

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

Quarter no. 2 From 6/1/07 Through 8/31/07

**I. Abstract**

The first and second planning team meetings were held on June 22 and August 20, respectively. The planning team decided that the best approach for delivering the Short Course was to follow the watershed planning approach. Based on this recommendation, a DRAFT agenda was developed. TWRI met with a number of Texas A&M faculty to discuss participation in developing and delivering the short course. In addition, subcontracts with TCE and the Texas River Systems Institute (RSI) have been drafted to secure their assistance with the program. The Watershed Training Webpage (<http://watershedplanning.tamu.edu/>) went online this quarter and will be updated and expanded as useful resources are identified or developed. Both a flyer and registration form have been drafted, which once finalized next quarter, will be added to the webpage. TWRI has scheduled meetings next quarter with the planning team, as well as individually with TCEQ, EPA, and RSI to obtain input on the course outline and identify speakers. The Mayan Dude Ranch has tentatively been reserved for June 2-6, 2008 for the first short course pending TCEQ's approval. Finally, the *Applied Fluvial Geomorphology Short Course* will be January 28-February 1, 2008. A block of 50 rooms at the Mayan Dude Ranch has been reserved for this event. Next quarter, TWRI will focus on making preparations for the *Applied Fluvial Geomorphology Short Course*, finalizing the course agenda, and contacting speakers 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 first Planning Team meeting was held on June 22, 2007 in College Station. The Planning Team reviewed the project's purpose and existing training programs, discussed teaching approaches, and began work on developing the course outline and identifying speakers. The full meeting summary is attached (Attachment 1).

- b. On August 20, the second Planning Team meeting was held in conjunction with a meeting of the Texas Watershed Coordinators. Much of this meeting focused on activities of ongoing watershed planning efforts and challenges that watershed coordinators are facing. The full meeting summary is attached (Attachment 2).
- c. The third Planning Team meeting has been scheduled for October 1.

**15% 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 being subcontracted to assist with development and delivery of the Short Course. This ensures coordination of the program with the Watershed Stewardship Program and Southern Region Water Quality Coordination Project.
- b. TSSWCB is a member of the planning committee and participated in both the June 22 and August 20 planning team meetings. In addition, 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. A meeting with Louanne Jones has been scheduled for September 13 to gain input on the program.
- d. A meeting with watershed coordinators from throughout the state was conducted on August 20 in conjunction with the 2<sup>nd</sup> Planning Team meeting. The watershed coordinators were made aware of the upcoming program and given the opportunity to provide input. See the meeting summary in Attachment 2 for more details.

**15% 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.

**15% 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 August 10, 2007, TWRI provided the River Systems Institute (RSI) with a draft subcontract to secure their assistance with developing and delivering the Short Course. Comments were received from the RSI on August 31, 2007. A meeting has been scheduled for September 20, 2007 to finalize the subcontract.
- b. On August 17, 2007, TWRI provided TCE with a draft subaccount notice to secure their assistance with developing and delivering the Short Course. TCE has verbally agreed to assist. Final initiation of the subaccount is pending final comment by TCE.

**15% 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.

**15% 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. No activity.

**0% 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. The list of existing programs was discussed with the planning team at the June 22<sup>nd</sup> meeting. A number of potential speakers were identified from previous training programs including Stuart Lehman, Theresa Trainor, Charlie MacPherson, Peter Nowak, Marty Fluharty, and Bill Jarocki.
- b. Course materials selected by the planning team to be provided to course participants include the *Handbook for Developing Watershed Plans to Restore and Protect Our Waters*, Watershed Plan Builder, example watershed plans, and course presentations.
- c. Information on EPA Internet Tools was received and is being considered for incorporation into the Short Course.

**15% 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. At the June 22<sup>nd</sup> planning team meeting, it was decided that the best approach for delivering the Short Course was to follow the watershed planning approach. A draft outline of the course agenda following this step-by-step process is attached (Attachment 3). Potential speakers are identified on the outline.

**15% 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 Webpage (<http://watershedplanning.tamu.edu/>).
- b. As resources are developed for the project, the webpage will be updated.

**15% 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. TWRI continues to work with the planning team to identify speakers for the course.
- b. On August 3<sup>rd</sup> and 10<sup>th</sup>, TWRI met with TAMU faculty members, Drs. Kenimer (Associate Dean for Academic Operations), Silvy (Water Management and Hydrological Sciences Program Coordinator) and Kaiser (Professor and Attorney RPTS) regarding participation of Water Program Faculty in developing and delivering the Watershed Planning Short Course. Several other faculty members also were identified as potential speakers for the Short Course.
- c. On August 17, TWRI discussed the Texas Watershed Planning Short Course with Stuart Lehman, EPA Headquarters. Stuart provided a number of recommendations regarding speakers and topics; and expressed a willingness to participate and make presentations on the Watershed Plan Builder (0.5 – 1.5 hours), Watershed Planning Process Overview (1-1.5 hours), and possibly Web Resources.
- d. Mel Vargas, Parsons Engineering, has expressed an interest in being an instructor.
- e. Meetings have been scheduled to identify potential speakers from TCEQ, EPA, and RSI for September 13, 18, and 20, respectively.
- f. A flyer and registration form have been drafted (Attachments 4 and 5).

- g. The Mayan Dude Ranch has been contacted regarding availability.
- June 2-6 has tentatively been reserved for the first Short Course pending TCEQ approval.
  - Alternate dates of August 11-15 and 18-22 are also available. The dates must be confirmed by December 1 to ensure availability.

**15% 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. Dave Rosgen of Wildland Hydrology will deliver the *Applied Fluvial Geomorphology Short Course* on January 28-February 1, 2008.
- b. A block of 50 rooms at the Mayan Dude Ranch in Bandera has been reserved. Projected cost for food and lodging are \$121 per day per participant.
- c. A conference call between TCEQ and TWRI is planned for September 12 to discuss who should be invited to attend the course.

**15% 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 or Unusual Developments**

- The date of the first Short Course may have to be pushed back 3.5 months to June 2008. However, the delivery of the course will return to schedule following the first course with the second course being offered in the Winter of 2008-2009 and the final course being offered in the Spring of 2009.

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

- Conduct third planning team meeting on October 1, 2007 in Austin.
- Organize fourth planning team meeting.
- TWRI will prepare and submit Year 1, Quarter 3 Progress Report.
- Finalize and initiate subcontract with Texas River Systems Institute.
- Finalize and initiate subaccount for TCE.
- Submit Annual Contractor Evaluation.
- Continue to assemble course materials.
- Finalize agenda for Short Course and begin confirming instructors.
- Update Watershed Training Webpage as materials are developed.
- Finalize Flyer and Registration Form for Short Course.
- Confirm Mayan Dude Ranch reservations for Short Course.
- Initiate contract with Wildland Hydrology.
- Make arrangements for Applied Fluvial Geomorphology Course.
- Begin work on questionnaire.

## Attachment 1

### Texas Watershed Planning Short Course Planning Team Meeting

June 22, 2007  
10:00 am – 2:00 pm

#### Meeting Summary

#### **Planning Team Members Present:**

- TCEQ NPS Team – Jennifer Delk
- Texas River Systems Institute – Eric Mendlemen
- EPA – Randy Rush (via telephone)
- TCEQ TMDL Team- Arthur Talley
- TWRI – Kevin Wagner
- TSSWCB – Aaron Wendt
- TAES – Clint Wolfe

#### **Others In Attendance:**

- Pamela Casebolt – TSSWCB
- Anju Chalise – TCEQ NPS Team
- Laurie Curra – TCEQ NPS Team
- Lucas Gregory – TWRI
- TJ Helton – TSSWCB
- Louanne Jones – TCEQ TMDL Team
- Megan Meier – TWRI
- Jason Pinchback – Texas River Systems Institute
- Cecilia Wagner – TWRI (via telephone)

#### **Introductions:**

- The Planning Team was introduced and given an overview of the meeting's purpose.

#### **Purpose of meeting:**

- Review Project Purpose
- Review Existing Training Programs
- Discuss Teaching Approach
- Develop DRAFT Short Course Curriculum
- Develop Preliminary List of Potential Instructors

#### **Project Background**

- **Why do WPPs?** Incremental Clean Water Act 319(h) funding is tied to watershed plans, but more importantly, watershed plans are an important step to restore and protect watersheds.
- **Where do WPPs apply?**

- This is outlined in the TCEQ/TSSWCB MOA.
- Can develop WPP to implement TMDL for 5a. The load allocation is determined through TMDL.
- For waterbodies where a TMDL hasn't been initiated, need to develop WPP w/in first 6 years of listing on 303(d) list. WPPs must demonstrate sufficient progress in achieving water quality to prevent TMDL.
- For 4b waters, EPA guidance lays out plan for use of WPP
- **Why training is needed?**
  - *The Best Watershed Plans in the Nation* identifies several deficiencies in plans developed to date.
  - No EPA training is currently scheduled and Dov Weitman, Chief of EPA's Nonpoint Source Control Branch, highly stressed that he's pleased that TX has training.
  - Randy Rush stressed that the course shouldn't lose Texas focus even if other states participate. The course should focus on issues around the state.
- **Who is training for?**
  - First course for all active watershed coordinators and invited agency personnel from GLO, TWDB, TPWD, TCEQ, TSSWCB, future grantees, and maybe TXDOT and river authorities.
    - Agencies should develop list of participants they would like to be invited from their agency and send to Kevin
    - Mix and match attendees
  - May need prerequisite/pre-training packet for non-water professionals
    - Big challenge to bring city participants to common ground on knowledge
    - Maybe use Texas Watershed Steward program or Texas Watch as pre-requisites
    - Also include pre-course self-evaluation (best if online) before the course
    - Put short course materials online or send course overview with general watershed information for participants to review
  - Possibly cater 1 course towards municipalities/phase I stormwater cities
    - Do one for Houston/Galveston, 1 for DFW, 1 for smaller cities
- **Future program development**
  - Texas Watershed Steward Program got CEUs from TDA and for teachers
    - Could look at CEUs for engineers and others (TDA)
  - Web casting of short course
  - Develop college course at TAMU
  - Create certification program like Texas State Certified Public Manager program for mayors, council members, etc
    - Participate in helping with Nikki's Texas watershed steward program in order to maintain certification
  - Look at developing water modules

### **Existing Training Programs**

- Did an extensive search and not much out there
- *Watershed Partnership Seminar*, EPA

- Texas attendees included Aaron Wendt, Laura Delagarza, Will Hatler, Bill Bethel, Ellen Caldwell, Mike Bira, Bobby Hernandez, and others
- Laurie suggested “marrying” good points of EPA training with the watershed planning process
- Randy doesn’t want to just see a course that totally focuses on 9 elements because we’d lose elements like community and culture. He suggested setting up the framework on the process (step-by-step approach) and how it satisfies the 9 elements and then blend in other issues (i.e. stakeholders, etc.) with the course.
- Pros
  - Community Culture and Environment Presentation (Trainer)
    - very useful
  - Meeting Facilitation (Fluharty)
  - Financing Successful Watershed Implementation (Jarocki)
    - Big issue and could use help with
    - State of Ohio has done good job of getting funding, as well as Maryland
    - Include SRF and Foundation discussions
  - The Human Dimension (Nowak)
  - Breaking the Cycle: Moving the Data from the Desk to Daylight (MacPherson)
  - Possibly could include Schueller (great on urban watersheds); however, Texas’ John Jacob and Tom Davenport could cover this.
- Cons
  - Needed better case study/development of WPP
  - Never saw a completed WPP
  - Team building and personal development not good use of time
  - Focus not on 9 key elements
  - Too much focus on urban issues
- *Essential Elements for Successful Watershed Planning*
  - Heavy on geomorphology
  - Needed more emphasis on 9 key elements
    - Randy doesn’t want whole program on 9 key elements but definitely wants more than 1 morning
- Programs provided by the Watershed Institute, Indiana Watershed Leadership Program, and others were briefly mentioned but not discussed

### **Teaching Approach**

- Kevin discussed organizing the short course much like a college course and focusing on the biggest challenges faced by coordinators and making them the most important elements to be included in training.
- Two approaches were discussed, an elemental approach and a stepwise approach:
  - Element-by-Element Approach
    - The Planning Committee voted against this approach
    - Committee suggested that the course not be framed on 9 key elements, but set up on process and how it satisfies elements.
    - Draft 1 Agenda was axed in favor of using the planning process

- Step-by-Step Approach
  - Need to flow through WPP process from start to finish
  - Should include overview of 9 elements up front on beginning of first day
  - Could have inspirational speaker at beginning to set stage
    - Describe why we are doing this – water quality; economic growth
    - Or could have inspirational speaker as part of evening activities
  - Other evening activities could include:
    - Photographer (Gail Rothe has contact info)
    - Lena Beth Carmichael – Was this in my job description? Experiences of Watershed Coordinator in East Tennessee
    - TPWD Land Stewards
    - TSSWCB to discuss ag BMPs
    - Consultant displays
    - Need to discuss evening activities with Mayan Dude Ranch
  - For Partnership Building:
    - Look at driving forces behind partnerships
      - Why stakeholders may want to be included
      - WWTP regulations.
      - MS4 regulations
    - Stress that first stakeholder meetings are critical
    - Discuss identifying who major decision makers are
    - Possibly describe what should be addressed at each meeting
    - Discuss and provide example ground rules for committees
    - Include info on working with media
    - Include presentation on “Culture”
  - Implementation of WPPs could be discussed on last day after discussing EPA Watershed Plan Builder
- Case Studies vs. WPP development exercises OR COMBO
  - Committee liked using the same case study throughout the course
  - Could use existing plan like Sabine River Authority’s Orange County Plan
  - Parsons and TIAER have much experience with watershed plans. But, Parson’s San Antonio plan may not be suitable since it is only urban.
  - Randy stated he’s wavering between whether it’d be better for students to develop plan or do case studies (with good questions)
  - Could select parts of plans from different states to use as case studies
    - Need good plans (examples of what to do) and “not so good” plans (examples of what not to do)
  - Randy said examples from local and state governments may be better because they took the time to ensure successful and these plans are more community oriented
- Roundtable Discussion/Development of Curriculum
  - Involve TCEQ-SBEA, TCE, and TSU/River Systems Institute educators in teaching
    - Possibly form subcommittee/TAG to review curriculum
  - Need to include:

- Lecture, brainstorming, work groups and case studies
- Assignments (Arkansas Lego assembly was suggested)
- Quizzes/daily assessments
- Ways to address barriers to having a good WPP such as:
  - Insufficient financial resources and data
  - Who/where are the resources
- Networking time
- Expectations of agencies (EPA, TSSWCB, TCEQ) – this needs to be a big part as people don't know this. Zero in on expectations
- Entry and exit test
- Issue board/community message board for participants
- Set aside time for group discussion
- Watershed coordinators need to understand where resources are, the science, and the expectations for each element
- Randy sees training as ideally a way to develop marketing tool for watershed (not just way to get 319 funding)

### **Potential Instructors**

- It was recommended that a process be developed for identifying and interviewing potential instructors
- Once instructors are identified, they should be sent a list of points they must cover in order to qualify for the honorarium
- Potential Instructors discussed include:
  - Stewart Lehman, EPA
  - Theresa Trainor, EPA
  - Charlie MacPherson, Tetra Tech, Inc.

### **Potential Locations**

- Committee supported having course in a natural setting such as:
  - Bandera (Mayan Dude Ranch)
  - LCRA – 3-5 places available but would have to contract with local vendors for food. However, Buchanan LCRA has good cook.
- Could potentially have regionally located meetings later as follow-ups (i.e. Houston/Galveston Area, DFW Metroplex, etc.)

### **Course materials – CD or hard copy**

- In course, integrate how to use resources and include materials like:
  - Sample invitation letters to stakeholders meeting
  - Sample ground rules, etc.
- *Handbook for Developing Watershed Plans* – Hard copy
- Watershed Plan Builder – good resource
- Copies of Presentations (CD)
- Getting in Step – Hard copy
- Example WPPs
- Watershed Steward Program Materials

### **Project Timeline**

- Committee recommended targeting week of March 3-7 for first course
- Once date confirmed, need to send “save the date” to selected participants
- Next quarterly meeting
  - Include watershed coordinators
    - Have a roundtable discussion
    - Have each coordinator give an overview
    - Discuss how agencies can help now
    - Discuss what is needed in training
  - Possibly have on August 20<sup>th</sup> or 21<sup>st</sup>
  - Rotate venue (August in Temple and October in Austin)
  - Avoid August 7-9, 13-16, and last week (monitoring conference in Austin)
  - Avoid October 4, 15-19 and TSSWCB meeting (October 22-24)

### **Things To Do:**

- Email our agenda with speakers inserted and times removed
  - Request lengths for each subject
- Discuss evening activities with Bandera
- Talk to Theresa Trainor and Tom Davenport regarding training and recommendations. Can conference call Planning Committee in if needed.
- Evaluate potential pre-workshop primers
- Look at setting up subcommittees to delegate tasks to specific groups – work with Louanne
- Need to lay out schedule of activities to get program prepared by March
- Request list of participants for 1<sup>st</sup> short course from each agency
- Visit River Systems Institute ASAP to initiate contract

Attachment 2

Texas Watershed Coordinators Meeting /  
Watershed Planning Short Course  
Planning Team Meeting  
August 20, 2007  
10:00 am – 3:00 pm

**MEETING SUMMARY**

**Attendees:**

Beverly Allen – NETMWD	Brian Koch – TSSWCB
Jacob Daniel Apodaca – LCRA	Brad Lamb – EPA
Jenna Barrett – BRA	Stephen Lusk – SARA
Matt Berg – TCE	Mark McFarland – TCE
Robin Berry – LCRA	Susan Meckel – LCRA
Jay Bragg – BRA	Megan Meier – TWRI
Pamela Casebolt – TSSWCB	Eric Mendelman – River Systems Institute
Anju Chalise – TCEQ	Theresa Murray – LCRA
Om Chawla – H-GAC	Jennifer Peterson – TCE
Laurie Curra – TCEQ	Alicia Reinmund – LCRA
Laura Delagarza – TWRI	Randall Rush – EPA
Jennifer Delk – TCEQ	Bud Solmonsson – TAMU
Nikki Dictson – TCE	Mel Vargas – Parsons
Mary Wright Eyster – TCEQ	Cecilia Wagner – TWRI
Lucas Gregory – TWRI	Kevin Wagner – TWRI
Will Hatler – TCE	Clint Wolfe – TAES
Cory Horan – TCEQ	Aaron Wendt – TSSWCB
Ann Kenimer – TAMU	

**Purpose of Meeting:**

- Discuss Ongoing And Completed Watershed Planning Efforts
- Provide Input On Watershed Planning Short Course
- Review Watershed Steward Program
- Discuss Current Issues With Watershed Planning Efforts

**TCEQ Watershed Protection Plans**

- Upper San Antonio ..... Steve Lusk, SARA
  - WPP evolved from BMP construction project
  - Bacteria impairment
  - Public Participation consisted of:

- 3 public meetings over 8 months
    - 1200 invitations sent out
    - 40-45 people attended each meeting
    - Had large maps to identify sources
    - Few of participants had watershed planning knowledge prior to participation
    - Formed River Oversight Committee – largest stakeholder was BRWM
    - BRWM (Bexar Regional Watershed Management) represents County Commissioners, City Council, SARA and suburb officials
    - The Water Quality Focus Group of the committee put together the plan through monthly meetings
  - TCEQ approved the WPP in January 2007
  - Created table to organize pollution sources, how to manage, estimated load reduction, technical/financial assistance needed, etc.
  - Developing the timeline was difficult with getting the group to commit being the most difficult part
  - Zoo discharge was a major source; however, NPS runoff was largest source
  - \$1 million committed for UV treatment of zoo discharge; however, permitting process has slowed implementation
  - Main issues SARA had to deal with are (1) the area is completely built out and no room for big projects, (2) lack of data to pinpoint sources, and (3) dealing with stormwater tunnel under city.
  - Having BRWM and agreement between the city of San Antonio and Bexar County supports watershed efforts and allowed completion of the WPP so quickly (17 mos)
  - A big obstacle SARA had to overcome was getting stakeholders together. Initially there was some reluctance from cities and county. If cities wouldn't have agreed to participate, then it would've been impossible to move forward.
  - The Interlocal Agreement used would be helpful for other groups.
  - Strategy for NPS Issues = New power washers on river walk prevent runoff to river; street sweeping; scooping poop; etc.
  - Trying to monitor as they implement different components to determine the effect of each component. Hopefully won't have to implement all components to reach water quality goals, because full implementation would cost \$70 million.
  - ~\$2 million currently committed to implementation
- Arroyo Colorado .....Laura Delagarza, TWRI
  - WPP evolved from TMDL
  - Stakeholder group and Ground Rules originated with TMDL efforts.
  - Initial group was not “local” though, so key local members were added.
  - 5 major work groups were assembled. These groups developed restoration strategies.
    - Ag = voluntary implementation of BMPs through TSSWCB & NRCS
    - WWTP = meetings with city managers and public works directors (one-on-one) resulted in cities agreeing to stricter permit limits
    - O&E = consultants conducted survey, developed strategy, and created brand
    - Wetlands = top strategy is developing individual and regional wetlands; consultants developed this component

- Load reductions developed by Roger Miranda (TCEQ) with data from TMDL study (HSPF model of 14 subbasins in watershed). Graphs developed by Allan Plummer, Assoc. show where efforts should be concentrated
- Ag reductions estimated by SWAT model
- Ag and WWTPs were biggest issues
- Urban growth and assoc. NPS are growing issues
- Didn't have good data on urban runoff
- Reduction for Ag, WWTPs, and Regional wetlands were all that was used to calculate reductions
- Challenges:
  - People didn't believe it can be done
  - Funding = low per capita income & reluctance to raise taxes
  - Getting people to think outside the box
  - Making the plan the Communities' Plan
  - Giving all community leaders the opportunity for input/signoff
  - Things are changing = must have adaptive management
  - Issues with lack of data to determine loading and load reductions
    - DATA IS IMPORTANT TO KNOW WHERE TO CONCENTRATE EFFORTS
- Training should stress:
  - "Insight training" – everyone has different ways of doing things
  - Know how things work in your watershed

### **TSSWCB Watershed Protection Plans**

- Leon River and Lake Granger..... Jay Bragg, BRA
  - In addition to Leon & Granger, BRA has TCEQ funded WPP on Granbury
  - Leon = focus of this presentation
  - TCEQ has ongoing TMDL that stakeholders were skeptical of
  - Stakeholders asked BRA to develop WPP
  - BRA received grant from TSSWCB and contracted Parsons
  - Stakeholders defined as affected persons; universities & agencies have advisory role
  - BRA meeting one-on-one with key stakeholders for input before conducting larger public meetings
  - Education is needed first
  - WPP being done in place of TMDL
  - TMDL study is being used to develop WPP however
  - Recommendations by stakeholders (10 landowners) – address illegal dumping, feral hogs, bird roosting under bridges, range and pasture management (overgrazing, alternative water, etc), dairies, septic systems, and provide education for absentee landowners
  - Important to talk to key stakeholders prior to stakeholder meetings
  - Stakeholder process = using more informal process instead of formal voting body
  - Using consensus building
  - Have an advisory council = creates more buy-in

- Load reductions for TMDL used HSPF = BRA will try to use this model to evaluate implementation options
- Challenges include:
  - “Nay Sayers” who don’t think they’re part of the problem and want more data
  - Keeping costs down (many impaired waters to address in state);
  - Small cities (<30,000) – how to handle infrastructure improvement. This is a national problem. A USDA-RD Rural Community Assistance program may be able to help provide funding for waste water needs.
- Plum Creek..... Nikki Dictson, TCE
  - Plum Creek selected by Wharton Regional WCSC
  - Met with local, county and state officials to identify the influentials in the watershed
  - Conducted a watershed tour
  - Sent out 700 mail outs
  - News Releases in local papers – local papers deemed the project “news-worthy” for the first 2-3 articles. After that, had to pay for meeting announcements.
  - Put together a website
  - Held public meetings; gave survey
    - Formed steering committee and work groups based on survey results
    - Committee composed of 27 local residents with agencies serving on technical advisory group
  - Took steering committee on watershed tour
    - Provided presentations on issues to educate them and familiarize them with the watershed so that they could make educated decisions
  - Assessment tools used:
    - LDC to evaluate load reductions
    - SELECT used to identify sub-watershed loadings
    - SWAT planned to be done later
  - Getting data on wildlife numbers & septic systems is difficult
  - Restoration measures development
    - Examples of other WPPs provided to Partnership
    - Walked group through model results & data
    - BMPs selected by work groups
    - Prioritized implementation by sub-watershed and proximity to creek
  - Challenges:
    - Data gaps (new landuse, population data, wildlife, livestock, septic, BMP efficiencies, lack of electronic data in counties)
    - Specifics on BMP implementation (locations & numbers needed)
  - The watershed short course should include:
    - Resources available and other WPP examples
    - Sources of data
    - Options for assessment and modeling
    - Stakeholder facilitation & conflict resolution
    - Big question that should be answered is how much detail is needed to get the blessing of the agencies and stakeholders both of WPPs.

### **Third Party Watershed Protection Plans**

- North Central Texas Water Quality Project.....Clint Wolfe, TAES
  - Started in 2003 as a cooperative project between EPA & NRCS
  - Were initially going to do plans for 1 lake per year
  - Now in 4<sup>th</sup> year and the 1<sup>st</sup> one is just now done
  - Plenty of data available
    - Land use, soil type, WWTP discharges, and fertilizer use
    - Used for modeling
  - Working with sediment and nutrients (high Chlorophyll *a* concentration)
  - Stakeholder Approach:
    - Informal meetings were held until comfort level with data achieved
    - Larger steering committee met once comfortable with info and project was far enough along to have info to present to committee
    - Steering committee and work groups formed
  - Working with Vision North Texas to assess where urban growth will occur
  - Met with small groups to get assumptions used in model
  - Loading assessed by landuse and subwatershed
  - Evaluating loading reductions associated with WWTP upgrades
  - Challenges:
    - Watershed residents don't drink the water
    - Rapid development
    - Much of watershed under county's jurisdiction thus no zoning
    - Lack of info on BMP effectiveness
    - Getting models to work together

### **Texas Watershed Planning Short Course** .....Kevin Wagner, TWRI

- Funded by TCEQ using EPA 319 funding
- Purpose is to develop and deliver 3 weeklong short courses on watershed planning
- Participants will learn how to develop each of the 9 key elements of a WPP
- Tentative dates are Spring 2008, Winter 2008, and Spring 2009
- Certificates of completion to be provided
- Venue = Mayan Dude Ranch, Bandera, Texas
- Class size = 40
- Cost = \$350 plus meals and lodging
- Prerequisites = general water quality knowledge
- Instructors TBD
- Textbook = Handbook for Developing Watershed Plans to Restore and Protect Our Waters
- Course will cover:
  - Partnership Building
  - Watershed Characterization
  - Finalizing Goals and Identifying Solutions
  - Designing an Implementation Program

- Recommendations made by attendees included:
  - How can practitioners better explain “phased” implementation? Must do a better job explaining what adaptive management is and how you present that to stakeholders. Some against the phased approach of implementing WPP. This info should be incorporated into course.
  - Include agency expectations.
  - A template document may be beneficial
  - Include lessons learned from National Estuary Program (Galveston Bay)
  
- EPA reps said 1<sup>st</sup> 3 elements in WPPs are coming up short
  - EPA stated that first 3 elements are coming up short in watershed plans
    - They’re generally addressed
    - Trying to develop broad/general projects on minimal data
    - Modeling is suspect
    - Need more specifics on loading and not just generalization of sources
    - Don’t identify specific sources – before spending millions implementing, plans should do better job of assessment
      - It was suggested that EPA must invest more into assessment to achieve this.
    - 319 program really needing implementation resulting in restoration
    - Need to reduce level of uncertainty at outset to gain public confidence
    - Current watershed plans looking at too large of watershed. Suggest starting off small. Arroyo is too large.
      - It was suggested however that you can do larger watersheds for holistic strategy and then monitor effectiveness at smaller watershed scale.
    - Basically, EPA wants more robust data before implementing
      - But what if stakeholders “ready to roll” on implementing projects to reduce loadings?
      - If you make stakeholders wait too long to collect more data then they might lose interest and not participate.
      - Stakeholders want to see action and move forward and it is the agencies that want to see more data.
  - Instead of trying to get funding to collect more data, many WPPs have made some assumptions and just learned along the way
  - Short course needs to be much more specific than EPA guide. Course needs to describe what a good WPP looks like and provide fundamental guidelines.

**Texas Watershed Steward Program** ..... Jennifer Peterson, TCE

- Goals:
  - Enhance & sustain stakeholder involvement in WPP efforts
  - Increase citizen awareness
  - Empower individuals to take leading roles in water quality improvement

- Achieved with 1-day training program
- Provide CEUs for CCAs, TDA, and Teachers
- Have curriculum handbook & PowerPoint presentations
  - Program Intro
  - Overview of Watershed Systems
  - Overview of Watershed Impairments
  - Managing to Improve Water Quality
  - Community Driven Watershed Protection and Management
- Developing computer-based training
- Marketing program using brochure, fact sheet, post-cards, poster, banner & press
- Develop a program evaluation including:
  - Pre-test/Post-test
  - Delayed Post-test
- Can cater to specific watersheds and issues
- The TSU Certified Public Manager Program is similar to the Watershed Steward Program.

**Open Discussion** .....Aaron Wendt, TSSWCB

- Short Course Topic on “Reasonable Assurance” is needed
- Long-term sustainability is big issue
  - In Bastrop Bayou, plan will be turned over to citizens group by the COG. This gives instant ownership. Right now the citizens group is a loose alliance. It is envisioned that the citizens group will become a 501(c)(3).
  - Local governments have to be involved.
- Future meetings would be beneficial. Should primarily be for Open Discussion however.

# Texas Watershed Planning Short Course

## *DRAFT AGENDA*

### MONDAY AFTERNOON

**Welcome and Orientation** .....Kevin Wagner, TWRI (0.25 hr)

**Federal and State Perspective on TMDLs and WPPs in Texas**..... Randy Rush, EPA (0.25 hr)  
Faith Hambleton, TCEQ (0.25 hr)  
Aaron Wendt, TSSWCB (0.25 hr)

**Nine Elements of a Watershed Protection Plan** ..... Stewart Lehman, EPA (2 hrs)

#### **Partnership Building**

- Topics to be covered:
  - Identifying key stakeholders (Ch. 3)
  - Identifying issues of concern (Ch. 4)
  - Setting preliminary goals (Ch. 4)
  - Developing indicators (Ch. 4)
  - Conducting public outreach (Ch. 4)
- Presentations
  - The Human Dimension .....Peter Nowak, University of Wisconsin (1 hr)

### MONDAY EVENING

#### **EPA Watershed Plan Builder**

### TUESDAY

#### **Partnership Building, continued**

- Presentations
  - Community Culture and Environment.....Theresa Trainor, EPA (3 hrs)
  - Meeting Facilitation ..... Marty Fluharty (1 hr)
  - Moving Data from Desk to Daylight ..... Charlie MacPherson, Tetra Tech (1 hr)
  - Texas Watershed Steward Program ..... Nikki Dictson, TCE (1 hr)

#### **Watershed Characterization**

- Topics to be covered:
  - Gather existing data and create watershed inventory (Ch. 5)
  - Identify data gaps and collect additional data if needed (Ch. 6)

- Analyze data (Ch. 7)
- **Identify causes and sources to be controlled – Element A (Ch. 7)**
- Estimate pollutant loads (Ch. 8)
- Presentation
  - Intro. to Watershed Characterization ..... Stewart Lehman, EPA (2 hrs)
- Assignment 1: WPP Case Study

## WEDNESDAY

### Watershed Characterization, continued

- Assignment 1 Case Study Discussion (0.75 hr)

### Finalize Goals and Identify Solutions

- Topics to be covered:
  - Set overall goals and management objectives (Ch. 9)
  - Develop indicators/targets (Ch. 9)
  - **Determine load reductions needed – Element B (Ch. 9)**
  - Identify critical areas (Ch. 10)
  - **Develop management measures – Element C (Ch. 11)**
- Presentations
  - Determining load reductions ..... TBD (4 hrs)
  - Developing Management Measures ..... TBD (4 hrs)
- Assignment 2: WPP Case Study

## THURSDAY

### Finalize Goals and Identify Solutions, continued

- Assignment 2: WPP Case Study Discussion (0.75 hr)

### Design an Implementation Program

- Topics to be covered:
  - **Develop implementation schedule – Element F (Ch. 12)**
  - **Develop interim milestones to track implementation of management measures – Element G (Ch. 12)**
  - **Develop criteria to measure progress toward meeting watershed goals – Element H (Ch. 12)**
  - **Develop monitoring component – Element I (Ch. 12)**
  - **Develop information/education component – Element E (Ch. 12)**
  - **Identify technical and financial assistance needed to implement plan – Element D (Ch. 12)**
- Presentations
  - Develop implementation schedule ..... TBD (1 hr)
  - Develop interim milestones to track implementation ..... TBD (1 hr)

- Develop criteria to measure progress to meet watershed goals .....TBD (1 hr)
- Develop monitoring component ..... TBD (2.5 hrs)
- Develop information/education component ..... TBD (2.5 hrs)
- Assignment 3: WPP Case Study
- Assignment 4: WPP Case Study

## **FRIDAY MORNING**

### **Design an Implementation Program, continued**

- Assignment 3: WPP Case Study Discussion (0.75 hrs)
- Assignment 4: WPP Case Study Discussion (0.75 hrs)
- Presentations
  - Financing Watershed Implementation ....Bill Jarocki, NW Env. Finance Ctr (3 hrs)

### **Course Evaluation**

# “Texas Watershed Planning Short Course”

Mayan Dude Ranch

Spring 2008 – Bandera, Texas

Comprehensive watershed protection plans that outline ways to preserve or restore watersheds are becoming a widely-accepted approach to protecting Texas surface waters. Using a watershed approach to restore impaired water bodies addresses the problems in a holistic manner, and stakeholders in the watershed are actively involved in developing the management strategies and plans.

The goal of the “Texas Watershed Planning Short Course” is to equip watershed coordinators and water professionals with the tools they will need to plan, coordinate and implement watershed protection efforts. This course provides participants with guidance on stakeholder coordination, education, and outreach; meeting the Environmental Protection Agency's nine key elements of a watershed protection plan; data collection and analysis; and the tools available for plan development. The four-day course will cover:

- **Partnership Building**
- **Watershed Characterization**
- **Finalizing Goals and Identifying Solutions**
- **Designing an Implementation Program**

Individuals interested in or responsible for watershed protection and restoration including employees and volunteers with federal, state, county, and local agencies, soil and water conservation districts; universities; consulting firms; non-governmental organizations; and watershed groups will benefit from this course. This course will be especially beneficial those pursuing or receiving Clean Water Act Section 319(h) Grant funds, as this course provides guidance on meeting EPA’s nine key elements of a watershed protection plan.

## **Agenda**

[CLICK HERE FOR A DRAFT AGENDA](#)

## **Registration Information**

To register, please contact Kevin Wagner at [klwagner@ag.tamu.edu](mailto:klwagner@ag.tamu.edu) or (979) 845-2649 and complete a registration form.

[CLICK HERE FOR A REGISTRATION FORM](#)

## **Cost**

Registration Fee - \$350

## **Instructors**

TBD

## **Venue**

The course will be held at the **Mayan Ranch Conference Center** located in Bandera, 47 miles northwest of San Antonio, high in the beautiful Hill Country of Texas. A map to the ranch can be found at the following web address:

<http://www.mayanranch.com/Bandera%20Map.html>

## **Lodging Information**

**Mayan Dude Ranch** (<http://www.mayanranch.com/index.html>)

A block of rooms has been reserved at a special rate of \$\_\_\_ per night plus applicable taxes. This rate includes all meals and lodging. To receive this special rate, reservations must be made by \_\_\_\_\_. When making your reservation, please identify yourself as attending the “**Short Course**”.

**\*\*Please note that students are responsible for their own reservations.**

## **Travel Information**

### **Airports**

San Antonio International Airport (SAT) is only 60 minutes away. This airport is serviced by 21 air-carriers. For a list of SAT air-carriers, visit the following website:

<http://www.sanantonio.gov/aviation/airlines.asp>

### **Car Rental**

Car rentals are available at the San Antonio International Airport. For reservations, call the rental of your choice or go to the following website for links to the individual carriers:

<http://www.sanantonio.gov/aviation/carrentals.asp>

Advantage Rent-A-Car	1-800-777-5500
Alamo Rent-A-Car	1-800-GOALAMO
Avis Rent-A-Car	1-800-230-4890
Budget Rent-A-Car	1-800-527-0770
Dollar Rent-A-Car	1-800-800-4000
Enterprise Rent-A-Car	1-800-736-8222
The Hertz Corporation	1-800-654-3131
National Car Rental	1-800-CARRENT
Thrifty Car Rental	1-800-367-2277

# “Texas Watershed Planning Short Course”

Mayan Dude Ranch

Spring 2008 – Bandera, Texas

## Registration Form

*Please contact Kevin Wagner and return this form to reserve you spot.*

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Agency or Company: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Email Address: \_\_\_\_\_

To register and for additional information, contact Kevin Wagner at (979) 845-2649 or [klwagner@ag.tamu.edu](mailto:klwagner@ag.tamu.edu)

Fax Registration Form and Credit Card Information to:	<b>TWRI</b> (979) 845-8554	or	Send Registration form and payment to:	<b>TWRI</b> 2118 TAMU College Station, TX 77843
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**METHOD OF PAYMENT:** The registration fee is \$350 for the “Texas Watershed Planning Short Course.” Registration is guaranteed with full payment, which should be received no later than [REDACTED]. Registrations received after [REDACTED] will be charged an additional \$50 for late registration.

Payment by check is preferred. Please make checks payable to TWRI.

**PLEASE CHECK THE FOLLOWING:**

CHECK (payable to TWRI)

### CREDIT CARD:

American Express     MasterCard     Visa     Discover

\$ \_\_\_\_\_ Amount to charge

Card No.: \_\_\_\_\_ Exp. Date: \_\_\_\_\_ Verification Code: \_\_\_\_\_

I authorize TWRI to charge my credit card the amount indicated above for use as deposit or tuition to attend the “Texas Watershed Planning Short Course”. I agree to and understand the refund policy that is printed below.

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Written cancellations received 21 days before the first day of the course will be refunded the amount received less a \$50 processing fee. If a cancellation is received less than 21 days before a course, a \$100 processing fee will be retained. Substitutions are encouraged.