

**Texas A&M AgriLife
Texas Water Resources Institute**

**Texas Watershed Planning Short Course Project
EPA Clean Water Act §319(h) Grant
TCEQ Agreement No. 582-7-77049**

Quarter no. 6 From 6/1/08 Through 8/31/08

I. Abstract

This quarter, activities focused on delivering the first Texas Watershed Planning Short Course and initiating preparations for future offerings. Forty-three water professionals participated in the first Short Course. On a scale of 1-5, the course received a rating of 4.0. As indicated by the pre- and post- course exam, a 33.5% increase in knowledge was documented. Input gained from the surveys received from course participants is being used to guide modification of the course agenda for future offerings. The agenda for the next course will be finalized next quarter. The second Short Course has been scheduled for January 12-16, 2009 and the third Short Course has been scheduled for August 17-21, 2009. Registration for the second course was opened on June 9, 2008. To date, a total of seven individuals have registered for the course. Emails, publications, and the Web site are being used to advertise the course. The Watershed Planning Short Course Webpage (<http://watershedplanning.tamu.edu/>) has been visited by a total of 1,118 visitors since it became accessible online. It will continue to be updated as new material is developed for the course. Next quarter, the short course program and materials will be adjusted as needed according to the results of the participant survey and recommendations of the planning team and arrangements will be made for all speakers.

II. Overall Progress and Results by Objective and Task

OBJECTIVE 1: PROJECT COORDINATION AND ADMINISTRATION

Task 1.1: Team Organization – TWRI will assemble a team made up of university, TCEQ, TSSWCB, EPA, TCE and Texas River Systems Institute personnel, along with EPA trained Watershed Coordinators, to guide the development and delivery of the Texas Watershed Planning Short Course to water professionals throughout Texas. This team will meet quarterly to discuss project status, provide input, and coordinate project activities. Quarterly meetings will consist of face-to-face meetings, teleconferences, and TTVN meetings as appropriate.

The following actions have been completed during this reporting period:

- a. On July 14, the TWRI Project Manager met with Extension and the TWRI Program Coordinator to discuss the Second Short Course and prepare for the Planning Team Meeting scheduled for the following day.

- b. On July 15, a Planning Team Meeting was held in College Station to obtain input on revisions needed to be made to the Short Course in preparation for the Second Course.
- c. On August 4, the TWRI Project Manager met with Extension and the TWRI Program Coordinator to continue work on the Second Short Course agenda.
- d. On August 11, a Planning Team Meeting was held via conference to discuss changes to and finalize the Short Course agenda

60% Complete

Task 1.2: Project Coordination – TWRI will coordinate the project with other ongoing watershed efforts including, but not limited to the Southern Region Water Quality Coordination Project, TSSWCB Wharton Regional Office Watershed Coordination Project, TCE Watershed Stewardship Program, and TCEQ TMDL Program.

The following actions have been completed during this reporting period:

- a. Texas AgriLife Extension Service (Extension), formerly TCE, is a member of the planning team and has been subcontracted to assist with the Short Course, ensuring coordination with the Watershed Stewardship Program and Southern Region Water Quality Coordination Project.
- b. TSSWCB is a member of the planning committee and has participated in all planning team meetings. Extension and TWRI regularly participate in the TSSWCB Wharton Regional Office Watershed Coordination Project, further ensuring coordination.
- c. TCEQ TMDL Program personnel are members of the planning team and participate in planning meetings when possible.

60% Complete

Task 1.3: Quarterly Progress Reports – TWRI will prepare electronic quarterly progress reports (QPRs) for submission to the TCEQ, TSSWCB, EPA, and all members of the team. QPRs will be submitted 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 (1) Status of deliverables for each objective and (2) Narrative description in Progress Report format.

The following actions have been completed during this reporting period:

- a. TWRI submitted Year 2, Quarter 1 Progress Report on June 15, 2008.

60% Complete

Task 1.4: Project Oversight – TWRI Project Manager will provide technical and fiscal oversight to ensure Tasks and Deliverables are acceptable and completed as scheduled and within budget. With TCEQ Project Lead authorization, TWRI may secure the services of contractors as necessary. Project oversight status will be provided with the Quarterly Progress Status Reports. In addition, TWRI will attend meetings with project manager and other meetings, as needed, to review project status, deliverables, etc.

The following actions have been completed during this reporting period:

- a. Subcontracts were initiated with the Texas Institute for Applied Environmental Research (TIAER) at Tarleton State and the River Systems Institute (RSI) at Texas State to secure assistance with development and delivery of the Short Course. As of 7/31/08, the following expenditures had been reported:
 - TIAER = \$0 spent through 7/31/08
 - RSI = \$0 spent through 7/31/08
- b. The progress report for RSI activities from December 2007 – June 2008 is included in Appendix A.
- c. Subaccounts were initiated with Texas AgriLife Research (Biological and Agricultural Engineering Department) and Texas AgriLife Extension Service (Soil and Crop Sciences Department) to secure assistance with development and delivery of the Short Course. As of 7/31/08, the following expenditures had been reported:
 - Texas AgriLife Research = \$10,667
 - Texas AgriLife Extension Service = \$696

60% Complete

Task 1.5: Reimbursement Forms – TWRI will submit appropriate Reimbursement Forms (2 copies), purchase vouchers (269a, and 269a 1-4) and Small and/or Minority Owned Business Report (where applicable) by the last day of the month following each state fiscal quarter.

The following actions have been completed during this reporting period:

- a. The total federal funds expended as of the end of May 2008 were \$65,935.15 (31% of total federal funds available). The next invoice, covering expenses from June 2008 through August 2008 will be submitted in September 2008.

35% Complete

Task 1.6: Contractor Evaluation – TWRI will participate in Contractor Evaluation.

The following actions have been completed during this reporting period:

- a. The Contractor Performance Evaluation Report for year 2 was submitted to TCEQ on August 7, 2008 covering the period of 9/1/07 – 8/31/08.

66% Complete

OBJECTIVE 2: DEVELOP TRAINING MATERIALS AND EDUCATIONAL PROGRAM FOR WATERSHED PLANNING SHORT COURSE

Task 2.1: Compile and Summarize Existing Programs – TWRI will collect and compile information about existing training programs.

The following actions have been completed during this reporting period:

- a. Information on existing programs was compiled and discussed with the planning team during the first and second quarters. No further work is planned.

100% Complete

Task 2.2: Develop Training Program – As directed by the TCEQ and Project Team, TWRI will modify existing training programs, such as the EPA Watershed Training Materials and those found as a result of subtask 2.1, to fit the needs of Texas professionals.

The following actions have been completed during this reporting period:

- a. Work has been initiated to revise the June 2-6, 2008 Short Course agenda for the Second Short Course scheduled for January 12-16, 2009 (Appendix B).

90% Complete

Task 2.3: Watershed Training Webpage – TWRI will develop (Months 1-3), host, and maintain (Months 3-36) an Internet Web site for information sharing and use by short course participants.

The following actions have been completed during this reporting period:

- a. TWRI developed the Website (<http://watershedplanning.tamu.edu/>) in May 2007 for information sharing and use by short course participants.
- b. The website was viewed by 117 unique visitors in June 2008.
- c. The website was viewed by 108 unique visitors in July 2008.
- d. The website was viewed by 199 unique visitors in August 2008.
- e. So far in 2008, the website has been viewed by a total of 938 unique visitors. Including the 180 unique visitors in 2007, a grand total of 1,118 unique visitors have viewed the website.

60% Complete

OBJECTIVE 3: CONDUCT WATERSHED PLANNING SHORT COURSE AND OTHER WATERSHED TRAINING

Task 3.1: Organize Short Course Events – TWRI will identify key speakers for training, make all arrangements for facilities, advertise the short course, conduct registration, and make all travel arrangements for speakers. Travel for speakers will be fully paid for through project funds.

The following actions have been completed during this reporting period:

- a. The second *Watershed Planning Short Course* is set for January 12-16, 2009.
- b. The third *Watershed Planning Short Course* is set for August 17-21, 2009
- c. TWRI has reserved the Mayan Ranch for the second and third course.
- d. Seventeen speakers have been identified to assist with the second Short Course.
- e. Registration for the second Short Course was opened on June 9, 2008.
- f. To date, seven individuals have registered for the January 2009 Course.
- g. Registration reminders were sent out on July 9 and August 12.

- h. TWRI has sent and will continually send monthly e-mail updates regarding training courses (including the *Watershed Planning Short Course*) to a contact list of state agencies, river authorities, and academia.
- i. Next quarter, TWRI will mail out Water Resources Training Courses postcards that highlight upcoming training courses hosted by TWRI (including the *Watershed Planning Short Course*) to 7,200 engineering firms nationwide.

40% Complete

Task 3.2: Deliver Short Course – TWRI will facilitate the delivery of the Texas Watershed Planning Short Course to 120 water professionals in Texas and the surrounding region, providing certifications to participants. A \$350 registration fee will be charged to short course participants. As funding and need allow, additional offerings of the course will be considered.

The following actions have been completed during this reporting period:

- a. The first short course was held June 2-6, 2008. Forty-three water professionals participated. The participant list is included in Appendix C.

36% Complete

Task 3.3: Organize Applied Fluvial Geomorphology Short Course Event – TWRI will coordinate with Wildland Hydrology to provide Applied Fluvial Geomorphology Short Course to 40 water professionals in Texas. A registration fee of \$500 will be charged to short course participants.

The following actions have been completed during this reporting period:

- a. Forty-four participants from TPWD, TCEQ, TXDOT, TFS, Extension, and TWRI participated in the *AFG Short Course* held on January 28-February 1, 2008.

100% Complete

Task 3.4: Develop and Administer Questionnaire – TWRI will oversee the development of a questionnaire to gauge the knowledge gained by the course participants. This questionnaire will be administered at the beginning and end of each short course to demonstrate the course's effectiveness and identify areas of the course needing adjustment.

The following actions have been completed during this reporting period:

- a. Forty-two evaluations were submitted by participants providing input on the course (Appendix D). On a scale of 1-5, ratings for presentations ranged from 3.6 – 4.7. Overall, the presentations averaged a 4.0 rating.
- b. The pre- / post-course exam turned out to be very difficult for the course participants. The average on the pre-course exam was 48 and the average on the post-course exam was 64. The exam is being re-evaluated in preparation for the Second Course. However, despite the difficulty of the exam, it did demonstrate an overall improvement in knowledge. Considering the experience level of the first group of participants, the 33.5% increase in knowledge is satisfactory.

33% Complete

OBJECTIVE 4: SUBMIT FINAL REPORT

Task 4.1: Draft Report

The following actions have been completed during this reporting period:

- a. No activity.

0% Complete

Task 4.2: Final Report

The following actions have been completed during this reporting period:

- a. No activity.

0% Complete

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

- N/A

IV. Projected Work for Next Quarter

- Prepare and submit Year 2, Quarter 2 Progress Report
- Conduct Planning Team Meeting
- Make needed adjustments to Short Course agenda & materials
- Update Webpage as materials are developed
- Make arrangements for second short course

Appendix A
TEXAS WATERSHED PLANNING SHORT COURSE
RIVER SYSTEMS INSTITUTE SUBAWARD

Progress Report: December 2007- June 2008

OBJECTIVE 1: ASSIST DEVELOPMENT OF TRAINING MATERIALS AND EDUCATIONAL PROGRAM FOR WATERSHED PLANNING SHORT COURSE

Goal: To develop training materials for watershed planning short course program

Task 1.1 **Attend Quarterly Steering Committee Meetings** – The Texas River Systems Institute will participate in Quarterly Steering Committee Meetings to provide input on training materials and educational program for the Watershed Planning Short Course.

Activity this reporting period:

RSI staff was on vacation and was not able to attend the August steering committee meeting. Upon return from vacation, RSI staff contacted the TWRI project manager and requested updated information from the steering committee meeting. The project manager summarized changes to the January workshop agenda that included modifications to the Stream Team presentation, designation of RSI staff to facilitate the Short Course agenda on the Thursday segment, reallocation of Dr. Walter Rast's time from Short Course presenter to reviewing and commenting on the Short Course exam.

Task 1.2 **Develop Training Program** – The Texas River Systems Institute will assist TWRI with planning of the Short Course curriculum through review of draft curriculum and providing comments and recommendations on changes needed to improve it.

Activity this reporting period:

RSI staff will review the revised agenda for the January 2009 course and review the course exam to improve the overall course evaluation.

OBJECTIVE 2: ASSIST WITH CONDUCTING WATERSHED PLANNING SHORT COURSE

Goal: To provide watershed education to 120 water professionals in Texas and surrounding area

Task 2.1 **Organize Short Course Events** – The Texas River Systems Institute will assist TWRI with identifying key speakers for training on a minimum of five and no more than 10 topics to be covered by the Short Course. The River Systems Institute will also help advertise the short course and make travel arrangements for speakers from Texas State University.

Activity this reporting period:

RSI staff processed reimbursement of travel expenses for Jeff Thornton and documented as in-kind match, the time Walter Rast spent on the short course.

Task 2.2 Deliver Short Course – The Texas River Systems Institute, in coordination with Texas State University faculty, will assist TWRI with the delivery of the Texas Watershed Planning Short Course to 120 water professionals in Texas and the surrounding region by presenting on 5-10 topics during the course of each Short Course offered. The River Systems Institute and TSU faculty will provide copies of their presentations for the Short Course prior to the first event in June 2008.

Activity this reporting period:

RSI staff presented on Volunteer Monitoring at the Short Course on June 5, attended the entire course and participated as a student as well as a facilitator as needed. Dr. Rast and Eric Mendelman presented once and speakers that were contacted by RSI presented an additional 3 presentations.

Task 2.3 CPM Program Credit – The Texas River Systems Institute will coordinate with TWRI to offer Short Course participants CPM (Certified Public Manager) credit through the William P. Hobby Center for Public Service at Texas State University.

Activity this reporting period:

RSI staff is continuing to develop strategies for reducing costs of the CPM program so that the cost of offering CPM credit will be more compatible with Short Course registration costs.

OBJECTIVE 3: REPORTING

Goal: To provide TCEQ and EPA with a comprehensive report on the activities and success of the project conducted during the course of this project.

Task 3.1 Quarterly Progress Reports – The Texas River Systems Institute will assist TWRI with development of quarterly progress reports.

Activity this reporting period:

Provided herein.

Task 3.2 Final Report – The Texas River Systems Institute will assist TWRI with development of the final project report.

Activity this reporting period:

To be determined as the final report is prepared.

DELIVERABLES:

- Attendance At Quarterly Steering Committee Meetings
- Report Of Activities For Quarterly And Final Report

- 5-10 presentations made at each Short Course
- Copies of each PowerPoint Presentation for inclusion in course material
- CPM credits to interested participants

ESTIMATED WORK YEARS:

November 1, 2007 - August 31, 2009

Evaluation

RSI continues to revisit the idea of offering CPM credit at this course. RSI has met with a CPM instructor Dr. Lee Williams who is a very competent speaker on organizational communication. His fee is relatively high and RSI is working with the relevant academic and continuing education departments to determine how costs can be minimized.

RSI will discuss with the TWRI project manager the status of the following deliverable: 5-10 presentations made at each Short Course. Since RSI might not deliver a minimum of 15 presentations for all three Short Courses, staff will discuss ways in which the effort can be redistributed.

Appendix B
Texas Watershed Planning Short Course
DRAFT Course Agenda – January 12-16, 2009

Monday, January 12, 2009

- 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 – 2:00 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, (3) an overview of the course, its purpose and structure and (4) a brief discussion of *The Best Watershed-Based Plans in the Nation* and its implications on the training. It will also provide an introduction to the watershed planning process as described in Chapter 2 of EPA's *Handbook for Developing Watershed Plans to Restore and Protect Our Waters (Handbook)* and briefly discuss why plans should be developed, how watershed protection plans (WPPs) interact with other water resources planning processes, and background on watershed plans/planning.
- 2:00 – 2:30 pm **Nine Elements of a Watershed Protection Plan Rush**
Provide an in-depth overview of the Nine Elements to be included in a WPP as outlined in Chapter 2 of the *Handbook*.
- 2:30 – 3:10 pm **Perspectives on WPPsPanel**
This session will describe (1) the goals and importance of WPPs, (2) how WPPs fit into local, state and federal objectives and interact with other local, state and federal programs, and (3) current issues affecting watershed planning efforts.
- 3:10 – 3:30 pm **Break**
- 3:30 – 5:00 pm **Working with Stakeholders to Move the Process ForwardMacPherson**
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*.
- 5:00 – 5:45 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
8:00 – 9:00 pm (optional)	Q & A This session provides participants the opportunity to discuss issues and questions regarding partnership building, the nine key elements, and WPP perspectives with other watershed coordinators, EPA, TCEQ and TSSWCB.

Tuesday, January 13, 2009

8:00 – 8:45 am	Breakfast
8:45 – 9:30 am	Defining the Scope of the WPPWendt This session will discuss identifying issues of concern, developing preliminary goals, and selecting indicators of environmental conditions as outlined in Chapter 4 of the <i>Handbook</i> .
9:30 – 10:30 am	Gathering data to assess your watershed.....Dictson/Wagner 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 <i>Handbook</i> ; (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.
10:30 – 10:50 am	Break
10:50 – 12:00 pm	Analyzing Data to Characterize Your WatershedDavenport 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 <i>Handbook</i> 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. Session will also discuss refining goals, identifying management objectives, and determining load reductions needed as described in Chapter 9 of the <i>Handbook</i> .
12:00 – 1:00 pm	Lunch
1:00 – 2:00 pm	Simple Tools for Estimating Loads and Load Reductions..... Kenimer This session will demonstrate how to use load duration curves (LDC) to determine needed pollutant load reductions and assess potential sources of the pollutants. The use of simple mass balance and spreadsheet models will also be reviewed and demonstrated for use in assessing watershed pollutant loadings, reductions needed, and sources. Chapter 8 of the <i>Handbook</i> will be highlighted.
LDC Exercise	
2:00 – 3:00 pm	Communicating to Diverse Audiences to Achieve Your GoalsMacPherson There is no one-size fits all approach. This session will explore various strategies and techniques to translate technical data into useful information.
3:00 – 3:20 pm	Break

- 3:20 – 5:00 pm **Web-Based Tools for Watershed Assessment & Management McDonald**
 Web-based tools available from EPA to support watershed planning will be reviewed.
- 5:00 – 5:30 pm **Expectations for Element A Lamb**
 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.
- 5:30 – 6:00 pm **Revising the Texas Water Quality Standards J. Davenport**
 What can watershed groups do if they think, after completing data analysis for Element A, that the water quality standards are not appropriate and it might be advisable to do a UAA? This session will outline the steps that must take place as well as the status of current triennial standards review, especially as related to standard for contact recreation/bacteria.
- 6:45 pm **Dinner**
- 8:00 – 9:00 pm
 (optional) **Q & A**
 This session provides participants the opportunity to discuss issues and questions regarding Element A and watershed characterization with other watershed coordinators, EPA, TCEQ and TSSWCB.

Wednesday, January 14, 2009

- 8:00 – 8:45 am **Breakfast**
- 8:45 – 10:00 am **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).
- 10:00 – 10:20 am **Break**
- 10:20 – 11:30 am **Perspectives on Monitoring, Modeling and Decision Making Harmel**
 An overview of the difficulties of data collection, the uncertainty in collected data, and how to use data in modeling and decision making will be discussed.
- 11:30 – 12:00 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.
- 12:00 – 1:00 pm **Lunch**

- 1:00 – 1:30 pm **Pollutant Fate and Transport Mechanisms..... Kenimer**
 Knowing the fate and transport mechanisms of the pollutant(s) being addressed will help decision-makers select the most appropriate BMPs for their watershed. This session will discuss the fate and transport mechanisms for major pollutants encountered in the state and what types of practices are most appropriate for addressing them.
- 1:30 – 2:30 pm **Agricultural NPS Measures Wagner/Wendt**
 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.
- Ag BMP Assignment
- 2:30 – 3:30 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.
- 3:30 – 3:50 pm **Break**
- 3:50 – 5:00 pm **Other Approaches to Managing Pollutant Sources Thornton**
 In addition to conventional treatment methods, other options exist for achieving water quality protection and improvement. Among these are wetland development, riparian protection, and urban planning and zoning. This session will discuss these and other approaches and how to incorporate them into WPPs.
- 5:00 – 6:00 pm **Wastewater Treatment Systems Lesikar**
 This session provides an overview of (1) wastewater treatment systems (WWTFs and OSSFs), (2) their effectiveness in removing pollutants, and (3) the costs of implementing these measures.
- 6:45 pm **Dinner**
- 8:00 – 9:00 pm
 (optional) **Q & A**
 This session provides participants the opportunity to discuss issues and questions regarding BMPs, estimated load reductions, Element B and watershed characterization with other watershed coordinators, EPA, TCEQ and TSSWCB.

Thursday, January 15, 2009

- 8:00 – 8:45 am **Breakfast**

8:45 – 9:40 am	<p>Overview and Expectations for Element C Rush</p> <p>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 <i>Handbook</i>.</p>
9:40 – 10:25 am	<p>Cedar Creek Case Study Wolfe</p> <p>This session will discuss evaluating and selecting management practices for Cedar Creek. Session will also discuss developing decision criteria and summarizing evaluation results for presentation to stakeholders, obtaining feedback from stakeholders, ranking preferences, and selecting the final management strategy.</p>
10:25 – 10:45 am	<p>Break</p>
10:45 – 11:00 am	<p>Texas Watershed Steward Program Dictson</p> <p>This session provides an overview of the Texas Watershed Steward Program, a science-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.</p>
11:00 – 12:00 pm	<p>Targeting Critical Areas and Scheduling Implementation Davenport</p> <p>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 <i>Handbook</i>).</p>
12:00 – 1:00 pm	<p>Lunch</p>
1:00 – 2:00 pm	<p>Using Outreach to Develop & Implement WPPs - Element E MacPherson</p> <p>Outreach is a powerful tool to get stakeholders involved early in the planning process, promoting behavior change in the watershed, 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 <i>Handbook</i>.</p>
2:00 – 2:45 pm	<p>Developing Interim Milestones & Criteria to Measure Progress Davenport</p> <p>This component of the WPP is where the rubber meets the road. It is here that 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 key session will discuss developing interim measurable milestones (Element G) and establishing a set of criteria to measure progress (Element H) toward meeting water quality standards and other goals as presented in Chapter 12.4-12.5 of the <i>Handbook</i>.</p>
2:45 – 3:05 pm	<p>Break</p>

- 3:05 – 4:05 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.
- 4:05 – 4:20 pm **Using Volunteer Monitoring For Assessment and Outreach.....Mendelman**
This session provides an overview of Texas Watch, a statewide network of volunteers, partners, and institutions that promote a healthy and safe environment through education, data collection, and community action. This session will describe how voluntary efforts such as Texas Watch may be a valuable component to any WPP.
- 4:20 – 4:50 pm **Expectations for Element D Rush**
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.
- 4:50 – 5:35 pm **Cost – Benefit Analysis in Hickory CreekBanks**
This session will discuss the cost-benefit analysis completed for Hickory Creek. This very detailed analysis conducted by the City of Denton is, by many accounts, considered one of the best completed in Texas and will provide a great example for watershed coordinators to utilize to achieve the expectations for Element D.
- 5:35 – 6:00 pm **Lay person participation..... Thornton**
- 6:45 pm **Dinner**
- 8:00 – 9:00 pm
(optional) **Q & A**
This session provides participants the opportunity to discuss issues and questions regarding selecting BMPs, assembling the remaining elements of WPPs, and determining implementation costs with other watershed coordinators, EPA, TCEQ and TSSWCB.

Friday, January 16, 2009

- 8:00 – 8:45 am **Breakfast**
- 8:45 – 10:30 am **Financing Watershed Implementation Jarocki**
This session will provide an overview of Plan2Fund, Plan2Fund OPT, and the Directory of Watershed Resources developed by the Environmental Finance Center (EFC) for helping implement watershed plans.
- 10:30 – 10:50 am **Break**

- 10:50 – 11:15 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*.
- 11:15 – 12:00 pm **Implementing your WPP.....** **Thornton**
 This session will discuss what to do once the WPP is ready for implementation as described in Chapter 13 of the *Handbook*, including implementation strategies, adaptive management, and what you can do to ensure the long-term sustainability of your WPP. Options such as developing 501(c)(3) organizations will be reviewed.
- 12:00 – 12:30 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.
- 12:30 pm **Adjourn; Lunch**
 Certificates will be distributed as the class turns in their post-course exam and course evaluations.

Appendix C
Texas Watershed Planning Short Course
June 2-6, 2008 Course Participants

Last Name	First Name	Title	Agency
Anderson	Trey	Ecologist/GIS Specialist	Castilaw Environmental Services, LLC
Barrett	Jenna	Environmental Specialist	Brazos River Authority
Berg	Matt	Water Quality Program Specialist	Texas AgriLife Extension Service
Bilbe	Lauren	Project Manager	TCEQ
Bragg	Jay	Regional Environmental Planner	Brazos River Authority
Brockette	Lewis	Environmental Specialist	Castilaw Environmental Services, LLC
Buratti	Jennifer	Project Manager	TCEQ
Casebolt	Pamela	Project Manager	Texas State Soil and Water Conservation Board
Castilaw	Anthony	President	Castilaw Environmental Services, LLC
Chawla	Om	Sr. Environmental Planner	Houston Galveston Area Council
Clary	Dickie	Commissioner	Hamilton County
Conine	Mitch	Project Manager	Texas State Soil and Water Conservation Board
Daugherty	Sharon	Grant Specialist	EPA Region 6
Delagarza	Laura	Arroyo Colorado Watershed Coordinator	Texas Water Resources Institute
Delk	Jennifer	Project Manager	TCEQ
Dyer	Phyllis	Research Technician II	Texas AgriLife Research
Escobar	Vanessa	Water Conservation Planner	Texas Water Development Board
Ethridge	Beverly	Environmental Specialist	EPA
Gregory	Lucas	Project Manager	Texas Water Resources Institute
Hauck	Larry	Deputy Director	Texas Institute for Applied Environmental Research
Henley	Loren	Project Manager	Texas State Soil and Water Conservation Board
Hoffman	Jason	Vice-President	Castilaw Environmental Services, LLC
Ilieve	Peter	Program Manager	RTI International
Johnston	Steven	Monitoring & Research Water Sediment Quality Coordinator	TCEQ/ Galveston Bay Estuary Program
Jones	Louanne	Information Specialist III	Texas Commission on Environmental Quality

Last Name	First Name	Title	Agency
Koch	Brian	Regional Watershed Coordinator	Texas State Soil and Water Conservation Board
McAlister	Jason	Research Assistant	Blackland Research Center
Mendelman	Eric	Director, Initiative for Watershed Excellence	Texas State University - River Systems Institute
Moran	Ernest	Watershed Monitoring Supervisor	San Antonio River Authority
Morgan	Tiffany	Environmental Service Manager	Brazos River Authority
Palmie	Mark	Project Manager	TCEQ
Potter	Steve	Research Scientist	Texas AgriLife Research
Powers	Rachel	Sr. Environmental Planner	Houston-Galveston Area Council
Prcin	Lisa	Research Assistant	Texas AgriLife Research
Ramsey	Kathleen	Sr. Environmental Planner	Houston Galveston Area Council
Ross	Amanda	Volunteer Coordinator	Lower Colorado River Authority
Running	Todd	Clean Rivers Program Manager	Houston Galveston Area Council
Smith	Nelly	Environmental Engineer	EPA Region 6
Solmonsson	Bud	Watershed Program Manager	Texas AgriLife Extension Service, Texas Sea Grant
Thomas	Lee	Caddo Watershed Coordinator	Northeast Texas Municipal Water District
Waidler	David	Research Associate - Watershed Coordinator	Texas AgriLife Research
Wimberly	Penny	Watershed Administrator	City of Waco
Wolfe	Clint	Grant and Program Coordinator	Texas AgriLife Research

Appendix D

June 2-6, 2008 Course Evaluation Results

Presentation	Level of Satisfaction						
	1	2	3	4	5	No Answer	Average
Nine Elements of a Watershed Protection Plan	0	5	9	13	8	7	3.7
State and Federal Perspectives on WPPs	0	6	8	18	6	4	3.6
EPA Watershed Plan Builder	0	3	11	16	9	3	3.8
Working with Stakeholders to Move The Process Forward	0	0	3	11	26	2	4.6
Using Outreach to Develop & Implement WPPs – Element E	0	0	1	12	27	2	4.7
Partnership Building Experiences in Plum Creek	0	0	5	19	18	0	4.3
Communicating to Diverse Audiences to Achieve Your Goals	0	0	2	17	23	0	4.5
Web-Based Tools for Watershed Assessment & Management	0	5	15	10	10	2	3.6
Defining the Scope of the WPP	0	4	14	13	9	2	3.7
Gathering data to assess your watershed	0	0	8	26	8	0	4.0
Analyzing Data to Characterize Your Watershed	0	2	12	16	11	1	3.9
Expectations for Element A	0	5	13	13	9	2	3.7
Overview of Models for Estimating Loads & Reductions	0	1	11	22	6	2	3.8
Spreadsheet/Time Variable Models	0	2	7	18	13	2	4.1
Perspectives on Monitoring, Modeling & Decision Making	1	0	9	13	18	1	4.1
Setting Goals & Identifying Load Reductions Needed	1	3	13	17	7	1	3.6
Expectations for Element B	1	0	13	17	7	4	3.8
Pollutant Fate and Transport Mechanisms	0	2	9	21	8	2	3.9
Agricultural NPS Measures and WQMPs	1	0	7	20	12	2	4.1
Urban NPS Measures	0	0	5	15	20	2	4.4
Wastewater Treatment Systems	2	6	8	15	10	1	3.6
Other Approaches to Managing Pollutant Sources	1	0	5	16	18	2	4.3
Prioritizing and Selecting Management Measures	0	7	12	9	11	3	3.6
Overview and Expectations for Element C	0	1	10	17	11	3	4.0
Targeting Critical Areas and Scheduling Implementation	0	0	1	20	19	2	4.5
Developing Interim Milestones & Criteria to Measure Progress	0	0	5	18	17	2	4.3
Designing & Implementing Effectiveness Monitoring	0	0	8	22	8	4	4.0
Using Volunteer Monitoring For Assessment and Outreach	2	1	16	14	8	1	3.6
Texas Watershed Steward Program	0	0	10	15	15	2	4.1
Financing Watershed Implementation	0	1	9	17	13	2	4.1
Expectations for Element D	0	0	8	21	3	10	3.8
Putting It All Together – Now What?	0	0	3	13	7	19	4.2