

**Texas Watershed Planning Short Course**  
**CWA 319(h)**  
**TCEQ Agreement No. 582-7-77049**

Quarter no. 3 From 9/1/07 Through 11/30/07

**I. Abstract**

The third and fourth planning team meetings were held on October 1 and November 20, respectively. Through these and other meetings, a course agenda has been developed and is nearing completion. TWRI initiated a subcontract with TCE to secure their assistance with the program. TWRI continues to negotiate the subcontract with the Texas River Systems Institute (RSI) to acquire their assistance. The Watershed Planning Short Course Webpage (<http://watershedplanning.tamu.edu/>) is up and running and was visited by a total of 131 visitors this quarter. The Mayan Dude Ranch has been reserved for June 2-6, 2008 for the first short course. Next quarter, TWRI will finalize the course agenda, speakers, and registration form, and begin advertising the course in earnest. Initial preparations of presentations will also begin. Finally, the *Applied Fluvial Geomorphology (AFG) Short Course* will be January 28-February 1, 2008. Interest in this course has been tremendous. The course was completely filled in less than 2 months. TWRI has been working to prepare the *Applied Fluvial Geomorphology Manual* that will be provided to the students at the short course. TWRI has also been evaluating field sites in the Bandera area to be used for the *AFG Short Course*. Over the next few weeks, TWRI will finalize all preparations for the course.

**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. The third Planning Team meeting was held on October 1, 2007 at TCEQ in Austin. The Planning Team discussed (1) the August 20<sup>th</sup> meeting with the Watershed Coordinators, (2) integration of the short course with TSU's Certified Public Manager program, (3) the course content and speakers, and (4) the timeline for the first Short Course. Representatives from the TCEQ NPS and TMDL Teams, TWRI, TCE, TSSWCB, TSU-River Systems Institute, and TAES participated in the meeting. Considerable progress was made on the short course agenda as a result of the input obtained at this meeting.

- b. On November 20<sup>th</sup>, the fourth Planning Team meeting was held at TWRI in College Station. The Planning Team further discussed the integration of the short course with the TSU CPM program, but spent a majority of the time discussing the course agenda and speakers. Representatives from TWRI, TSU-River Systems Institute and CPM Program, TCE, TSSWCB, TCEQ NPS and TMDL Teams, and TAES participated in the meeting.
- Regarding integration with the CPM program, the team determined that we could evaluate participant interest. The CPM program would need at least 20 interested participants to justify their participation. If there was sufficient interest, we would have to add at least a half day of lecture and an exam to the course to meet CPM program requirements and the course fee would have to be raised from the current \$295 to \$595.
  - If there is not sufficient interest at this time, the team determined that the short course materials developed should/could be provided to TSU for integration into the CPM program upon completion of the project.

**30% 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. 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. TCE and TWRI regularly participate in the TSSWCB Wharton Regional Office Watershed Coordination Project, further ensuring coordination.
- c. TWRI is working with Louanne Jones and Arthur Talley to gain input and coordination from the TCEQ TMDL Program. TWRI met with Louanne Jones on September 13 to gain input on the short course.

**30% 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 1, Quarter 2 Progress Report on September 14, 2007.

**30% 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. On September 20, a Post Award Conference was held in College Station. Personnel from TCEQ met with TWRI and Contract and Grants staff to discuss the scope of work, contract terms and conditions, invoicing requirements and payment procedures, potential problem areas, and contractor performance evaluations.
- b. On September 24, TWRI attended a brief meeting with the TCEQ project manager to gain feedback on the short course and the project as a whole.
- c. TWRI met with the River Systems Institute (RSI) at Texas State University on September 20, November 1, and via conference call on November 15 to negotiate a subcontract to secure their assistance with developing and delivering the Short Course. The scope of work is near completion pending finalization of the Short Course agenda. TWRI is also awaiting RSI's final budget. Once the scope of work and budget are finalized, they will be provided to TCEQ for review prior to initiation.
- d. The subaccount for TCE was established on October 3, 2007 to secure their assistance with developing and delivering the Short Course.

**30% 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 first invoice was submitted on August 31, 2007. The second invoice will be submitted in December 2007.

**30% Complete**

*Task 1.6: Contractor Evaluation – TWRI will participate in Contractor Evaluation (as scheduled).*

The following actions have been completed during this reporting period:

- a. The Contractor Performance Evaluation Report was submitted to TCEQ on September 10, 2007 covering the period of 2/15/07 – 8/31/07.

**33% 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.
- b. No activity to report this quarter.

**30% 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. The Short Course agenda is nearing completion and is expected to be finalized in December. During this quarter, the course agenda has gone through at least 3 iterations. The most current agenda is attached. It follows the step-by-step process of developing WPPs as outlined in EPA's *Handbook for Developing Watershed Plans to Restore and Protect Our Waters*.

**30% 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 has developed the Website (<http://watershedplanning.tamu.edu/>).
- b. The website was viewed by 26 unique visitors in September 2007.
- c. The website was viewed by 72 unique visitors in October 2007.
- d. The website was viewed by 33 unique visitors in November 2007.

**30% 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 first *Watershed Planning Short Course* is set for June 2-6, 2008.

- b. On September 27<sup>th</sup>, TWRI visited the Mayan Ranch to make arrangements for the short courses.
- c. TWRI worked with the planning team to identify speakers for the course. Only a few spots are left to fill. In addition to the planning team meetings discussed in Task 1.1 and the meetings with RSI discussed in Task 1.4, TWRI also met with TAES, EPA and other watershed coordinators to obtain input on the short course.
- d. On September 18, TWRI met with EPA to obtain input on the Short Course agenda and speakers. A number of staff from EPA Region 6 were identified as potential instructors including Brad Lamb and Randy Rush.
- e. On September 24, TWRI met with Mel Vargas, Parsons Engineering. Mel has been active in TMDLs and watershed planning for a number of years and provided good insight on topics and speakers for the course.
- f. On October 16, a Save The Date was emailed to all invitees to the first *Watershed Planning Short Course*.
- g. On October 18, TWRI met with Dr. Kenimer (TAES) regarding the Watershed Planning Short Course. Dr. Kenimer will serve as one of the instructors and cover topics on modeling and best management practices.

**30% 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. No activity.

**0% 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. The *Applied Fluvial Geomorphology (AFG) Short Course* will be held on January 28-February 1, 2008 at the Mayan Dude Ranch in Bandera.
- b. The contract with Wildland Hydrology was initiated In October 2007.
- c. A conference call between TCEQ and TWRI was held on September 12 to discuss who should be invited to attend the *AFG Short Course*.
- d. On September 14, the invitee list was assembled and following approval by TCEQ, it was emailed out on September 17, 2007. By November 13, the course was completely filled. Registrants include 13 from TCEQ, 3 from the Texas Forest Service, 22 from Texas Parks and Wildlife Department, 1 from TWRI, and 5 from TXDOT.
- e. On November 13, a site visit of the Bandera area was conducted in conjunction with TXDOT to evaluate sites for inclusion in the course. TWRI is also working with TPWD to identify sites for the course. Final selection will be completed in December before the Christmas Break.

- f. Confirmation letters were sent to all registrants on November 16, 2008.
- g. Copies of the *Applied Fluvial Geomorphology* Manual are being assembled and will be submitted to Copy Services for binding in December before the Christmas Break. TWRI has developed a rating curve, flood frequency analysis, hydraulic geometry plots, and downloaded USGS gage station data for the Medina River at Bandera for inclusion in the Manual.

**30% 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. No activity.

**0% 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 of Unusual Developments**

- Interest in the *Applied Fluvial Geomorphology Short Course* has been tremendous. The course filled in two months and a waiting list is being maintained for registrations that came in after the course filled. It is anticipated that an additional offering of the *Applied Fluvial Geomorphology Short Course* or Rosgen's Level II Course, *River Morphology and Applications Short Course* would be well received. As funding allows, such offerings should be considered.

#### **IV. Projected Work for Next Quarter**

- Prepare and submit Year 1, Quarter 3 Progress Report
- Finalize and initiate subcontract with Texas River Systems Institute
- Finalize agenda for Short Course and confirm all instructors
- Begin work on questionnaire
- Finalize Flyer and Registration Form for Short Course
- Update Webpage as materials are developed
- Send email reminder to invitees to register for first *Watershed Planning Short Course*
- Finalize site selections for *Applied Fluvial Geomorphology (AFG) Short Course*
- Compile Team Folders for the AFG Short Course (aerial photos, topographic maps, team assignments, and field forms)
- Confirm all arrangements for *AFG Short Course*
- Offer *AFG Short Course* on January 28 – February 1, 2008

## Texas Watershed Planning Short Course

June 2-6, 2008

### COURSE AGENDA

#### Monday

- 11:00 – 1:00 pm      **Registration**
- 1:00 – 1:10 pm      **Welcome and Orientation ..... K. Wagner**  
This will provide students (1) the opportunity to introduce themselves and the watersheds they are working in, (2) information on facilities, (3) an overview of the course, its purpose and its structure and (4) brief discussion of *The Best Watershed-Based Plans in the Nation* and its implications on the training.
- 1:10 – 1:40 pm      **Knowledge Assessment..... K. Wagner**  
A pre-course examination will determine the knowledge level of each student prior to going through the course. This will be compared to the results of the post-course exam in order to determine course impact/knowledge gained.
- 1:40 – 2:00 pm      **Introduction to Watershed Planning ..... K. Wagner**  
This topic will provide an overview of watershed planning process as described in Chapter 2, discuss why plans should be developed, and provide a historical perspective on watershed plans.
- 2:00 – 2:20 pm      **Where do WPPs Fit In? Federal Perspectives on WPPs..... R. Rush**  
This topic will describe (1) how watershed plans fit into federal objectives, (2) the goals and importance of watershed plans, (3) current issues, and (4) how plans interact with other federal programs.
- 2:20 – 2:40 pm      **Where do WPPs Fit In? State Perspectives on WPPs .....A. Wendt**  
This topic will discuss how WPPs fit into state objectives, the importance of WPPs, current issues, and how WPPs interact with other state programs.
- 2:40 – 3:30 pm      **Nine Elements of a Watershed Protection Plan .....S. Lehman**  
Provide an in-depth overview of the Nine Minimum Elements to Be Included in a Watershed Plan.
- 3:30 – 3:45 pm      **Break**
- 3:45 – 4:45 pm      **Getting Started With Stakeholders – Partnership Building ..... N. Dictson**  
Present materials from Chapter 3-4. Examine how you determine who is a stakeholder. Also discuss 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.



- 4:45 – 5:45 pm      **Facilitating Stakeholder Input .....**T. Trainor or TSU  
A brief training will be provided on facilitating meetings to gather input from stakeholders on goals, objectives, and targets.
- 5:45 – 6:30 pm      **Web-Based Tools For Watershed Assessment & Management.....**S. Lehman  
Web-based tools available from EPA to support watershed planning will be reviewed.
- 6:45 pm              **Dinner**
- 8:00 – 9:00 pm      **EPA Watershed Plan Builder .....**S. Lehman  
A short tutorial on the Watershed Plan Builder will be provided.

**Tuesday**

- 8:00 – 8:45 am      **Breakfast**
- 8:45 – 9:30 am      **Identification of Causes and Sources .....** B. Lamb  
The expectations for Element A will be discussed and reviewed to provide the students an understanding of how far they need to go with their identification of causes and sources.
- 9:30 – 10:15 am      **Determining Load Reductions .....**A. Wendt  
The expectations for Element B will be reviewed and discussed to provide students an understanding of the level of detail and effort needed.
- 10:15 – 10:30 am      **Break**
- 10:30 – 12:00 pm      **Gathering data to assess your watershed.....**A. Woodall  
What data do you need? Where do you find the data you need? How do you get info from TCEQ and other agencies? What are sources of published data that may be useful in my watershed? This topic will examine materials from Chapters 5-6. Possible alternate speaker is S. Lehman.
- 12:00 – 12:45 pm      **Lunch**
- 1:00 – 1:45 pm      **Analyzing Data to Characterize Your Watershed .....** A. Kenimer  
How do you analyze your data? What tools are available? Is modeling needed? This topic will concentrate on materials from Chapter 7 but will also review Chapter 8.1 and 8.2 to provide students 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.
- 1:45 – 2:30 pm      **Assignment 1: Evaluate Plum Creek Data & Characterize Watershed**  
Data gathered to develop the Plum Creek WPP will be distributed to the class to assess and characterize the watershed and identify causes and sources that need to be controlled (Element 1). The class will discuss their conclusions and compare their results to the Plum Creek WPP.

2:30 – 3:00 pm	<p><b>Using GIS for Assessment .....R. Karthikeyan</b>          Use of GIS for watershed analysis and source identification is an important component of watershed characterization. This topic will discuss using GIS for watershed characterization. <b>Possible alternate speaker is R. Srinivasan.</b></p>
3:00 – 3:15 pm	<p><b>Break</b></p>
3:15 – 4:00 pm	<p><b>Overview of Models for Estimating Pollutant Loads ..... L. Hauck</b>          If modeling is needed, what’s available and how do I select a model? This topic will present materials from Chapter 8.3-8.5 to give students an overview of the models available, expectations for what each can deliver (i.e. what you can and cannot get out of them), cost, and factors to consider when selecting models. Since most complex watershed modeling efforts must be contracted out, this presentation will provide general information on estimated costs, timelines, and data needs for the complex watershed models as well.</p>
4:00 – 4:45 pm	<p><b>Spreadsheet/Time Variable Models ..... A. Kenimer</b>          This topic will demonstrate how to use load duration curves to determine load reductions and assess sources. The use of simple mass balance and spreadsheet models such as the EPA STEPL model and others will also be reviewed and demonstrated for use in assessing watershed loadings, reductions needed, and sources.</p>
4:45 –5:30 pm	<p><b>Assignment 2: Estimating Pollutant Loads For Plum Creek Using LDCs</b>          The class will be split into 10 groups for this exercise. Flow and concentration data will be provided to each group to develop LDCs for Plum Creek and assess pollutant reductions needed. Results will be discussed and compared to the findings of the Plum Creek WPP.</p>
5:30 – 6:00	<p><b>Perspectives on Monitoring, Modeling and Decision Making ..... D. Harmel</b>          An overview of monitoring, modeling, and decision making will be provided. Understanding the difficulties of data collection, the uncertainty in collected data, and how to use that data in modeling and decision making will be discussed.</p>
6:00 – 6:45 pm	<p><b>Explaining Water Quality Data and Modeling to Stakeholders..... T. Trainor</b>          This topic will provide strategies/approaches to discussing water quality data with the public as well as guidance on how to communicate modeling efforts and results to stakeholders. <b>Possible alternate speaker is C. McPherson.</b></p>
6:45 pm	<p><b>Dinner</b></p>
<b>Wednesday</b>	
8:00 – 8:45 am	<p><b>Breakfast</b></p>
8:45 – 9:30 am	<p><b>Setting Goals &amp; Identifying Load Reductions Needed ..... TBD</b>          Present materials from Chapter 9 on setting goals and identifying load reductions.</p>

9:30 – 10:30 am	<p><b>Conflict Resolution/Consensus Building/Moving Forward..... W. Wright</b>          When it comes time to identify load reductions needed and distribute load reductions among the possible sources, conflict is almost always inevitable. How do you deal with this conflict, build consensus and move forward? This topic will discuss strategies for dealing with conflict. <b>If Dr. Wright from TSU is unable to participate, Dr. Tarla Peterson, TAMU has been recommended.</b></p>
10:30 – 10:45 am	<b>Break</b>
10:45 – 11:30 am	<p><b>Element C: Description of Measures Needed ..... R. Rush</b>          This topic will provide a discussion of EPA’s expectations for Element 3 as well as steps to select management practices as described in Ch. 10.</p>
11:30 – 12:00 pm	<p><b>Pollutant Fate and Transport Mechanisms ..... A. Kenimer</b>          Knowing the fate and transport mechanisms of the pollutant you are addressing will help you select the most appropriate BMPs for your watershed. This topic 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.</p>
12:00 – 12:45 pm	<b>Lunch</b>
12:45 – 1:15 pm	<p><b>Ag NPS Measures, WQMPs, and Conservation Plans ..... K. Wagner</b>          Agricultural nonpoint source measures in Texas are typically implemented through the SWCDs, TSSWCB, and NRCS as part of a water quality management plan or conservation plan. This topic will provide an overview of (1) agricultural BMPs and these plans, (2) developing a preliminary list of agricultural BMPs to address the issues of concern, (3) finding information on the effectiveness of BMPs, and (4) estimating implementation costs.</p>
1:15 – 1:30 pm	<p><b>Assignment 3: Select Ag BMPs for Plum Creek</b>          Using the NRCS Field Office Tech Guide, students will quickly select agricultural BMPs for Plum Creek. Selected BMPs will be compared and contrasted with those selected for the Plum Creek WPP.</p>
1:30 – 2:00 pm	<p><b>Urban NPS Measures ..... A. Kenimer</b>          This topic will provide an overview of (1) urban NPS measures, (2) developing a preliminary list of urban BMPs to address the issues of concern, (3) estimating cost of implementation of BMPs and (4) stormwater permitting.</p>
2:00 – 2:30 pm	<p><b>Wastewater Treatment Systems ..... R. Miranda</b>          This topic provides an overview of wastewater treatment systems (WWTPs and septic systems) and their effectiveness on various pollutants as well as how to incorporate them into voluntary WPPs. Included in this discussion will be point source permitting issues, along with the costs of implementing such measures. <b>Darrel Ball, GBRA, is a possible alternate for this topic.</b></p>

2:30 – 3:00 pm	<p><b>Other Approaches to Manage Pollutant Sources..... W. Rast</b>          In addition to conventional wastewater treatment, urban measures, and agricultural BMPs, there are a number of other options for achieving water quality protection and improvement. Among these are Wetland Development, Riparian Protection, and Urban Planning and Zoning. This topic will discuss these and others and how to incorporate them into watershed plans.</p>
3:00 – 3:15 pm	<p><b>Break</b></p>
3:30 – 4:00 pm	<p><b>Prioritizing Measures and Evaluating Options.....J. Thornton</b>          This topic discusses how to select the final management strategy for presentation to the stakeholders for their consideration as described in Chapter 11.1 – 11.4. Included in this discussion will be approaches for evaluating strategies, estimating performance, and cost considerations. <b>TSU will contact Jeff Thornton, SE Wisconsin Regional Planning Commission, regarding willingness to participate.</b></p>
4:00 – 4:30 pm	<p><b>Selecting Management Measures – Stakeholders Role ..... N. Dictson</b>          This topic will discuss the decision process for selecting management measures as presented in Chapter 11.5 including developing decision criteria, summarizing evaluation results for presentation to stakeholders, obtaining feedback from stakeholders, ranking preferences, and selecting the final management strategy.</p>
4:30 – 5:00 pm	<p><b>Targeting Critical Areas and Scheduling Implementation..... W. Rast</b>          To achieve the most effective and immediate benefit, measure implementation must be targeted to the most critical areas. This topic will discuss targeting of measures and the importance of this to success of the WPP. This topic will also discuss scheduling implementation efforts (Chapter 12.3) as described in the final management strategy. <b>Other potential speakers include Clint Wolfe (TAES) or Woody Frousard (TRWD).</b></p>
5:00 – 6:00 pm	<p><b>Assignment 4: Evaluate Element C and F of Plum Creek WPP</b>          Students will review Elements C and F of the Plum Creek WPP using EPA’s Nine Elements Evaluation Sheet. The class will be split into 8 groups. Two groups will review each of the following sections: the WWTP section of Element C, the ag section, the urban section, and the schedule for implementation (Element F). Student evaluations will be compared and contrasted with EPA’s evaluation.</p>
6:00 – 6:30 pm	<p><b>Q&amp;A Session on Elements A, B, and C</b>          This session provides participants the opportunity to discuss issues and questions regarding watershed characterization and management strategy development with other watershed coordinators, EPA, TCEQ and TSSWCB (i.e. Brad Lamb, Randy Rush, Laurie Curra, and Aaron Wendt).</p>
6:45 pm	<p><b>Dinner</b></p>

**Thursday**

8:00 – 8:45 am

**Breakfast**

8:45 – 9:15 am

**Developing Interim Milestones & Criteria to Measure Progress... K. Wagner**

This is where the rubber meets the road. It is here that you define in realistic terms how you 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 you're not on track. This key topic 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. Issues such as 5 year permit cycles and others must be considered and will be discussed. **Potentially request Tom Davenport to provide this presentation.**

9:15 – 10:15 am

**Panel Discussion on Elements G and H**

A panel of watershed coordinators from watersheds such as the Arroyo Colorado, Plum Creek, Bosque, Upper San Antonio River, and Lake of the Pines will review the development of Elements G and H for their respective WPPs and discuss the real environmental benefits expected/achieved as a result of their plans.

10:15 – 10:30 am

**Break**

10:30 – 11:30 am

**Designing & Implementing Effectiveness Monitoring – Element I... L. Hauck**

This topic will provide guidance on developing Element I as described in Chapter 12.6. Selecting an appropriate experimental design along with incorporating previous and ongoing (coordinated) monitoring will be discussed.

11:30 – 12:00 pm

**Using Volunteer Monitoring For Assessment and Outreach.... E. Mendleman**

The mission of Texas Watch is to facilitate environmental stewardship by empowering a statewide network of volunteers, partners, and institutions in a collaborative effort to promote a healthy and safe environment through education, data collection, and community action. This topic will show how efforts such as Texas Watch may be a valuable component to any WPP.

12:00 – 12:45 pm

**Lunch**

12:45 – 2:00 pm

**Designing an Information/Education Program – Element E..... T. Trainor**

Effective public involvement and participation is a necessary component to the success of WPPs. This topic will discuss development of an I/E Program that meets the needs in the watershed and fulfills Element E of the watershed plan as described in Chapter 12.2. **Randy Rush is a potential alternate speaker.**

2:00 – 2:30 pm

**Texas Watershed Steward Program ..... N. Dictson**

This topic 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 impairments. Incorporation of this program into WPP efforts empowers stakeholders by providing them with the knowledge to make informed decisions.

2:30 – 2:45 pm	<b>Plum Creek Education Program</b> ..... <b>N. Dictson</b> The I/E Program for the Plum Creek WPP and the methodology used to develop it will be presented.
2:45 – 3:00 pm	<b>Assignment 5: Assess Plum Creek Education Program</b> Using information provided in the previous two presentations, students will assess the Plum Creek Education Program and brainstorm on ways to improve it.
3:00 – 3:15 pm	<b>Break</b>
3:15 – 4:15 pm	<b>Conducting Public Outreach</b> ..... <b>T. Trainor</b> This topic will discuss strategies for conducting public outreach including using local media, adapting existing programs, and other strategies.
4:15 – 4:45 pm	<b>Identifying technical and financial assistance needed – Element D .... R. Rush</b> This topic will discuss estimating financial and technical assistance needed and identifying the sources/authorities that will be relied on for implementation. This is described in Chapter 12.7 and satisfies Element D of the nine key elements.
4:45 – 5:30 pm	<b>Sources of Federal and State Funding for Implementation</b> A panel of staff from TSSWCB, TCEQ, EPA, TWDB, and NRCS will discuss what sources of funding is available to assist with implementation, the mechanisms for requesting it, and match requirements.
5:30 – 6:30 pm	<b>Financing Watershed Implementation</b> ..... <b>B. Jarocki</b> Methods for financing watershed protection plan implementation will be reviewed along with resources available at the Northwest Environmental Finance Center.
6:45 pm	<b>Dinner</b>
 <b>Friday</b>	
8:00 – 8:45 am	<b>Breakfast</b>
8:45 – 9:45 am	<b>Financing Watershed Implementation, continued</b> ..... <b>B. Jarocki</b> How do you get past relying on grants? Methods for long-term financing watershed protection plan implementation will be reviewed.
9:45 – 10:15 am	<b>Putting It All Together – Now What?</b> ..... <b>K. Wagner</b> This topic will discuss assembling you plan, submitting it for approval, developing an evaluation framework and devising a method for tracking progress as described in Chapter 12.8 – 12.11.
10:15 – 10:30 am	<b>Break</b>

10:30 – 11:15 am	<p><b>Implementation Strategies/Adaptive Management/Sustainability....A. Wendt</b>          What can you do to ensure the long-term sustainability of your WPP? This topic will discuss what to do once your watershed plan is approved and ready for implementation as described in Chapter 13. Options such as developing 501(c)(3) organizations will be reviewed.</p>
11:15 – 11:45 pm	<p><b>Knowledge Assessment..... K. Wagner</b>          A post-course examination will determine the knowledge level of each student after going through the course. This will be compared to the results of the pre-course exam in order to determine course impact/knowledge gained.</p>
11:45 – 12:00 pm	<p><b>Course Evaluation</b></p>
12:00 – 12:45 pm	<p><b>Lunch</b></p>