementation efforts in Oklahoma, their experiences, and lessons learned.

10:30 – 10:50 am **Break**

10:50 – 11:20 am **Perspectives on Watershed Group Organization..... Dictson**
As watershed protection efforts move beyond planning stages, tran
sition to implementation and maintaining public involvement raise some challenges with implications on long-term sustainability. This presentation will discuss approaches for sustaining your watershed group once your watershed plan has been developed.

11:20 – 11:30 am **Course Wrap-Up..... Wagner**
Review of Nine Key Elements & the EPA Review Guide.

11:30 – 12:00 pm **Knowledge Assessment/Course Evaluation**
A post-course examination will be distributed and the results compared to the pre-course exam in order to determine course impact and knowledge gained. A course evaluation will also be distributed to gain feedback on how to improve the course.

12:00 pm **Adjourn; Lunch**
Certificates will be distributed as the class turns in their post-course exam and course evaluations.

Appendix B: Watershed Planning Short Course - Roster

#	First Name	Last Name	Title	Company/County/Organization
1	Tyson	Broad	Adviser, Member	South Llano Watershed Alliance
2	Allen	Brown	Program Coordinator	Arkansas Natural Resources Commission
3	Jody	Cason		Texas Agrilife Research
4	Chris	Clary	Project Manager	Texas State University
5	Nick	Dornak	Watershed Coordinator	Guadalupe-Blanco River Authority
6	Meagan	Fendley		City of Arlington
7	Wesley	Gibson	Project Manager	TSSWCB
8	Kyle	Girten	Quality Assurance Specialist	TCEQ
9	Mari	Hrebik	Civil Engineer	USDA - NRCS
10	Chris	Lester	Soil Conservationist	USDA - NRCS
11	Ann	Mcgovern		South Carolina Department Health Environmental Control
12	Jeff	Murray		Houston-Galveston Area Council
13	Steve	Stake	Program Coordinator	Arkansas Natural Resources Commission
14	Travis	Tidwell	Volunteer Program Cooridinator	Texas Stream Team
15	Lauren	Oertel	Project Manager	TCEQ
16	Galen	Roberts		Texas A&M AgriLife Extension
17	Mary	Van Zant	Technology Project Specialist	Meadows Center for Water and the Environment

Appendix C: Watershed Planning Short Course – Pre and Post Evaluations

Appendix C: Watershed Planning Short Course – Pre and Post Evaluations

Level of Satisfaction	1	2	3	4	5	No Answer	Total	Average
Overall Course Rating				**2**	**13**	**3**	**18**	**4.9**
Nine Elements of a Watershed Protection Plan (Bira)		1	1	7	9		**18**	4.3
Perspectives on WPPs (EPA, TSSWCB,TCEQ)			4	8	6		**18**	4.1
Working with Stakeholders to Move The Process Forward (MacPherson)				2	16		**18**	4.9
Partnership Building Experiences in Plum Creek (Dictson)			1	5	12		**18**	4.6
Expectations for Element E (Dictson)		1	2	7	7	1	**18**	4.2
Using Outreach to Develop & Implement WPPs (MacPherson)				3	15		**18**	4.8
Texas Watershed Steward Program (Roberts)			3	5	9	1	**18**	4.4
Expectations for Element A (Fontenot)			4	7	7		**18**	4.2
Defining the Scope of the WPP (Wendt)				10	8		**18**	4.4
Gathering data to assess your watershed (Dictson)			1	7	10		**18**	4.5
Analyzing Data to Characterize Your Watershed (Davenport)			3	8	7		**18**	4.2
The Good, the Bad, and the Ugly (MacPherson)				2	16		**18**	4.9
Expectations for Element B (Wendt)			1	8	9		**18**	4.4
Overview of Models for Estimating Pollutant Loads & Reductions (Hauck)			3	9	6		**18**	4.2
Simple Tools for Estimating Loads and Load Reductions (Hauck)				8	10		**18**	4.6
Overview and Expectations for Element C (Fontenot)			2	6	10		**18**	4.4
TSSWCB Presentation (Wendt)			1	6	11		**18**	4.6
Agricultural NPS Measures (Wagner)				6	11	1	**18**	4.6
Urban NPS Measures (Davenport)			2	6	10		**18**	4.5
Wastewater Treatment Systems/Issues (Magin/Gerlich)				9	9		**18**	4.5
Building Trust among Watershed Stakeholders (Vargas)		1	3	7	7		**18**	4.1
Decision Support Tools for Advancin Triple Bottom Line Analysis (Vargas)			4	7	7		**18**	4.2
Expectations for Element F, G, and H (Wagner)			1	7	10		**18**	4.5
BMP Selection: Economics, and Finance Issues (Rister, Banks)				7	11		**18**	4.6
Targeting Critical Areas and Scheduling Implementation (Davenport)		1	1	6	10		**18**	4.4
Developing Interim Milestones & Criteria to Measure Progress (Davenport)	1		3	6	8		**18**	4.1
Designing & Implementing Effectiveness Monitoring - Element I (Hauck)			2	9	7		**18**	4.3
Water Quality Monitoring (Harmel, Banks, Tidwell)			1	1	16		**18**	4.8
Expectations for Element D (Bira)				7	11		**18**	4.6
Implementing Watershed Protection & Mgmt Strategies in Hickory Creek (Banks)			1	8	9		**18**	4.4
Sustaining Watershed Groups for Implementation Success (Wagner)			1	7	10		**18**	4.5
Putting It All Together (Dictson)			1	6	10	1	**18**	4.5

Appendix C: Watershed Planning Short Course – Pre and Post Evaluations

Level of Satisfaction	1	2	3	4	5	No Answer	Total	Average
Implementing Your WPP - Arroyo Colorado Case Study (Flores)				4	13	1	**18**	4.8
Watershed Protection Plan Implementation in Oklahoma (Phillips)			1	5	10	2	**18**	4.6
Perspectives on Waterhed Group Organization (Dictson)				6	10	2	**18**	4.6

3	**What could we have done better in order for you to have been completely satisfied?**
	Tom Davenport's presentations need to be distilled down - too much info, too fast, difficult to understand
	More interactive sessions
	More hands on activities vs. learning by osmosis. More specific information on contact info for data collection. Examples of QAPPs for data collection and data analysis. More basic "how to" information or handouts vs. inundation with case studies. More time for questions.
	Completely satified
	I would have like to see a presentation about Texas' plans with a comprehensive detail of all of the plans vs. case studies (cross-section analysis)
	Success stories aren't always what's helpful. There are a lot of problems faced, so it'd be nice if someone who faced a lot of challenges could talk about how they overcame those and still stayed on schedule
	I was completely satisfied
	Some presentations were hard to read - should be dark text/light background; Tom Davenport is hard to understand, got easier as week went on; Hauck is a very dry presenter and tough at end of day
4	None
6	No Answer

4	**Most significant things learned from the course**
	How the process works
	Since our WPP is implementation, the info on things like watershed stewardship program, stream team and producing publications (flyers, etc.)
	Tips for protecting our groundwater source
	Identifying resources (people, organizations)
	How to take our plan to the next level (specifically)
	Complexity of inputs for WPPs
	That plans out there DO balance protection and restoration
	How much work lies ahead for watershed planners
	The need for more funding
	Ways to use volunteer monitoring in WPPs; how complex WPPs can be
	Other people's issues and methods of the process
	The most significant thing I learned from the training was to consider a lot more planning for all aspects of the project process. Our program especially needs more planning for what to do when a project ends and how to make it sustainable.
	The EPAs 9 elements; watershed planning process
	Wastewater treatment systems and problems that result from poor maintenance; implementing LID strategies on Hickory Creek and LID in general
	Allow the WPP focuses on loads & BMPs rather than all the scattered focus I thought I would be dealing with
3	No Answer
5	**Topics to dicuss in greater detail**
	Need an overview of 319 and all acronyms at beginning. I may have been lowest common denominator and had to scramble to catch up.
	Using outreach to develop/implement WPP
	How to set up goals and milestones for a protective WPP
	Public relations/media; grant development; press releases/newsletters AP style
	Obtaining funding. Creating a monitoring plan/basics for each parameter.
	Bacteria
	Benefits of a watershed coordinator as a BMP
	SWAT model
	The "expectations" sections were not helpful. The slides never even said what Element H is - if it did, I swear I didn't sleep through it
	It would have been helpful for the presentations on watershed examples to focus around a theme of lessons learned that could be applied to your projects.
	Cost & funding
	More water quality monitoring
	Financial assistance: seeking it, making deals, moving money, getting it from idea phase to implementation and use of funds
5	No Answer

6	**Topic of interest but not covered by course**
	Healthy Watersheds Initiative
	Grant writing; website and Facebook page development/management (expanding our audience)
	Implementing watershed protection plans when your watershed is outside of your jurisdiction. Economic benefits of watershed protection.
	May be something more on components of uncertainty and presenting it to data users
	How TCEQ and TSSWCB conduct QA; How spreadsheets can be used for modeling or "non-technical" tools for cost-benefit; How to pick a consultant; How to read the reports (loading, etc.); How to effectively engage rural landowners and farmers with program.
	SWAT model - but I understand that is more technical than some or most watershed planners need.
	A quick discussion of interaction, roles, and protocal for government-contractor relationships would be helpful.
	Relationship between 6 steps & 9 elements - I am confused about how they interact
5	None
5	No Answer
7	**Topics to be omitted**
	None but perhaps some could be shortened/combined - Modeling and statistics are very intersting but maybe the sessions should be seen as an introduction to this rather than so much time devoted to explanation.
	Building trust among watershed stakeholders.
	Modeling "how to" vs. how to best select models and understand the output; Perhaps I am only suggesting less technical focus on the models
	Some topics could have been shortened or made more interactive, like for modeling and load estimating.
7	None
7	No Answer

8	**How satisfied were you with the quality of the course material? Are there additional resources that should be provided in the future?**
4	Very satisfied
	Very satisfied, very informative
	Having the PowerPoints is great, very satisfied with course materials
	Great materials - maybe put 4 slides per page rather than 2
	Very satisfied. Thank you for printing out the notes and providing contact info for participants. Contact info for key personnel in various regions of Texas (although that will be a headache).
	Very satisfied, maybe a small, separate binder of resources instead of a tab
	Voluminous - but well organized
	Very satified. Short videos that are available to support outreach and education
	Satisfied - enough material covered already
	Make more talks more interactive - like hands on monitoring demo
	Materials are great
	The handbooks provided will be useful. A handout with the websites referenced throughout the course that we easily refer to would be good too.
	Completely satisfied. It was good having the presentations to follow along with.
	Satisfied
	Very satisfied. I wish I had a template/example evaluation framework and copy of the watershed plan builder
9	**What is your level of satisfaction with the sequencing of topics?**
	Need an overview of 319 and acronymns at beginning
	Flowed very well
	Good flow of topics
	Great order of presentations
	I thought it was perfect.
3	Satisfactory
	Like the way you mixed things. Think of doing more interactive sessions at the end of the day. Modeling one at the end of one day was too much.
4	Very satisfied
	Like spacing/integrating education and outreach components
	Please don't put modeling at the end of the day
	The sequencing worked for me - especially when the more math-based topics were broken up. A little more interaction on topics other than Charlie's would have helped a little.
	It was well planned, broken up enough to provide continuity
1	No Answer

10	**What are the first 3 steps you'll implement as a result of taking this training?**
	1) Define process for stakeholders; 2) Create GIS capacity; 3) Updated website and newsletter capabilities
	1) Press city/county about providing cost share/remind them of our previous commitment to WPP; 2) Make another round to HOAs to engage them in WPP; 3) Update website to have more info available
	1) Organize the groundwater component ideas to get a consistent message/goal; 2) Identify possible funding sources; 3) Share what I've learned with the community
	1) Following up with other attendees; 2) Reevaluate monitoring/data analysis; 3) Continue to evaluate public participation
	1) Review existing plan and compare nine elements; 2) Review case studies of cost effectiveness of BMPs; 3) Contact a bunch of people met this week with requests for more info
	1) Emphasize characterization of watersheds; 2) Manage my OSSF at my own home better; 3) Help my WPP managers get more funding
	1) Keep in better touch with TSSWCB issues; 2) Try to do better at doing study design in a more statistically rigorous way; 3) Work on making QAPP process more flexible so adaptive management can be better accomodated.
	1) Share all the conceptual models we discussed for plans to emphasize protection vs. load reduction; 2) Work to position critical area definition for an area outside of our watershed (i.e. spring flow recharge areas); 3) Physically explore the 12-digit TWC's in Wilson County - interact personally with landscape
	1) Improve relationships with state and federal agencies; 2) Identify problems; 3) Research funding
	1) Watershed training for stakeholders; 2) Share materials with watershed plan writers and coworkers
	Everything in Plum Creek
	1) I will take Charlie's advice on stakeholder outreach materials to edit the language for a greater response rate; 2) I plan to further explore the SELECT tool for land use analysis; 3) I will also put more effort into planning for project follow-up and continuous progress monitoring to increase the sustainability of project efforts
	I'm not a watershed coordinator, but I want to work with WPP coordinators to 1) Build partnerships of volunteers for each WPP; 2) Identify the needs of the WPP and how the volunteers can contribute; 3) Get the volunteers participating in the WPP
	1) Seek participation of additional stakeholders not yet represented (Developers of Agriculture); 2) Set up resources to model for subwatershed loads; 3) Monitor last remaining tributary for baseline data
2	N/A
2	No Answer

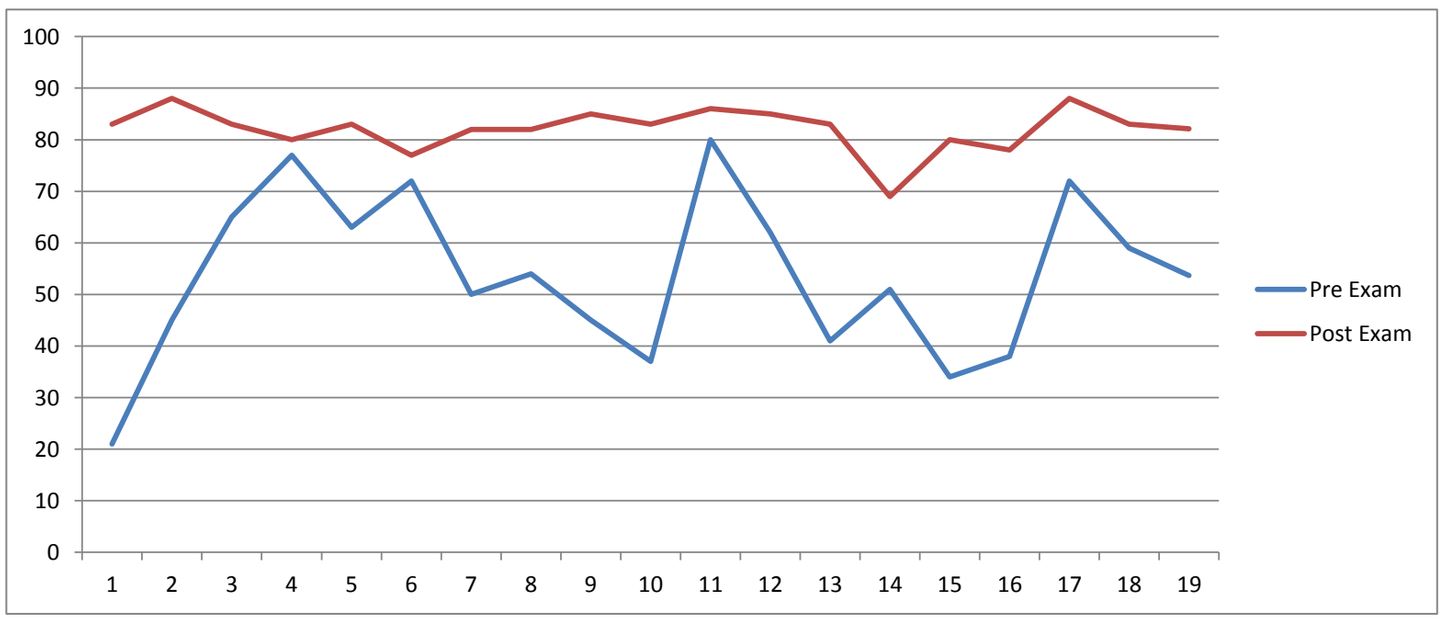
11	**What could the state and federal agencies do best to serve you in WPP efforts?**
	Training funding
	More funding
	Support with closer regulation of septic systems; There are too many legacy systems out there that are failing but go unnoticed
	Statewide marketing campaign
	Better outreach and contact. Better identification of who state/federal contacts are for each area. Incorporating watershed protection plan activities into MS4 permit renewals.
	I am at a state agency, I am not directly involved in WPPs
	Create media/reports for stakeholders to readily evaluate decision-making as conducted by other WPP steering committees (Pre/Post) logic models or meta-analysis on current WPPs
	Improve relationships with state and federal agencies
	Speed up QAPP process
	More reasonable timelines and response turnarounds would help projects move forward more quickly
	Provide feedback and recommendations based on other WPPs that could be applicable for the particular projects I work with
	This could be a whole college course! Lists or resources on technical and financial assistance
2	N/A
4	No Answer

12	**What other tools, training, capacity building would you suggest to serve your efforts in WPP planning?**
	GIS
	Internet marketing
	Making modeling more accessible whether through training or regional personnel
	Better showing of success stories and lessons learned
	More funding for outreach efforts
	Online planning modules based on this course
	More free beer
	Providing more training and/or access to the modeling programs by request would be helpful for those who need it
	I need a how to guide for: fundraising; outreach marketing; evaluation framework; modeling; stakeholder facilitation; agricultural resources available. We must be Jack of all Trades in this business
1	N/A
2	None
6	No Answer
13	**Satisfaction with location and facility?**
	Lacking WiFi in rooms was a drag
	High
2	Great location
	Love it
	Amazing - thanks!
6	Very satisfied
	Very happy, nice retreat
	Very satisfied. Only complaint - chairs are a bit uncomfortable and fix time on clock on wall
	Really appreciated the hospitality of the Mayan Dude Ranch - great getaway
	They Mayan Ranch is the perfect location for this training
	Excellent
1	No Answer
14	**How would you rate the WPP you are involved as of meeting the intent of EPA's guidelines?**
	Bit different as healthy watershed
	The Cypress Creek is on the way to addressing and meeting EPA guidelines and we are going to add a groundwater component to keep the creek flowing.
	Very high
	We have done a lot of work but are missing some aspects of the 9 elements and will need to amend our plan
	All 9 elements are met
	Good
	Becoming more involved
	It's way too slow because of multiple reasons. It'll get there- hopefully.
	Most of my projects align fairly closely with these guidelines, but could use more modeling and source analysis
	Has not started - but it WILL meet the guidelines' intent
4	N/A
4	No Answer

15	**In your watershed, what are the local strengths for success?**
	Existing watershed group
	People are passionate about water and recognize value Lake Granbury provides for local community
	Dedicated and motivated stakeholders
	Great foundation/Interlocal agreement
	Environmental groups do not exist, though none for watershed protection (yet); Fairly easy for stakeholders to meet; Watershed characterization completed recently
	Trust among the stakeholders, commitment to collaboration
	Collaborative partnerships, outreach efforts by Clearwater Water Conservation District, SWCD, Texas A&M AgriLife, TSSWCB & NRCS
	Cedar - residents' interests; Bastrop- county participation
	I am working in multiple watersheds, but using the BIG - HGAC, a strength is the stakeholder buy-in already present
	Broad knowledge of the watershed planning process
	Active stakeholders for stewardship, some elected officials' commitment to natural resource protection
4	N/A
3	No Answer
16	**In your watershed what are the local obstacles for success?**
	Perception by other stakeholders that WPP is solely part of watershed effort
	Lack of financial commitment from local government; WQ message getting lost in water quantity discussion
	Preserving Cypress Creek recharge and finding funding to do the studies needed to identify the recharge zone
	Public indifference
	Financial barriers; smaller cities without resources for "superfluous" programs; Watershed residents do not get drinking water from sources within watershed; Rapid development and development pressure.
	Capable guidance (i.e. turn-over in consulting service provider)
	I'm an NRCS water resource assessment engineer. Run SWAT models and do water quality assessments state and nationwide. Water conservation, increased population, feral hogs, increasing grain prices, more tillage (pasture to crop)
	Cedar- delays in the project; Bastrop- previous management of the project
	A major obstacle for this watershed is funding
	Landowners participation (stakeholders)
	Rapid development and growth, tourism (some non-stewards), some elected officials commitment to natural resource protection
3	N/A
3	No Answer
	Additional Comments
	Please get better chairs
	Overview of Models presentation had good info but was too long
	Note: adding a section ot the notebook supplied with space/blank paper to take notes would've been good. Presenter contact info on one page would've been good.
	Tom: rich in opinion, poor context for cases, too fast, too coarse, hard to follow

Appendix C: Watershed Planning Short Course – Pre and Post Evaluations

#	First Name	Last Name	Company/County/Organization	Pre Exam	Post Exam
1	Tyson	Broad	South Llano Watershed Alliance	21	83
2	Allen	Brown	Arkansas Natural Resources Commission	45	88
3	Jody	Cason	Texas A&M AgriLife Research	65	83
4	Chris	Clary	Texas State University	77	80
5	Nick	Dornak	Guadalupe-Blanco River Authority	63	83
6	Meagan	Fendley	City of Arlington	72	77
7	Wesley	Gibson	TSSWCB	50	82
8	Kyle	Girten	TCEQ	54	82
9	Matt	Heinemann	TSSWCB	45	85
10	Mari	Hrebik	USDA - NRCS	37	83
11	Chris	Lester	USDA - NRCS	80	86
12	Anne	McGovern	South Carolina Department Health Environmental Council	62	85
13	Jeff	Murray	Houston-Galveston Area Council	41	83
14	Lauren	Oertel	TCEQ	51	69
15	Galen	Roberts	Texas A&M AgriLife Extension	34	80
16	Steve	Stake	Arkansas Natural Resources Commission	38	78
17	Travis	Tidwell	Texas Stream Team	72	88
18	Mary	Van Zant	Meadows Center for Water and the Environment	59	83
			Average	**53.67**	**82.11**



PRE EXAM AVG = 54
POST EXAM AVG = 82

Appendix C: Watershed Planning Short Course – Pre and Post Evaluations

September 2012 Short Course

QUESTION (multiple choice only)	**ANSWER**	**Pre Exam**		**Post Exam**	
		# Missed	**Total Exams**	**# Missed**	**Total Exams**
Who is ultimately responsible for approving watershed plans?	Stakeholders	16	18	10	18
Load duration curves can estimate loading during time periods when there is no sampling by establishing relationships between:	Stream flow and pollutant concentration	9	18	5	18
Which is the more accurate method of estimating pollutant loads?	Calculation of load based on monitoring data	4	18	4	18
According to the EPA Handbook, what is the preferred method for evaluating BMP efficiency during watershed planning?	Model BMP effects	14	18	15	18
One of the most common reasons why water quality control measures fail is failure to:	Budget and fund maintenance costs	8	18	11	18
When developing management measures for watersheds with multiple pollutant sources, which of the following aids in determining BMP effectiveness?	Proximity to impaired segment	17	18	17	18
What factors need to be taken into account when developing an implementation schedule within your watershed protection plan?	All of the above	1	18	1	18
Critical milestones have to be achieved or the management approach must be modified to reach your desired goal.	True	1	18	1	18
The Element, “interim measurable milestones,” outlines how you will measure:	Progress in implementing the management measures	14	18	15	18
At a minimum, what must you measure to evaluate a load reduction?	Concentration and flow	10	18	8	18
Which of the following questions is most likely to require a model to answer?	Which combination of BMPs will most effectively meet load targets?	9	18	6	18

Appendix D: Introduction to Modeling Agenda

Introduction to Modeling Training

Blackland Research and Extension Center • Temple
January 23, 2013
Agenda

Wednesday, January 23 — *9 a.m. to 5 p.m.*

9:00 – 9:30 a.m. **Introductions, Overview & How Modeling fits into Watershed Planning** ....Kevin Wagner, 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 – 10:30 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 – 10:45 a.m. **Break**

10:45 – 11:45 p.m. **Models Overview: Purposes and Limitations** … ..... continued

11:45 – 12:30 p.m. **Lunch** *(catered lunch or bring your own)*

12:30 – 1:00 p.m. **Hiring a Contractor to conduct modeling** .....TBD
Working with contractors; request for bids including developing a scope, deliverables and timeframe. Procurement of contractors while following all of the federal laws and standards.

1:00 – 2:00 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 – 2:45 a.m. **Literature values vs. monitoring** .....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)** .....Kyle Girten, TCEQ
Kyle Girten will present 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** .....Kevin Wagner, TWRI

Appendix E: LDC/SELECT- Agenda and Sign In Sheet

Watershed modeling using LDC and SELECT
November 6-7, 2012

Texas A&M University • Horticulture/Forest Science Bldg. • Lab 125

Agenda

Tuesday, November 6 — *10 a.m. to 5:30 p.m.*

10–10:30 a.m.	**Introductions & Workshop Overview** [Kevin Wagner, TWRI]
10:30–11:15 a.m.	**Introduction to Load Duration Curves** [R. Karthikeyan & Kyna Borel, AgriLife Research]
11:15–12 p.m.	**LDC Demonstration** [R. Karthikeyan & Kyna Borel, AgriLife Research]
12–1:30 p.m.	Lunch *(bring your own or view list of nearby restaurants)*
1:30–2:30 p.m.	**Assignment:** Estimating Pollutant Loads for Plum Creek Using LDCs [Group]
2:30–3:30 p.m.	**Discuss LDC Assignment** [Group]
3:30–3:50 p.m.	Break
3:50–5:30 p.m.	**Introduction to SELECT** [R. Karthikeyan & Kyna Borel, AgriLife Research]

Wednesday, November 7 — **9 a.m. to 4:15 p.m.**

9–9:30 a.m.	**Gathering animal density data for SELECT** [Kevin Wagner, TWRI]
9:30–11 a.m.	**SELECT Demonstration** [R. Karthikeyan & Kyna Borel, AgriLife Research]
11–11:20 a.m.	Break
11:20–12 p.m.	**Assignment:** Estimating Pollutant Sources for Plum Creek Using SELECT [Group]
12–1:30 p.m.	Lunch *(bring your own or view list of nearby restaurants)*
1:30–3 p.m.	**Complete SELECT Assignment** [Group]
3–4 p.m.	**Discuss SELECT Assignment** [Group]
4–4:15 p.m.	**Wrap Up** [Kevin Wagner, TWRI]

Watershed Modeling Using LDC and SELECT

Sign In	#	First	Last	Agency/Organization	Email
	1	Todd	Adams	TIAER	adams@tiaer.tarleton.edu
	2	Ashley	Alexander	Texas State Soil and Water Conservation Board	aalexander@tsswcb.texas.gov
	18	Justin	Bower	Houston Galveston Area Council	justin.bower@h-gac.com
	3	Tim	Cawthon	Texas Commission on Environmental Quality	tim.cawthon@tceq.texas.gov
	4	Nikki	Dictson	Texas Water Resources Institute	n-dictson@ag.tamu.edu
	5	Rocky	Freund	Nueces River Authority	rfreund@nueces-ra.org
	6	Wesley	Gibson	Texas State Soil and Water Conservation Board	wgibson@tsswcb.texas.gov
	7	Stephanie	Glenn	Houston Advanced Research Center	sglenn@harc.edu
	8	Lucas	Gregory	Texas Water Resources Institute	lfgregory@ag.tamu.edu
	9	Binur	Guven	Houston Advanced Research Center	brobinson@harc.edu
	10	Maria	Hrebik	USDA - Natural Resources Conservation Service	mhrebik@brc.tamus.edu
	11	Chris	Lester	USDA - Natural Resources Conservation Service	clester@brc.tamus.edu
	12	Jana	Lloyd	Texas State Soil and Water Conservation Board	jlloyd@tsswcb.texas.gov
	13	Anne	McFarland	TIAER	mcfarla@tiaer.tarleton.edu
	19	Thushara	Ranatunga	Houston Galveston Area Council	Thushara.ranatunga@h-gac.com
	17	Sarah	Schwab	Stephen F. Austin State University	schwab.sarahe@gmail.com
	14	Jared	Timmons	Texas A&M AgriLife Extension Service	jbtimmons@ag.tamu.edu
	15	Zach	Vernon	Houston Advanced Research Center	zvernon@harc.edu
Instructor	16	Kevin	Wagner	Texas Water Resources Institute	klwagner@ag.tamu.edu
	20				

Appendix F: Fundamentals of Water Quality Monitoring – Evaluations

Please indicate your affiliation			
	Environmental Group		
4	Academia		
	Consultant		
	Utility		
18	Government	1	City/County
		0	Regional
		15	State
		2	Federal
	Other		

Why is this training important and what do you hope to gain?
Perspective on developing monitoring program for Travis county
Creating a WPP
I hope to gain a further knowledge of understanding how, when, where, etc. for monitoring
To strengthen review skills of QAPPs
It will assist with managing my projects and WPPs
I'm interested in further development in planning, monitoring
Need more help figuring out what type of monitoring we need to be doing and the best way to go about it
Just want to learn more about the nuts and bolts
Consistent shared understanding of monitoring strategies
To learn how to properly set up a monitoring plan that will accurately assess what is happening in a waterbody
Practical steps in field, statistics, DQOs
Different perspective on developing monitoring plans
To better prepare me for real situations; I hope to gain a deeper understanding of WQMPs on a deeper level
In the process of developing a proposal for intensive monitoring within a watershed with a WPP
The Clean Rivers Program performs baseline monitoring and provides the basis for later, targeted monitoring plans. This class will aide in those goals
This training is important to my continued education as a water professional. I hope to gain an understanding of how to develop a WQ monitoring plan since I have to review these as a project manager.
It is important to gain access to the trainings utilized by the regulatory agencies in order to standardize the monitoring process. I hope to learn the best practices in developing data quality objectives

To see how all of the pieces fit together in WQ from concept to data collection to analysis and use. I would like to learn about monitoring of BMPs after implementation to measure success
I work on bacteria modeling. Monitoring is inherent to this and it is an area I don't have a lot of experience in
To provide great understanding of the planning process and greater appreciation of the importance of planning for data uses prior to developing a sampling plan. I hope to gain an easier job in reviewing project work plans and QAPPs
I have just taken over as the prgm mgr for the Rio Grande Basin and I would like some pointers on how to continue our monitoring program and possibly make some changes
I manage projects including monitoring projects so I want to gain knowledge on monitoring aspects of the project and help contractors develop monitoring plan

What are your greatest challenges in developing a water quality monitoring plan?
Lack of resources/funding
Funding; getting out the idea that data matters
Assisting contractors in development of sample plan (and QAPP)
Cost, time, coordinating
Working with volunteers towards encouraging their community involvement
Details regarding stormwater samples; completing projects in a limited time frame
Quantifying uncertainty
The scale and how to organize data
Matching the funding, determining sampling regime
DQOs, statistics
I'm new
Balancing varied interests with water accessibility and limited funding
How many sites to have across a watershed
Developing a good plan "shell" that can be easily adapted to various areas
Getting enough sites on the ground - upstream/downstream/tributaries and how to plan locations
Learning correct and proper methods to attain monitoring goals
Inconsistency in design of projects that I review, mainly with respect to DQOs and associated sampling designs; Inappropriate use of a one-size-fits-all approach for different projects
We have an extremely large river basin, a large number of partners, and very scattered stations
Identifying; where to monitor; how much monitoring; how to develop proper sampling plan

What tools or methods do you currently use for monitoring plan development?
Public feedback
GIS; stakeholder knowledge gathering
TCEQ QAPP requirements/protocol
None- rely on contractors
DO filtrations; new CHEMETs test; transparency tube - secchi disc; pocket meters
Good guidance for determining appropriate sample site
TCEQ guidelines
Myself so far but now that I have taken this course I am confident at moving forward
I just review- but look for what, where, when, why
TCEQ coordinated monitoring schedule, TCEQ database
Never done one before (new)
Stakeholder input
Stakeholder and agency input, paired with historical monitoring and targeted monitoring for discovered issues
Existing plans, local expertise
We currently use a volunteer monitoring program that uses a TCEQ-approved monitoring plan
ISCO & NELAE , volunteer wq monitoring (TX Stream Team), CRP, for watershed protection planning
Non at the moment - as I work on modeling
Various - EPA guidance is most appropriate for my projects
The CRP uses all the TCEQ methods - QAPPs, watershed characterizations, etc.
Available state and federal guidelines and requirements
What are your greatest needs in regards to statistical/experimental design, statistical analysis and interpretation of results, Quality Assurance, other?
QA process is too long
Mainly QA; more knowledge here will enhance my skills with assisting contractors with QAPPs
Understanding statistical analysis of water quality data
Refining LCRAs water quality index/formula for analysis
Would love some good reference documents for experimental design
Ease of accessing data to present to stakeholders; working through the QA process
Statistical/experimental design; statistical analysis
Statistical analysis - always difficult if you don't use all the time; and know what to use to analyze data

A better understanding of all
Examples of statistical analyses of water quality data and how to use those stats
How to detail information for QAPP purposes; developing DQOs
My greatest need is to learn methods to interpret data with large time gaps as well as some incomplete fields
Hopefully I will know how to answer this after this training
QA
Need to address the misconception that "more data is better" and that it's acceptable to gather data, than figure out what to do with it later
I would like ideas on how to better compile large amounts of data. I'd like to go home with ideas as to better data management analysis and changes we could make to our monitoring program
I don't have any experience in statistics so anything on that aspect will help
Starting from the beginning of our sampling plan and WPP. Everything that this class brought is going to be a great tool so I can build a much better plan
(2) -- Unsure

Did this workshop meet your expectations?	
	1 (Fell short of expecations
	2
1	3
13	4
7	5 (Exceeded expectations)

What were the most valuable aspects of this workshop?
The hands-on outside tasks; discussion on QAPPs; location and size of workshop
Review of DQIs; resources; reasons to collect data; site selection recommendations; creating a monitoring plan exercise
All; monitoring demonstrations
Monitoring methodology/demonstrations
The case study was valuable, but had a lot more potential for correlation and applicability. The uncertainty and watershed characterization presentations were very useful and educational. The workshop, while long, was helpful - perhaps reduce prep time and increase discussion time to consider effects of different plans
I liked that people from all types of agencies and backgrounds came. It was great for networking. I also liked the variety of presentations.
Discussions prompted by presentations; real-life examplese of Carters/Burton Creek
Developing a monitoring plan
Case study, statistical analysis, workshop portion
I like how the speakers are in the audience, not separated out. It makes them feel like peers and approachable. The more I learn about this, the less I know. But this was a good start. I have my work cut out for me. Huge need to see how all of these pieces fit together. Without it, we could never take it to the next level as Daren is challenging us to
Case study
Watershed-based monitoring discussion
Obtained a big picture of monitoring plan development
Excellent overviews of major components of monitoring plan
Professionals with actual field experience presenting monitoring techniques, etc. Also, other professionals presenting info on QAPPs, stats, etc. Group activity was very helpful
The group exercise was very valuable. However, I believe that more time was needed as perhaps a much simpler set of parameters and data
Provided good overall overview of monitoring
Monitoring exercise; uncertainty presentation; statistical analysis; monitoring demonstration
Aspects to consider when developing a WQ monitoring plan, QAPPs

Hands on monitoring - I know time was a factor but would have been really nice to see the sampling at a site, not just a demo set up. Lots of knowledgable presenters and some very useful impromptu discussions
The case study was a good aspect to the workshop but maybe should have tied to the group workshop. The QAPP was a good presentation to give a quick run down
What were the least valuable aspects of this workshop?
Statistical tool analysis talk was a little long and technical; no papa johns!
Some presentations glossed over a more detail-oriented process - maybe a successive workshop could delve into the specifics more. Hard to do unless you know your audience, I'm sure
DQOs - we should restructure this presentation
Conceptual, typical lists of considerations in an activity/practice vs. specific recommendations, applications and examples
QAPP presentations were very good, but available in other forums. I think the addition of how 303d listing occurs, what it means would have been an asset - especially with focus on sampling only reveals WQ issues, does not couse them, in addition, continued sampling does not cause delisting, it only provides the info to allow delisting
Everything was fine
All aspects were valuable! But if I have to choose … perhaps too much dtail on the use of statistical tools for many in this audience. Would not remove this information from the workshop, but perhaps combine stats with sampling design presentation, particularly since design info is repeated here. This would allow for questions and emphasis if next audience is more interested.
Stakeholder communications - mainly review, not new material
No contact sheet of participants
DQOs and uncertainty
Need more detailed practice on data collection and analysis
As much as I love statistics (no sarcasm) it is difficult to learn their value without any hands-on exercise
Focus more on bacteria
Statistical Tools for Analysis because I will never have to use this
Would have liked the talk to just be a little more advanced - felt some of the info was very basic, just a little more I think would have been good without being overwhelming
This really depends on who your audience is - since some here are basically for knowledge to help partners or depending on if they are here because they are doing the work

Data Quality Objectives and Project Planning (Carter)	Excellent	Good	Average	Poor
	4	9	5	1

Comments:	In depth info - quite quickly - a bit hard to take it all in but a good overview for course context.
Move to end of course	
Great presentation - case study could have been moved and really focused on how DQOs shaped eventual goals of the project	
Covered a lot of information very quickly - might have been good if he had 10 more minutes to talk	

Too fast; could go more in depth				
How to set DQOs was still a little confusing				
It's an area we don't do well or understand well, so we need to explore it more as a part of planning for the next training				
I think I would have moved this further into the workshop after an overview, though I know the intent was to begin with the end in mind - after several presentations, it does make sense				
Inventorying and Acquiring Existing Resources (Wise)	Excellent	Good	Average	Poor
	11	9		
Comments: Fantastic presentation				
Funny and thought provoking. The "Create Data Inventory" slide is awesome.				
Could maybe be combined with quality documentation since acquiring data does require documentation				
Would have like a few more specific examples				
Great!				
Lively, to the point, short				
Watershed Characterization and Sufficient Data (McFarland)	Excellent	Good	Average	Poor
	11	9	1	
Comments: Really good presentation				
Some overlap with Hauck's monitoring design presentation, but good info. I anticipated this talk would focus more on how to collect data in order to characterize potential pollutant sources (follow up on and similar to Wise's talk) - suggest re-working content of this talk				
Could be used to analyze existing or to plan for future data. Not so much about water characterization but examples of advantages and				
Great examples of different sampling plans and their pros/cons. I expected much more of this type presentation				
Good review of types of study design				
Selecting Monitoring Design (Hauck)	Excellent	Good	Average	Poor
	9	8	4	
Comments: Needs more examples				
Also an excellent presentation				
I feel this presentation should be shorter or split into two different presentations				
Hauck uses real world examples well and is open to feedback from audience for clarifications				
Too focused on small details - such as uses of particular parameters, more focus on why a sampling technique/parameter, etc. would be selected				
Introduction to Stormwater Sampling (Harmel)	Excellent	Good	Average	Poor
	13	7	1	
Comments: Liked that he answered all questions and allowed discussion				
How to save money and reduce uncertainty as little as possible is very useful				
Great explanation of the possibilities of this sampling technique, excelletn next-day follow up with auto sampling				
Other Considerations & Review Building a Successful Monitoring Plan (Hauck)	Excellent	Good	Average	Poor
	7	12	2	

Comments:	Excellent presentation
This presentation should flow into the workshop	
Helpful detail about planning components	
For afternoon presentation near the end, presentation was a little too long and redundant	

Quality Assurance Project Plans (Girten)	Excellent	Good	Average	Poor
	12	8	1	

Comments:	Very informative
This presentation was very good; learned more in this 30 minute presentation than I did in QA training	
Thanks for the resources	
Great overview, but is available other places	
Good overview	

Monitoring Demonstrations (Group)	Excellent	Good	Average	Poor
	13	7	1	

Comments:	More group activities - gives a direct (hands-on) approach to learning
Have demonstrations occur in a water body	
Could have been longer for routine monitoring and not as long for the stormwater portion. We didn't get to finish at the routine monitoring station	
Auto sampler was useful and interesting. Field sampling demonstration was a bit repetitive from other classes. This forum doesn't really allow for the indepth needs of providing lots of information to create good, consistent examples	
Stormwater equipment a little out of my league, but flow measurements and routine monitoring irrelevant for me	
Good timing in agenda. Just right on time alotted.	
Seeing the variety of tools is good	

Statistical Tools for Analysis (McFarland)	Excellent	Good	Average	Poor
	6	13	2	

Comments:	A lot of info
A little more in-depth explanation of the basic tests to run and what to look for	
I am on a remedial statistics track; intro to terms would help	
Good overview, but data examples would be good - assumes some background in the subject	
Good level of technical detail for audience, in general, although may be more useful for more technical staff	
Went over my head. I need to take a statistics class. The watershed image is distracting as it looks like a woman's body - please tell her.	

Uncertainty in Monitoring (Harmel)	Excellent	Good	Average	Poor
	11	7	2	

Comments:	Perhaps tailor presentations to audience a little more? Maybe not?
Amazing work - he's really setting the bar	
Excellent overview and interesting, fact-based presentation	

Stakeholder Communications (Hauck)	Excellent	Good	Average	Poor

	3	13	2	
Comments:	Review, not really new info, however important to those new to the program			
Problems examples (lessons learned) success stories explained was helpful				
Great wrap up				
Coming from the volunteer monitoring perspective, the element is very important as a way of creating citizen buy in and involvement				
Additional Comments				
Case study great! Work group activity great!				
Case study on Day 1 - really liked this aspect of the workshop. It helped to pull all of the topics together - KEEP THIS for future workshops				
Something that might be good is if y'all had break out sessions and pair up people of the same agency role to use this workshop/training as a tool to learn how it affects a certain group of what your responsibility is on that topic				
Case study was excellent - it worked well to intersperse these throughout the day				

Appendix G: LDC/SELECT Training – Evaluations

Please indicate your affiliation			
	Environmental Group		
3	Academia		
	Consultant		
	Utility		
	Government		City/County
		2	Regional
		6	State
		2	Federal
1	Other Non Profit		

Why is this training important and what do you hope to gain?
New technology to me; interested in mastering it, I provide OK support for hydrologists
Because I use SELECT & LDCs on numerous projects, I hope to gain a better understanding of the model framev
Using both LDCs & SELECT on a project for TSSWCB, so hoping I can figure out how to use them properly
Expanding staff capacity, for modeling services
To learn LDC & SELECT to apply in modeling for WPPs
Gain overall knowledge & be exposed to a tool that will model bacteria
Hope to gain knowledge to improve modeling effort of bacteria
Understanding LDC more & how the SELECT model works to hope to add the data to a SWAT model for e.coli
To widen my knowledge of modeling to interpret graphs
SELECT & LDCs are key components of WPPs. Gain in depth knowledge of how these models/calculations wor
Learn more about watershed modeling
General understanding of LDCs & SELECT
If I can use this for my WPP work
Have used and will use LDC's and SELECT on projects and would like to have a better understanding of models

What are your greatest challenges in estimating the current loads, needed load reductions and targeting critical areas for implementation?
Lack of Data
Detailed land use information, lack of flow data
Accounting for issues that the LDC/SELECT models don't handle well (skewed sampling times, efficient domina
Making side specific models on loading
Point source bacterial tracking 12 digit HUC modeling
Gathering necessary data; inputs--result in necessary outcomes, how to distribute critical areas
Understanding LDCs and exploring to stakeholders/contractors
Learning what to do
Lack of Data, flow, WQ, up to date landuse

What tools or methods do you currently use for estimating the current loads, needed load reductions and targeting critical areas for implementation and evaluating load reductions resulting from BMP
LDCs/SELECT, BST, raw data
Depends on the project & watershed area, everything from dinest measurement w/intensive data collection to use
SELECT/SWAT/LDC/ Tidal Prism
SELECT/SWAT
SWAT
SWAT/APEX
Using mass loading & mapping compound with the slope & geology of the watershed, BST
TMDL, SWAT
SELECT & LDCs
rely on contractors
Have not done this yet
LDCs and SELECT

What are your greatest needs in regards to estimating the current loads, needed load reductions, targeting critical areas for implementation, evaluating load reductions resulting from BMP implementatoin and other needs?
Better data on fecal production rates, animal densities and consistent flow record
Estimating flow where data are nonexistant on limited, particularly in areas w/ groundwater aquifer interactions
Staff expertise, truly representative data
Combine SELECT & SWAT, SELECT as impact to SWAT
Streamgauge data for bacteria modeling
A deeper knowledge of the tools backgrounds
Overcoming the limitations of data scarcity and the models overall

Everything--starting from scratch
Better data in several areas, flow data, water quality data, fecal production rates, species data, etc.

Did this workshop meet your expectations?	
0	1 (Fell short of expecations
0	2
2	3
9	4
5	5 (Exceeded expectations)

What were the most valuable aspects of this workshop?
Working through examples
LDCs and Basins software
LDC course was helpful, learning about SELECT
Helpfullness of staff and ability to determine ?Landrys? Was interesting, getting research was nice as well
Being able to get on the computer & have the files in fron of us to run & manipulate, the manual will be a good resource to have
LDC curve
Hands on experience, lunch break, great instructors
Help with the model & where to find data, background data of the model, great examples of running data
All very good, but LDCs will probably be more helpful to me, personally. Hope to be able to use SELECT & BASINS
The hands-on applications of LDCs and SELECT. The discussion of data sources was also very useful.

What were the least valuable aspects of this workshop?
Might let folks know ahead of time use of LOADEST for LDCs
Some of the screenshots in the manual are too small to read--go to 1 shot per page
None, handbook was not in order, had to jump around through the sections
Show more basics, some concepts may be to complicated if you have no background in GIS, need to provide class materials in electronic format

BASINS
Too much BASINS, too much basic GIS
Provide a disk with materials & programs
I had no previous experience, so it was very fast paced for me
Had to follow a quick pace sometimes
Spending time on BASINS & ArcMap on Thursday morning
With this being the first delivery of the training, there is quite a bit of polishing tha tis yet to be done. Also it would have been good to stick to the A

Introductions and Workshop Overview (Wagner)	Excellent	Good	Average	Poor
	4	11	1	

Comments:

Introduction to Load Duraction Curves (R. Karthikeyan and Borel)	Excellent	Good	Average	Poor
	8	8		

Comments:

good discussion on general utility of LDCs

LDC Demonstration (R. Karthikeyan and Borel)	Excellent	Good	Average	Poor
	6	10		

Comments: Just go a little slower when going through steps

Good material, but delivery needs to be refined. Materials in the maunual could be enhanced a bit. Several hiccups along the way seemed problematic for some students.

Assignment: Estimating Pollutant Loads for Plum Creek using LDCs	Excellent	Good	Average	Poor
	7	9		
Comments: Good detail on being able to work through real data that isn't always going to work				

Introduction to SELECT (R. Karthikeyan and Borel)	Excellent	Good	Average	Poor
	6	7	2	
Comments: Good intro on the model				
good discussion, but it didn't follow the manual slides. Starting with the slides is advisable as it allows students to "see the discussion"				

Gathering Animal DensityData for SELECT (Wagner)	Excellent	Good	Average	Poor
	9	5	2	
Comments:				

SELECT Demonstration (R. Karthikeyan and Borel)	Excellent	Good	Average	Poor
	5	3	6	
Comments: Even though BASINS did not work properly				
Too much focus on BASINS				
Definitely some kinks to work out here. Data wouldn't load, wrong versionof ArcView, etc. These should be worked ahead of time.				

Assignment: Estimating Pollutant Sources for Plum Creek Using SELECT	Excellent	Good	Average	Poor
	5	5	4	
Comments: Good to show a not perfect example, everything doesn't always go smoothly, which is better to see than something that does				
did not participate in this section				

Wrap Up (Wagner)	Excellent	Good	Average	Poor
	8	1	1	
Comments: did not participate in this section				

Additional Comments
Collectivey, I think this trainng was quite useful and just needs to be refined.

Appendix H: January 22, 2013 Watershed Coordinators Roundtable –Agenda

Texas Watershed Coordinator Roundtable
"Catalyzing Success"

Tuesday, January 22, 2012
9:30 a.m. — 3:30 p.m.

Texas A&M AgriLife Blackland Research and Extension Center • TEDC Conf. Room
800 East Blackland Road, Temple, TX 76502

9:30 – 9:45 a.m.	Welcome & Introductions [Kevin Wagner, Texas Water Resources Institute]
9:45 – 10:00 a.m.	Perspectives on Defining Success [Tina Hendon, EPA]
10:00 – 10:40 a.m.	Roundtable Discussion on Achieving Success in Your Watershed
10:40 – 11:00 a.m.	Networking Break
11:00 – 12:00 p.m.	The Role of Social Media in Conservation Science [Amy Hays, Texas A&M Institute of Renewable Natural Resources]
12:00 – 12:40 p.m.	Catered working lunch (or bring your own) [RSVP required]
12:40 – 1:40 p.m.	*WATERSHED: Exploring a New Water Ethic for the New West*
1:40 – 2:00 p.m.	Networking Break
2:00 – 3:00 p.m.	Roundtable Discussion on Achieving Success in Your Watershed, continued
3:00 – 3:15 p.m.	Update on Recreational Use Attainability Analyses [Joe Martin, Texas Commission on Environmental Quality]
3:15 – 3:30 p.m.	Wrap-Up [Nikki Dictson, Texas Water Resources Institute] • Upcoming Trainings: - Texas Watershed Steward - Texas Stream Team - Texas Well Owner Network - Fundamentals of Developing a Water Quality Monitoring Plan - Watershed Modeling Using LDC and SELECT - Introduction to Modeling • Next Roundtable - Date: July 2013 - Possible Topics: Urban NPS; Collection & use of water quality data