

Texas Riparian and Stream Ecosystem Education Project
CWA 319(h) NPS Grant Program
TSSWCB Contract No. 12-07

Quarter no. 2 From 01/01/13 Through 3/31/13

I. Abstract

In this quarter of the project work primarily focused on meetings with agency partners and the Planning Team and contacting watershed coordinators to try to start planning workshops across the state. Tasks also included updating webpages, gathering educational materials/presentations/evaluations, and visiting with some of the watershed coordinators about this program. TWRI has developed a website, program fact sheet, and general agenda. To advertise the new program we have conducted two presentations at several regional meetings to provide a brief program overview. Nueces River Authority has been working on digital tools and updating the Remarkable Riparian Website. TWRI has kept in touch with the Riparian Team in these initial steps to move the project forward.

II. Overall Progress and Results by Objective and Task

OBJECTIVE 1: PROJECT ADMINISTRATION

Administer, coordinate and monitor all work performed under this project including technical and financial supervision and preparation of status and final reports.

Task 1.1: Project Administration –TWRI/IRNR will prepare electronic quarterly progress reports (QPRs) for submission to TSSWCB. QPRs shall document all activities performed within a quarter and shall be submitted by the 15th of January, April, July and October. QPRs shall be distributed to all project partners.

The following actions have been completed during this reporting period:

- a. The QPR for the last quarter was submitted on 1/15/13 date.

16% Complete

Task 1.2: TWRI/IRNR will perform accounting functions for project funds and will submit appropriate Reimbursement Forms to TSSWCB at least quarterly.

The following actions have been completed during this reporting period:

- a. TWRI and OSRS submitted reimbursement forms for the last quarter.
- b. TWRI has processed invoices from NRA.

16% Complete

Task 1.3: TWRI/IRNR will host coordination meetings or conference calls, at least quarterly, with project partners to discuss project activities, project schedule, communication needs, deliverables, and other requirements. TWRI/IRNR will develop lists of action items needed following each project coordination meeting and distribute to project personnel.

The following actions have been completed during this reporting period:

- a. TWRI has conducted multiple meetings and teleconference calls with members of the Planning Team over the quarter including:
 - Meeting with Dr. Georgianne Moore, ESSM Planning team member 01/25/13.
 - Call with Anne Rogers, TRA Board on 1/07/13.
 - Calls with Tom Arsuffi, LRFS and Blake Alldredge, Agrilife Extension on 1/30/13 about the workshops and planning workshops in their watersheds.
 - Call with Hughes Simpson, TFS on forestry presentation, website links and CEUs contacts for forestry 2/14/13 and 2/17/13 along with multiple emails.
 - Calls with Ward Ling on Geronimo and Alligator Creek Watershed Training 02/20/13 and 3/19/2013.
 - Call with Lauren Young with TCEQ about multiple watersheds including Upper Guadalupe Blanco River Watershed, Petronilla Creek, Lower Nueces River, Gilleland Creek, Carters and Burton, Upper San Antonio and Lower San Antonio River.
 - Call with TRA and TXSER to discuss annual joint meeting with Riparian workshop on Friday in November 2013, through emails developed a save the date marketing piece 2/25/13.
 - TRA Board Business Emails (multiple)– discussed this new project their website to get new and partnering to coordinate annual meetings.
 - TPWD Melissa Parker, calls and emails about the project on 3/6/2013.
 - Calls with Tom Arsuffi about the project and workshops 3/6/13.
 - NRCS call on 3/7/2013 to discuss the upcoming workshops and grazing land workshop in May with Brian Hays and Blake Alldredge.
 - Multiple calls on coordinating with TPWD on workshops and program.
 - NRA emails discussing the websites and tools occurred during the quarter.
 - All of the team members have been contacted by TWRI over the quarter by emails to discuss the program, including inviting everyone to the 3/8/13 call.
 - Riparian Team Planning Conference Call all of the Riparian Team including TSSWCB, NRA, and TFS and planning team members was held on 3/8/2013. See Attached meeting minutes.
 - Meeting minutes were sent out to the Planning team for review.

16% Complete

Task 1.4: TWRI/IRNR will attend and participate in meetings, as appropriate, in order to communicate project goals, activities and accomplishments to affected parties. Such meetings may include, but are not limited to, Clean Rivers Program Basin Steering Committees, Texas Watershed Planning Short Course, Texas Watershed Coordinator Roundtables, and the TSSWCB Southeast and South Central Texas Regional Watershed Coordination Steering Committee.

The following actions have been completed during this reporting period:

- a. TWRI has initiated scheduling presentations to advertise the new program including the following scheduled events during the next quarter.

- Nikki Dictson delivered a brief presentation on the new program at the TSSWCB Southeast and South Central Texas Regional Watershed Coordination Steering Committee Meeting for March 7, 2013 in Columbus.
 - Nikki Dictson delivered a brief presentation on the new program at the GBRA 2013 Clean Rivers Program Basin Steering Committee Meeting on March 21, 2013 in Seguin.
 - Nikki Dictson has also scheduled to provide a presentation during the next quarter at the Plum Creek Watershed Partnership Meeting on May 2, 2013.
 - Nikki Dictson is also scheduled to give a 45 minute presentation at the Women of the Land Conference sponsored by the Texas Wildlife Association on Saturday, April 20, in Scurry, Texas.
- b. TWRI has developed a project fact sheet on the Riparian Program (See Attached).

16% Complete

Task 1.5: TWRI/IRNR will develop (Month 1-3), host and maintain (Months 4-36) a website to serve as a public clearinghouse for project-related information. This website will serve as a means to disseminate information to stakeholders and the general public.

The following actions have been completed during this reporting period:

- a. TWRI/IRNR has initiated the project website as a part of the Texas Riparian Website – texasriparian.org and the TWRI/IRNR trainings website will manage all of the training RSVPs/registrations. The training registration site is being developed, with the newly scheduled dates and will be available in the next quarter.
- b. These websites will be coordinated and linked to RemarkableRiparian.org website that will be managed by Sky Lewey - Nueces River Authority and will have the online educational delivery as discussed in Task 3.
- c. Texas Forest Service provided information and website links to TWRI for the Project website – now located under Resources.
- d. TexasRiparian.org website had 1602 visitors for the quarter. They website presence has continually increased each month.
- e. The TexasRiparian.org website has 26 subscribed to the website and posts.
- f. TWRI set up a twitter feed on the TexasRiparian.org website.
- g. TWRI set up a facebook and currently has 31 likes at <https://www.facebook.com/TexasRiparianAssociation>
- h. Materials continue to be developed and added to the websites weekly.

16% Complete

Task 1.5: TWRI/IRNR will develop a final report covering all project activities.

The following actions have been completed during this reporting period:

- a. No activities to report during this quarter.

0% Complete

OBJECTIVE 2: COORDINATE AND DELIVER RIPARIAN EDUCATION PROGRAMS

Deliver riparian education programs to targeted watersheds to promote healthy riparian areas, thus healthy watersheds, by increasing citizen awareness, understanding, and knowledge about the nature and function of riparian zones, their benefits, and BMPs for protecting them and minimize NPS pollution.

Task 2.1: TWRI/IRNR will employ an Extension Program Specialist who will serve as the Riparian Education Program Coordinator and will be responsible for the general oversight and coordination of all project activities and for promoting, coordinating, and delivering riparian education training events and web-based tools.

The following actions have been completed during this reporting period:

- a. An Extension Program Specialist II, Nikki Dictson has been hired to serve as the Riparian Education Program Coordinator.

100% Complete

Task 2.2: TWRI/IRNR will establish a Riparian Team to direct this synergistic project. This Riparian Team will include TWRI/IRNR, ESSM, TFS, TPWD, NRA, NRCS, TRA, and TTU-LRFS. This Riparian Team will assist with program development, marketing, and delivery. This Riparian Team will serve as the primary pool of instructors to deliver the Riparian Education Program. The Riparian Team will meet as frequently as needed, likely quarterly in year 1 and semi-annually in years 2-3.

The following actions have been completed during this reporting period:

- a. TWRI has established a Riparian Team of specialists that includes TWRI/IRNR, ESSM, TFS, TPWD, NRA, NRCS, TRA, and TTU-LRFS.
- b. The list has had the addition of Steve Jester, Guadalupe Blanco River Trust who has private funding and is coordinating riparian workshops in his basin. Please See Attached Team List.

10% Complete

Task 2.3: The Extension Program Specialist will compile the amassed body of work utilized by the various entities for riparian workshops and conferences. In conjunction with the Riparian Team, the Extension Program Specialist will select the most appropriate educational materials and resources for use in identified priority watersheds. Although existing resources and guides will be used for trainings; where possible, regional information and curriculum will be developed by the Extension Program Specialist and Riparian Team. TFS will be integral for both adapting the program and delivering it in East Texas. NRA will be integral for adapting the program and delivering it in the Texas Hill Country and South Texas and providing the Riparian Team their valuable experience of program delivery in the Nueces watershed. As possible, TWRI/IRNR and the Riparian Team will work with cities to adapt the program for delivery in urban areas as well.

The following actions have been completed during this reporting period:

- a. TWRI has been compiling presentation materials from past Extension presentations, from Dr. Jabar's workshops, NRA's workshops, Texas Riparian Associations Workshops, and Texas Parks and Wildlife Department's Workshops. These presentations are the basis and be utilized in the new workshops as appropriate.
- b. Texas Forest Service developed and submitted content for riparian workshops.
- c. Workshop agenda's from these other partners have also been gathered to assist with coming up with the program agenda. Draft Agenda is attached.
- d. Stream Assessment and Field Guides have also been gathered and are being evaluated to assist with workshop presentations.

10% Complete

Task 2.4: TWRI/IRNR will work in concert with TSSWCB, TCEQ, TPWD, NRCS, TFS, and other state and local organizations to select locations for the riparian education training events. This project will deliver riparian education programs to targeted watersheds across the state. Priority watersheds will be selected in collaboration with TSSWCB, and with input from TCEQ and others, and primarily represent those with approved WPPs or TMDLs and those developing or planning development of WPPs or TMDLs. Initial priority shall be given to Buck Creek, Cedar Creek Reservoir, Dickinson Bayou, Geronimo Creek, Hickory Creek, Lampasas River, Pecos River, Plum Creek, San Bernard River, and Upper Llano River. Other watersheds may be selected based on need and in response to collaborations with other groups and organizations, including river authorities, SWCDs, local citizen groups/watershed associations, etc. Watersheds will be selected consistent with the State's implementation of the Texas NPS Management Program. Additional watersheds will be selected based on impairment status, environmental sensitivity, and/or other priority issues. TWRI/IRNR and TSSWCB will periodically make collaborative decisions to re-prioritize and add to/remove from the list of watersheds.

The following actions have been completed during this reporting period:

- a. TWRI continues to coordinate with TSSWCB and TCEQ on the list of watersheds for workshops across the state.
- b. TWRI has began contacting watershed coordinators to determine when would be most appropriate to hold a workshop in their area.
- c. The list of initial watersheds has been shared with members of the riparian team.
- d. Plum Creek Watershed was interested in a workshop in June 2013, Upper Llano River Watershed was interested in October, Buck Creek was interested in September/October, and Geronimo and Alligator Creek Watershed was interested in one in September 2013.
- e. TWRI conducted Doodle Polls for the Plum Creek and Upper Llano River Watersheds and selected June 25, 2013 in Lockhart for Plum and October 11th for Upper Llano River Watershed in Junction.
- f. TWRI is working to instructors to select either September 10 or 17th for the Geronimo and Alligator Creek Watershed training.
- g. TWRI will continue to contact watershed coordinators to discuss the best future date for workshops in their watershed.

16% Complete

Task 2.5: The Extension Program Specialist will work to establish CEU credits for the riparian education program to encourage participation by landowners and water resource professionals.

The following actions have been completed during this reporting period:

- a. TWRI has sent program materials to potential CEU providers so that they can review the agenda and information and evaluate the program to the following:
 - a. Texas Water Resources Institute – 1 hour
 - b. Texas Floodplain Management Association – waiting for response
 - c. Texas Nutrient Management Planning Specialists – Approved for 6 hrs.
 - d. Texas Master Naturalists – waiting for response
 - e. Texas Master Gardeners – waiting for response
 - f. Texas Forestry Association – approved for up to 6 hrs approved
 - g. Society of American Foresters – approved for up to 4.5 hrs
 - h. Texas Board of Architectural Examiners does not approve courses but said we should advertise as “Acceptable for HSW” – or good for State CE hours.
 - i. TWRI will coordinate with County Extension Agents in each county for Texas Department of Agriculture – Pesticide Applicators
 - j. The program may also be used for CEUs for Professional Engineers.
- b. TWRI will continue to look into additional CEUs for the program.

25% Complete

Task 2.6: TWRI/IRNR, with assistance of the Riparian Team, will actively market riparian education trainings through news releases (AgriLife News and local media outlets), internet postings, newsletter announcements, public/conference presentations, flyers, etc., to enhance awareness and utilization. TSSWCB must review and approve all project-related content in any materials prior to distribution.

The following actions have been completed during this reporting period:

- a. Along with the Website and Facebook account, TWRI has developed a program fact sheet to advertise the upcoming program. See Attached.
- b. TWRI is developing the RSVP system online to track attendance at the workshops.
- c. TFS will publish an article on the Riparian Education Project in the Forest Stewardship Briefings newsletter in the next quarter.

8% Complete

Task 2.7: TWRI/IRNR, with assistance of the Riparian Team, will deliver 25, daylong riparian education training events in prioritized watersheds (Subtask 2.4) during the project period. Five programs are planned for delivery in year 1 and 10 each year during years 2 and 3. Certificates of completion will be provided to all participants in the trainings.

The following actions have been completed during this reporting period:

- a. TWRI has been in contact with the watershed coordinators on the list of watersheds.
- b. Three trainings have been scheduled with dates:
 - a. Plum Creek in Lockhart on June 25, 2013

- b. Geronimo and Alligator Creek in Seguin on Sept. 10 or 17th, 2013
- c. Upper Llano River on October 11th, 2013
- c. Additional trainings are looking at future months for workshops and the watershed schedule will be continually updated. See attached scheduled.

5% Complete

Task 2.8: TWRI/IRNR in collaboration with the Riparian Team will develop a series of riparian education presentations of various lengths (15/30/45/60 min.) and provide them to a variety of audiences and venues statewide such as those listed in Subtask 1.4, but also including county and multi-county Extension programs, landowner workshops, SWCD programs, and other suitable venues. Further, key elements of the program will be incorporated into presentations delivered by TFS, TWRI/IRNR, and others on the Riparian Team and delivered to a variety of audiences throughout the state.

The following actions have been completed during this reporting period:

- a. TWRI is working to schedule presentations about the program to a variety of audiences including:
 - Nikki Dictson presented a brief presentation on the new program at the TSSWCB Southeast and South Central Texas Regional Watershed Coordination Steering Committee Meeting at the March 7, 2013 in Columbus.
 - Nikki Dictson presented a brief presentation on the new program at the GBRA 2013 Clean Rivers Program Basin Steering Committee Meeting on March 21, 2013 in Seguin.
 - Nikki Dictson is scheduled to provide a 45 minute presentation at the Texas Wildlife Associations Women of the Land Conference on Saturday, April 20, 2013 at the Cedar Mountain Lodge in Scurry, TX.
 - Nikki Dictson is also scheduled to provide an hour long presentation at the Navarro County Riparian Grazing workshop on May 10th, 2013.
 - Nikki Dictson is also scheduled to provide a 15-20 minute presentation at the Plum Creek Watershed Partnership Meeting on May 2, 2013 in Lockhart.
 - TWRI will mention the Riparian Workshop at the July 30, Texas Watershed Coordinators Roundtable Meeting.
- b. TWRI will continue to work on presentations of differing lengths about the program to submit for approval.

16% Complete

Task 2.9: TWRI/IRNR will coordinate annual 2-day agency trainings on assessing proper functioning condition with the NRCS State Riparian Service Team. These programs will provide detailed training on proper functioning condition for agency personnel including TPWD, NRCS, CEAs, TSSWCB, TXDOT, TCEQ, SWCDs, GLO, TWDB, River Authorities, USFWS, and NPS personnel.

The following actions have been completed during this reporting period:

- a. TWRI discussed these professional trainings and it was well received by the planning team. Russell Castro mentioned that NRCS was in the process of reviewing and updating the materials to be able to have these in the future.
- b. NRCS also asked the planning team during the conference call to review the materials once they are ready.

10% Complete

Task 2.10: TWRI/IRNR will coordinate two statewide riparian conferences in coordination with the Texas Riparian Association, professional organizations, River Authorities, or other entities annual meetings.

The following actions have been completed during this reporting period:

- a. TWRI has initiated discussions on holding riparian talks at the annual meeting of the Texas Riparian Association and Texas Society for Ecological Restoration in November 2013.
- b. TWRI is also coordinating a Riparian Workshop for the Southwest US Stream Restoration Conference to be held in San Antonio on May 28. The conference will run May 28-30, 2013.

10% Complete

OBJECTIVE 3: CONDUCT DEVELOP WEB-BASED RIPARIAN EDUCATION PROGRAMS AND RESOURCES

To expand the reach and participation in the Riparian Education Program via web-based resources.

Task 3.1: Using non-federal funds from private foundations, the NRA will provide web-based, digital delivery of comprehensive riparian information through development of the Remarkable Riparian website. NRA will work with TWRI/IRNR and the Riparian Team to produce high quality audio-visual presentations, targeting both rural and urban audiences, for inclusion on the website. This will expand participation in riparian education programs by 1) supporting different adult learning styles and preferences, 2) providing flexible learning opportunities for interested citizens who have time and/or mobility constraints, and 3) enabling ready access to program resources statewide.

The following actions have been completed during this reporting period:

- a. NRA has updated materials and links on the remarkable.riparian.org multiple times during the quarter.

16% Complete

Task 3.2: NRA will track usage of Remarkable Riparian website and report it with each quarterly report.

The following actions have been completed during this reporting period:

- a. Visitation counter installed on remarkableriparian.org: 1,086 visits recorded this quarter.
- b. Analytical software was installed to assist in better evaluation of web page usage.

8% Complete

Task 3.3: The Nueces River Authority will also participate on Riparian Team assisting with development, marketing, and delivery of riparian landowner programs, annual conferences, and other trainings.

The following actions have been completed during this reporting period:

- a. Participated in contract kickoff meeting on 12/19/2012 and website/marketing meeting in the afternoon on 12/19/2012.
- b. NRA discussed strategies for development, marketing and delivery with TWRI during multiple calls and through correspondence during the quarter.

8% Complete

OBJECTIVE 4: EVALUATE THE EFFECTIVENESS OF THE RIPARIAN EDUCATION TRAININGS AND WEB-BASED RESOURCES

To measure both knowledge and behavior changes of individuals participating in the program.

Task 4.1: TWRI/IRNR will conduct pre- and post-training evaluations (for both group instruction and web-based trainings) to assess increased knowledge of participants on the nature and function of riparian zones, their benefits, and BMPs for protecting them and minimize NPS pollution; to evaluate participant satisfaction with the program; and to evaluate participant's intentions to change their behavior as a result of the program. Additionally, TWRI/IRNR will deliver a follow-up assessment via email (6-month follow-up for both watershed-based and computer-based trainings) to ascertain behavior changes actually adopted by participants.

The following actions have been completed during this reporting period:

- a. TWRI has started compiling other example pre- and post-training evaluations to model these assessments after for the Riparian Trainings.
- b. Examples from TAMU Rangeland Extension Water Programs, Texas Watershed Stewards, and TWRI's training programs have been compiled.
- c. TWRI has developed a draft set of questions based on the materials that are being reviewed internally and will be sent to TSSWCB early next quarter.
- d. TWRI attended an training on the turning point system to be able to survey using clickers and immediately obtain the results in a database on 2/25/13.

16% Complete

Task 4.2: TWRI/IRNR will analyze results obtained from the pre-/post-tests and 6-month follow-up assessment using descriptive, correlational, and analysis of variances statistical procedures. Results will be used to periodically evaluate and modify riparian education program materials and incorporated into the final report.

The following actions have been completed during this reporting period:

- a. Nothing to report during this quarter.

0% Complete

Expected Work for the Next Quarter:

- TWRI will continue to work on drafts of educational materials for review of the team.
- TWRI and NRA will continue to develop the websites for the program and the online educational tools.
- TWRI will complete the draft evaluations for the program internally and submit for TSSWCB review and then riparian planning team.
- TWRI will continue conducting presentations for a variety of audiences and specifically for the upcoming scheduled meetings in April and May.
- TWRI will continue contact with watershed coordinators to continue scheduling workshops in those watersheds.
- TWRI will schedule a Riparian Planning Team Meeting to discuss and upcoming workshops.

Appendix A: Riparian Planning Team Members

Appendix B: Riparian Team Conference Call Summary

Appendix C: Initial Schedule of Watersheds for the Program

Appendix D: Project Fact Sheet

Appendix E: Draft Workshop Agenda

Appendix A: Riparian Planning Team Members

Riparian Team				
First	Last	Org.	Phone	Email
Blake	Alldredge	AgriLife Extension	979.845.0916	balldredge@tamu.edu
Kevin	Anderson	TRA/Austin	512.972.1960	kevin.anderson@ci.austin.tx.us
Tom	Arsuffi	Texas Tech - LRFS	512-407-9357	tom.arsuffi@ttu.edu
Russell	Castro	USDA NRCS	254-742-9982	russell.castro@tx.usda.gov
Nikki	Dictson	TAES	979-458-5915	n-dictson@tamu.edu
Gary	Garrett	TPWD	830-866-3356 ext212	Gary.Garrett@tpwd.state.tx.us
Wesley	Gibson	TSSWCB	254-773-2250, 240	wgibson@tsswcb.texas.gov
Thom	Hardy	MCWE, Texas State University	512-245-6729	Thom.Hardy@txstate.edu
Fouad	Jabar	AgriLife Extension	972-952-9672	f-jabar@tamu.edu
Steve	Jester	Guadalupe Blanco River Trust	830-379-5822	sjester@gbtrust.org
Sky	Lewey	NRA	830-278-6810	slewey@nueces-ra.org
Georgianne	Moore	TAMU ESSM	979.845.3765	gwmoore@tamu.edu
Steve	Nelle		325.944.0147	nelleangelo@suddenlink.net
Melissa	Parker	TPWD	512-754-6844 ext.235	melissa.parker@tpwd.state.tx.us
Anne	Rogers	TRA	512-459-4471	anrogers1111@gmail.com
Hughes	Simpson	TFS	936-639-8180	HSimpson@tfs.tamu.edu
Kevin	Wagner	TWRI	979-845-2649	klwagner@ag.tamu.edu
Peter	McKone	TCU/Atkins	817-946-7379	peter.mckone@atkinglobal.com
Bill	Carter	TCEQ	512-239-6771	bill.carter@tceq.texas.gov

Appendix B: Riparian Team Conference Call Summary

Riparian Team Planning Conference Call - Summary
March 8th, 2013

On the call: Kevin Wagner, Georgianne Moore, Blake Alldredge, Tom Arsuffi, Russell Castro, Wesley Gibson, Sky Lewey, Steve Nelle, Melissa Parker, Ann Rogers, Hughes Simpson, and Nikki Dictson.

Topics Discussed during the call:

Website: <http://texasriparian.org/> and Facebook

- Additional content – **please send me any content to be added including resources, links, photos.**
- Case Studies
- Photo library: need to look at capacity on website or use flickr, picasa, etc. Need to have caption information for photos and categorize them.
- Resources (Sky Lewey discussed the online digital tools including 8 short lessons on principles that she is creating and her remarkable riparian website).
- links to all of your programs – Logos (NRCS is looking into approval process for us of Logo, others will email me their logos).

Russell, Steve, Ken and Ricky were key members of the Texas Riparian Team for NRCS and they are starting to look at re-energizing themselves to develop publications, etc. NRCS has additional expertise that we can connect with including an Aquatic Specialist and Hydrologist- Mr. Gurule that is hosting a webinar and Rich Weber, out of Greensboro, NC is conducting a stream ecology webinar.

- Steve Nelle commented that there are some documents, publications, and links on the National Riparian Service Team that we should link to from our site.
- Blake Alldredge commented that wetransfer.com is a usefull way to send large files and pictures to each other that is free.
- Steve Nelle started a discussion on including links and information on Aquatic Invertebrates and how to obtain or purchase information about them.
- Sky Lewey mentioned the Field Guide for the Nueces Basin – It is already linked on our website and hers. She is actively seeking funding to turn the field guide with plant photos into an online tool that would be searchable on the web.
- Georgianne asked how do we attract on the front end as well as how will people find and use our resources? We discussed using multiple strategies starting with everyone helping to get the word out through their networks, social media, newspapers, email lists, etc.

Russell Castro with NRCS said that they are planning on field testing the PFC / Stream Visual Assessment Protocol for Texas that will be provided for professionals to make it a better tool and that our group should participate in the field testing.

Draft Agenda (Attached) /Presentations

- Steve Nelle discussed that a lot of the questions that he receives from attendees at the workshops are related to “Where do we go from Here?”
- Nikki mentioned that is where the resources and future events like the annual meeting come into play.

Steve Nelle mentioned there is a need for a 201 or advanced type workshop including on one riparian grazing techniques for landowners.

Russell Castro informed the group of several upcoming workshops sponsored through GLCI and that one would be on Grazing in the Trinity Basin in May. (Currently scheduled for May 10, 2013)

Discussion on the need for presentations that cover Urban issues and Bayou/Tidal coastal watersheds to be included at the workshop and who would be someone that could cover Bayou/Tidal riparian issues.

Coastal/tidal

- The principals are the same
- Need local system pictures in presentations
- Plants can easily be learned
- Hydrology of the flood plains gets wide.
- Coastal Hydrology instructor that could speak at the level of landowners: contact estuary research center, Harte Research (Larry McKinney), USGS, Armand Bayou, A&M Corpus Christie

Urban

- Nelle has conducted workshops in downtown San Antonio neighborhood riparian areas but again need urban stream pictures
- National Riparian Service Team has links to an Urban Riparian Education Program in Alberta, Canada, that discusses ditches and Cows and Creeks Website that has some good information.
- Need to engage grounds maintenance people
- Melissa Parker mentioned interpretive information for public on mowing, etc. ‘
- Austin Water Policy, Austin grow zone/ no mow zone
- TRA and Jessica Wilson have been talking about a urban riparian workshop

Continuing Education Credits – Nikki is working on acquiring CEU approval for the workshop and asked if there were any others that should be looked into.

- Sky Lewey started a discussion on creating our own certification for Riparian Managers. The riparian certification would mean that the service provider is informed on Riparian Areas when providing a service such as land clearing, road building, livestock.
- Texas A&M Forest Service has a logging model for this and Melissa Parker, Hughes Simpson, and Nikki Dictson will look into this and provide some more information to the group and to TRA.

Sky Lewey started a discussion on the Lane’s Balance Table Top display and if there were funds to build several more for use.

Watershed Schedule (updated version is attached)

- Instructors
- Calendars (Sent out doodle polls on workshops in Lockhart and Junction for instructors to respond to set dates) this will be an ongoing evolving process.

- Travel – there are funds for instructors travel.

Annual Meeting – TRA and TXSER are working on a Joint Meeting in Junction on November 1-3? The meeting was discussed as well as the timing issues of Halloween the night before and that it is opening weekend of deer season.

Discussed Advertising of Workshops and Annual Meetings through multiple venues.

I have attached a map of Watershed Protection Plan and TMDL watersheds, the draft spreadsheet of potential schedule/order, and the Draft General Agenda.

Appendix C: Initial Schedule of Watersheds for the Program

Texas Riparian and Stream Ecosystem Education Program

Watershed	Potential Month	Year	Watershed Coordinators	Affiliation	Counties
Plum Creek Watershed	June 23th	2013	Nick Dornak	PCWP	Caldwell, Hays, and Travis Counties
Upper Llano River watershed	October 11, 2013	2013	Tom Arsuffi	Texas Tech LRFS	Edwards, Kerr, Kimble, Menard, Real, and Sutton Counties
Geronimo Creek Watershed	Sept 10 or 17	2013	Ward Ling	AgriLife Extension	Guadalupe and Comal Counties
Buck Creek Watershed	Sept/Oct 13	2013	Lucas Gregory	TWRI	Childress, Collingsworth and Donley Counties
Carters Creek	Spring 2014	2013	Lucas Gregory	TWRI	Brazos County
Lampasas River Watershed	Spring 2014	2014	Lisa Prcin	AgriLife Research	Bell, Burnet, Coryell, Hamilton, Lampasas, Mills, and Williamson Counties
Attoyac Bayou	Early 2014	2014	Lucas Gregory	TWRI	Rusk, Nacogdoches, San Augustine and Shelby Counties
Pecos River Watershed	Early 2014	2013	Lucas Gregory	TWRI	Crane, Crockett, Pecos, Reeves, Terrell, Upton, and Ward Counties
Big Cypress Creek Basin - LOP	mid 2014?	2014	Thomas/Dictson/Gregory	NETMWD/TWRI	Morris, Upshur, Cass, Marion, and Harrison
Leon River	late 2013/early 2014	2014	Dickie Clary	Hamilton County	Hamilton, Comanche and Coryell Counties
Cedar Creek Watershed	Discussing dates		Clint Wolfe	AgriLife Research	Henderson, Kaufman, Rockwall and Van Zandt Counties
Trinity River	Discussing dates		Blake Alldredge	AgriLife Extension	Middle Trinity Counties
Gilleland Creek	Discussing dates		Lauren Young	TCEQ	Travis County
Guadalupe River Above Canyon Lake	Discussing dates in 2014		Tara Bushnoe/Lauren Young	UGRA/TCEQ	Kerr, Kendall, and Comal Counties
Hickory Creek			David Hunter/Banks	City of Denton	Denton County
San Bernard River Watershed			Aubin Phillips	H-GAC	Austin, Colorado, Wharton, Fort Bend, and Brazoria Counties
Upper San Antonio River			Steve Lusk	SARA	Bexar County
Petronilla Creek			Lauren Young	TCEQ	Kleberg and Nueces Counties
Concho River			Chuck Brown	UCRA	Tom Green County
Bastrop Bayou			Justin Bower	HGAC	Brazoria County
Lower Nueces			Rocky Freund	Nueces River Authority	Jim Wells, Nueces, and San Patricio Counties
Cedar Bayou			Justin Bower	H-GAC	Harris and Chambers Counties
Arroyo Colorado			Jaime Flores	TWRI	Cameron, Hidalgo, and Willacy Counties
Dickinson Bayou			Charriss York	AgriLife Extension	Brazoria and Galveston Counties
Double Bayou			Stephanie Glenn	Houston Advance Research Center	Chambers County

	Tentative Schedule
	Tentative Month
	TBD
	To Be Contacted

Appendix D: Project Fact Sheet

riparian and stream ecosystem education program

texasriparian.org

Texas has more than 200,000 miles of streams and riparian areas—the green vegetation zones along streams, rivers and lakes—that provide great economic, social, cultural and environmental value to the state. These ecosystems play an important part in the water issues that face Texans today and in the future.

Management of watersheds, riparian areas and streams directly influences water quality and quantity, peak and base flow rates of streams and rivers, and recharge to aquifers and lakes. For example, how much rainfall runs off and how fast it runs off the land depend on the amount and type of vegetation, soil type, slope, intensity and duration of rainfall and land management. Properly functioning riparian areas are highly beneficial buffer zones that provide recreation, fish and wildlife habitat, increased water supply and improved water quality by filtering debris and pollution. A healthy watershed maintains high quality water for aquatic ecosystems, downstream users and coastal wetlands and estuaries.

Riparian and stream ecosystem degradation is common in Texas rural and municipal landscapes due to natural and human-induced disturbances. Increases in human population along with industrial, commercial and residential development place heavy demands on stream corridors. In many cases, riparian areas are purposely degraded or channelized to allow stormwater to move quickly downstream to reduce local flooding. These degraded and/or

channelized riparian areas reduce the recharge of groundwater and base flow and increase the frequency of flooding. Excessive flows from poor management upstream can degrade otherwise healthy riparian zones downstream. Many cities have found that improving creek and floodplain protection is needed to prevent unsustainable public expense to maintain drainage infrastructure.

It is important to monitor the health of streams to protect, maintain and restore healthy riparian and stream ecosystems in Texas. Proper management, protection and restoration of riparian areas will decrease bacteria, nutrient and sediment loadings to water bodies; lower instream temperatures; improve dissolved oxygen levels; and stabilize banks, reducing erosion and protecting ownership boundaries and land values. Healthy riparian areas will also have fewer invasions of exotic undesirable riparian species, improved aquatic habitat and improved fish and aquatic communities.

Riparian education programs are needed to improve the management of these sensitive and vital ecosystems. Through the *Texas Riparian and Stream Ecosystem*



texas **water** resources institute

twri.tamu.edu



riparian and stream ecosystem education program

Education Program, partners and staff will deliver educational workshops about the nature and function of riparian zones and vegetation. The workshops will also cover local technical resources and best management practices (BMPs). Through education, landowners and other citizens can improve their management of riparian and stream ecosystems, which will reduce nonpoint source pollution (NPS) and provide tremendous ecosystem service benefits and direct economic benefits to communities.

Objectives

- Promote healthy watersheds and improve water quality through riparian and stream ecosystem education programs with a focus on priority watersheds
- Increase citizen awareness, understanding and knowledge of the nature and function of riparian zones, their benefits and BMPs to protect them and minimize NPS pollution
- Enhance interactive learning opportunities for riparian education across the state and establish a larger, more informed citizen base working to improve and protect local riparian and stream ecosystems
- Connect landowners with local technical and financial resources to improve management and promote healthy watersheds and riparian areas on their land

Collaborators

- Texas Water Resources Institute
- Texas State Soil and Water Conservation Board
- Texas Riparian Association
- Texas A&M Forest Service
- Texas Parks and Wildlife Department
- USDA Natural Resources Conservation Service
- Nueces River Authority
- Texas A&M AgriLife Research, Ecosystem Science and Management Department
- Texas Tech University Llano River Field Station

Funding Agencies

- Texas State Soil and Water Conservation Board
- U.S. Environmental Protection Agency



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Appendix E: Draft Workshop Agenda

Texas Riparian & Stream Ecosystem



Draft General Agenda for Workshops

- 8:00 Meeting Registration
- 8:30 Workshop Introductions
- 8:35 Program Overview, Watershed Management and Water Quality
- Nikki Dictson, Texas Water Resources Institute
- 9:00 Riparian and Watershed Management Principles
- Steve Nelle, Retired USDA Natural Resources Conservation Service
- 9:45 Stream Processes and Cowboy Hydrology
- NRCS or TPWD staff depending on location
- 10:30 Break
- 10:45 Riparian Vegetation and Hindrances to Healthy Riparian Areas
- Steve Nelle, Retired NRCS
- 11:30 Management Practices and Local Resources
- Nikki Dictson, Texas Water Resources Institute
- 12:00 Lunch
- 12:15 Lunch time Presentation - Riparian Forestry BMPs:
- Hughes Simpson, Texas A&M Forest Service
- 1:15 Questions and Complete Post Survey
- 1:30 Trip to the River for Stream Walk (If large group split into 2 or more groups)
- Lane's Balance Demonstration Activity
 - TPWD presentation on habitat: Local TPWD Biologist
 - Soil & Water Conservation District Financial Incentive Program
 - Feral Hog Education Program: Texas A&M Agrilife Extension
 - Photo Monitoring of stream locations: Dictson, TWRI
- 4:00 Wrap up and Head for Home!

<http://texasriparian.org/> and <https://www.facebook.com/TexasRiparianAssociation>

