Texas Water Resources Institute
make every drop count

Delivery of a Watershed Coordinator Development Program
Texas State Soil and Water Conservation Board
Clean Water Act §319(h) Nonpoint Source Grant Program
FY 2013 Workplan 13-04

Quarter no. 1 From 07/01/14 Through 9/30/14

I. Abstract

This quarter has focused on scheduling trainings, conducting the Texas Watershed Coordinators Roundtable, Applied Environmental Statistics Course, Getting in Step Training and Stakeholder Facilitation Trainings, advertising and registration for the Social Marketing Training in October, and planning for the January Watershed Coordinators Roundtable. Work on updating the website http://watershedplanning.tamu.edu/ has also continued to occur. Information continues to be posted on the website and through the watershed coordinators listserv.

II. Overall Progress and Results by Objective and Task

TASK 1: PROJECT ADMINISTRATION

To effectively administer, coordinate and monitor all work performed under this project including technical and financial supervision and preparation of status reports. To maintain web-based watershed planning resources for Texas watershed coordinators.

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 this last quarter was submitted by 7/13/14.

32% Complete

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

The following actions have been completed during this reporting period:

a. The contract was signed and the project period began 10/1/13 through 9/30/16.
b. The accounts were set up at TAMU on November 14, 2013.
c. TWRI/IRNR and SRS will submit the reimbursement forms at the end of this quarter.

32% Complete

Task 1.3: TWRI will host and maintain an Internet website for information sharing and use by watershed coordinators (http://watershedplanning.tamu.edu/). Information presented through the website will include:

- Project reports
- Short course, workshop, and roundtable agendas and participant lists
- Roundtable presentations generated, and roundtable agendas and summaries

- Schedule of upcoming programs
- Resources for Watershed Planning and Implementation
- Links to other training opportunities
- Links to EPA tools for Watershed Planning

The following actions have been completed during this reporting period:

a. The Texas Watershed Planning Website can be found at http://watershedplanning.tamu.edu/
b. TWRI has been reviewing and updating links to reports and resources as well as materials on the website.
c. The applied Environmental Statistics Course, Getting in Step, Stakeholder Facilitation and Watershed Coordinators Roundtable have all been updated with materials on the website.
d. The registration or RSVPs systems have been included on the http://watereducation.tamu.edu which has had 792 unique visitors and 2,796 page views.
e. The trainings have been advertised on the website and through the listserv.
f. Press Releases have been developed for the trainings and are attached.
g. The website includes the past QPRs, reports, and training materials
h. The website includes links to other training opportunities
i. The website includes the links to EPA tools for Watershed Planning
j. The website over this quarter had 431 visits with 307 unique visitors and 1006 Page views.

32% Complete

Task 1.4: TWRI 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 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 hosted a Coordination meeting/conference call with project partners on September 3, 2014 where the project schedule, deliverables, and other requirements were discussed.
b. The Watershed Coordinators Roundtable was conducted in Waco on July 31st, 2014.
c. The list of action items is included at the end of this report for the next quarter.

24% Complete

Task 1.5: TWRI will develop a final report that summarizes activities completed, conclusions reached during the project, and the extent to which project goals and measures of success have been achieved.

The following actions have been completed during this reporting period:

a. Nothing to report this quarter.

0% Complete

TASK 2: Professional Training, Roundtable, and Watershed Planning Short Course Coordination

Provide training, coordination, and professional development for watershed planners and coordinators throughout Texas and across the nation to ensure consistent, high quality WPPs are developed, implemented, and water quality improvements are achieved and sustained.

Subtask 2.1 TWRI will coordinate with Texas A&M University faculty, Tetra Tech staff, and others to provide professional development and training for water resource professionals and watershed coordinators in Texas. Over the project duration, a minimum of ten professional training programs are planned on watershed modeling, stakeholder facilitation, watershed outreach, and other tools for watershed plan development and implementation (i.e. 3-4 trainings/year). It is expected that each course will provide training for at least 15-20 water resource professionals for a total of 150-200 participants. As possible, these will be held in conjunction with the Watershed Coordinator Roundtables described below. A minimum of 1 of each of the following training programs will be delivered:

- *Introduction to Modeling – 1 event*
- *Watershed modeling using LDC (Load Duration Curves) and SELECT (Spatially Explicit Load Enrichment Calculation Tool) – 1 event*
- *Stakeholder facilitation – 2 events*
- *Watershed outreach using "Getting in Step" – 1 event*
- *Practical Environmental Statistics – 1 event*
- *Fundamentals of Developing a Water Quality Monitoring Plan – 2 events*
- *Social Marketing Training – 2 events*

As funding allows, TWRI will work closely with TSSWCB and the Project Team, to ensure that the most appropriate and needed trainings are offered for a second time that best meet the needs of the State and the watershed coordinators. Additional trainings will be considered based on a Project Team and Coordinator recommendations.

The following actions have been completed during this reporting period:

a. TWRI has developed an initial draft schedule of trainings and roundtables. See Attached.
b. TWRI has scheduled, advertised and conducted the Applied Environmental Statistics Course for August 25-29, 2014.
c. TWRI coordinated with instructor Amy Hays to plan and schedule a two part Social Marketing Training in Houston with HGAC in October 2014. The brochure, registration sheet, Agenda, and sign in sheet are attached.
d. Advertised and conducted Getting in Step and Stakeholder Facilitation in Austin during September 29 and 30, 2014. Agenda, materials and sign in sheets are attached.

50% Complete

Subtask 2.2 TWRI will continue to coordinate with the TSSWCB, TCEQ, and EPA to organize and facilitate a total of six (6) semi-annual Watershed Coordinator Roundtables. These face-to-face Roundtables will build upon the fundamental knowledge conveyed through the WPSC and establish a continuing dialogue between watershed coordinators in order to facilitate interactive solutions to common issues being faced by watershed coordinators statewide. Periodically, TWRI, in conjunction with the Project Team will review the continued need for semi-annual Roundtables as well as their specific timing. As such, these Roundtables are tentatively planned to be held in January and July at various locations around the state.

The following actions have been completed during this reporting period:

a. TWRI has developed materials that were reviewed by TSSWCB and the Planning team for the July 31, 2014 Watershed Coordinators Roundtable to be held in Waco.
b. The materials and online RSVP were set up on the website and there were 61 attendees.
c. The agenda, advertising, and materials are attached.
d. TWRI is determining potential dates in San Antonio that the SAWS facility is available for the Roundtable to be held in January 2015.

33% Complete

Subtask 2.3 TWRI will continue to coordinate and offer Watershed Planning Short Courses (WPSC). TWRI, with assistance from the Project Team, will identify key speakers for the course, make arrangements for facilities, advertise the WPSC, conduct registration, and facilitate the delivery of a minimum of one Texas WPSC to water resource professionals in Texas, as well as other states. The WPSC agenda and speakers will be modified to better meet the needs of watershed coordinators based on the past course evaluation results (See Subtask 2.4).

The following actions have been completed during this reporting period:

a. TWRI has contacted the Mayan Ranch to see what weeks were available as potential weeks for the Short Course in 2015.
b. TWRI discussed some potential changes to the Short Course Agenda and presentations at the May 20, 2014 and March 2014 Planning meetings.

10% Complete

Subtask 2.4 TWRI will oversee the administration of evaluations to gauge the knowledge gained, how effective the program was for each participant, and get input on future programs.

The following actions have been completed during this reporting period:

a. Evaluations have been summarized for the Watershed Coordinators Roundtable in July 2014.
b. Evaluations have been summarized for the Applied Environmental Stats Course in August 2014.
c. Evaluations have been summarized for the Getting in Step Course in September 2014.
d. Evaluations have been summarized for the Stakeholder Facilitation Course in September 2014.

50% Complete

Expected Work for the Next Quarter:

- TWRI will continue to work with TSSWCB to schedule trainings and roundtables.
- TWRI will work to coordinate and conduct the third watershed coordinators roundtable in January 2015 in San Antonio.
- TWRI will continue to coordinate and conduct the Second Social Marketing Course in October 2014.
- TWRI will work to schedule and coordinate the appropriate trainings for 2015.
- TWRI will continue to update the website with relevant materials, trainings, and links.
- TWRI will advertise upcoming scheduled trainings.

Appendices

Appendix A: Tentative Schedule of Trainings

Appendix B: Materials for July Watershed Coordinators Roundtable

Appendix C: Materials Applied Environmental Statistics Course

Appendix D: Materials for Getting In Step Course

Appendix E: Materials for Stakeholder Facilitation Course

Appendix F: Materials for Social Marketing Course in October 2014

Texas Watershed Coordinator Roundtable

July 31, 2014
9:30 a.m. — 3:30 p.m.

Texas Farm Bureau Conference Center
7420 Fish Pond Rd, Waco, TX

9:30 – 9:45 a.m.	Welcome & Introductions	Kevin Wagner
9:45 – 10:30 a.m.	Panel Discussion on Clean Water Act §319(h) NPS Grant Program	
	• EPA Region 6	Henry Brewer
	• TCEQ	Kyle Girten
	• TSSWCB	TJ Helton
10:30 – 11:15 a.m.	Discussion of outcomes from March 2014 Workshop: *Improving Watershed Program Efficiency & Success*	Kevin Wagner
11:15 – 11:45 a.m.	Identifying OSSFs in your watershed	Lucas Gregory
11:45 – 12:30 p.m.	Catered networking lunch (or bring your own) [RSVP required]	
12:30 – 1:00 p.m.	Review of Bacterial Source Tracking in Texas	Kevin Wagner
1:00 – 1:30 p.m.	The 2014 Farm Bill and its impact on NRCS programs	Kyle Wright
1:30 – 1:50 p.m.	Texas Forest Information Portal	Hughes Simpson
1:50 – 2:10 p.m.	Feral Hog Educational Programs	Mark Tyson
2:10 – 2:30 p.m.	Plum Creek Feral Hog Program	Nick Dornak
2:30 – 3:00 p.m.	Arroyo Dashboard	Allen Berthold
3:00 – 3:30 p.m.	Wrap-Up	

- Upcoming Trainings:
  - Applied Environmental Statistics (Full) August 25-29, 2014
  - Short Course TBD 2015
  - Introduction to Modeling TBD 2015
  - Fundamentals of Developing a Water Quality Monitoring Plan TBD 2015
- Next Roundtable
  - Date: January 2015

Texas Watershed Coordinator Roundtable Participants

July 31, 2014
Waco

#	First	Last	Organization	Email
1	Tom	Arsuffi	TTU Llano River Field Station	tom.arsuffi@ttu.edu
2	Barbara	Bellows	Environmental Educator	barb_bellows@att.net
3	Allen	Berthold	Texas Water Resources Institute	taberthold@ag.tamu.edu
4	Mike	Bira	US EPA Region 6	bira.mike@epa.gov
5	Diane	Boellstroff	Texas A&M AgriLife Extension Service	dboellstroff@tamu.edu
6	Charlene	Bohanon	Galveston Bay Foundation	cbohanon@galvbay.org
7	Justin	Bower	H-GAC	justin.bower@h-gac.com
8	Henry	Brewer	U.S. EPA Region 6	brewer.henry@epa.gov
9	Jennifer	Bronson War	TPWD	jennifer.bronson-warren@tpwd.texas.gov
10	Matt	Brown	TWRI	matthew.brown@ag.tamu.edu
11	Kalyn	Brymer	Texas Institute for Applied Environmental Research	brymer@tiaer.tarleton.edu
12	Bill	Carter	Texas Commission on Environmental Quality	bill.carter@tceq.texas.gov
13	Jody	Cason	Texas A&M AgriLife Research	jody.cason@tamu.edu
14	Tim	Cawthon	TCEQ	tim.cawthon@tceq.texas.gov
15	Dickie	Clary	Hamilton County	dickie.clary@ci.hamilton.tx.us
16	Mitch	Conine	TSSWCB	mconine@tsswcb.texas.gov
17	Philip	Crocker	EPA Region 6	crocker.philip@epa.gov
18	Nikki	Dictson	TWRI	n-dictson@tamu.edu
19	TJ	Dybala	USDA-NRCS	tdybala@brc.tamus.edu
20	Clare	Entwistle	Texas Water Resources Institute	Clare.Entwistle@ag.tamu.edu
21	Jaime	Flores	Texas Water Resources Institute	jjflores@ag.tamu.edu
22	Joan	Flowers	Jacobs Engineering	joan.flowers@jacobs.com
23	Brian	Fontenot	EPA	fontenot.brian@epa.gov
24	Rocky	Freund	Nueces River Authority	rfreund@nueces-ra.org
25	Wesley	Gibson	TSSWCB	wgibson@tsswcb.texas.gov
26	Kyle	Girten	TCEQ	kyle.girten@tceq.texas.gov
27	Lucas	Gregory	TWRI	lfgregory@ag.tamu.edu
28	Ashley	Gregory	Texas Water Resources Institute	ahgregory@ag.tamu.edu
29	Lori	Hazel	Texas A&M Forest Service	lhazel@tfs.tamu.edu
30	Kirstin	Hein	Texas Water Resources Institute	KHein@ag.tamu.edu
31	TJ	Helton	TSSWCB	TJ Helton (thelton@tsswcb.state.tx.us)
32	Tina	Hendon	Tarrant Regional Water District	tina.hendon@trwd.com
33	Mari	Hrebik	USDA-NRCS	mhrebik@brc.tamus.edu
34	Andy	James	TAMU-IRNR	andy.james@tamu.edu

61 Participant s

Texas Watershed Coordinator Roundtable Participants

July 31, 2014
Waco

35	Danielle	Kalisek	TWRI	dmkalisek@tamu.edu
36	Brian	Koch	TSSWCB	bkoch@tsswcb.texas.gov
37	Brad	Lamb	US EPA Region 6	lamb.brad@epa.gov
38	Chris	Lester	USDA-NRCS	clester@brc.tamus.edu
39	Jana	Lloyd	TSSWCB	jlloyd@tsswcb.texas.gov
40	Debbie	Magin	Guadalupe-Blanco River Authority	dmagin@gbra.org
41	Liza	Marshall	TSSWCB	lmarshall@tsswcb.texas.gov
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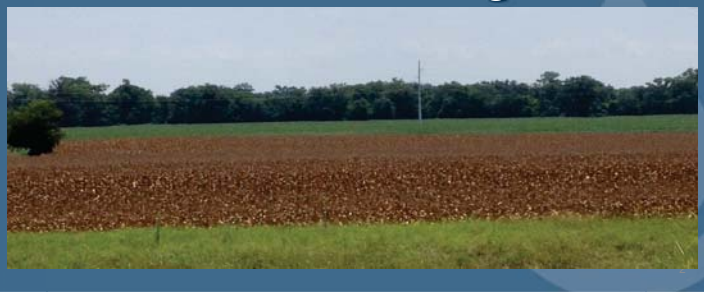
43	Aubin	Philips	H-GAC	aubin.phillips@h-gac.com
44	Kelsie	Ponder	EPA Region Six	Ponder.Kelsie@epa.gov
45	Polly	Porter	TCEQ Small Buisness& Local Gov't. Assistance	polly.porter@tceq.texas.gov
46	Lisa	Prcin	Texas AgriLife Research	lprcin@brc.tamus.edu
47	Kristina	Ramirez	City of Killeen - Environmental Services	kramirez@killeentexas.gov
48	Galen	Roberts	Texas A&M AgriLife Extension	groberts@ag.tamu.edu
49	Anne	Rogers	TPWD	anne.rogers@tpwd.texas.gov
50	Lindsay	Sansom	Texas A&M University	lsansom84@tamu.edu
51	Linda	Shead	Double Bayou Watershed Partnership	linda.shead@sheadconservation.com
52	Hughes	Simpson	Texas A&M Forest Service	hsimpson@tfs.tamu.edu
53	Anthony	Suttice	USEPA	suttice.anthony@epa.gov
54	Leah	Taylor	Texas Institute for Applied Environmental Research	ltaylor@tiaer.tarleton.edu
55	Mark	Tyson	Texas A&M AgriLife Extension WFSC	mark.tyson@ag.tamu.edu
56	Mike	Urrutia	Guadalupe-Blanco River Authority	murrutia@gbra.org
57	Jennifer	Vuitel	North Central Texas Council of Governments	jvuitel@nctcog.org
58	Kevin	Wagner	TWRI	Klwagner@ag.tamu.edu
59	Jenna	Walker	City of Waco Water Utility	jennaw@ci.waco.tx.us
60	Laura	Whiteside	Sand County Foundation	lwhiteside@sandcounty.net
61	Kyle	Wright	USDA-NRCS	kyle.wright@tx.usda.gov

The 2014 Farm Bill

Texas Watershed Coordinators Roundtable
Waco, Texas
July 31, 2014

Differences Between the 2008 and 2014 Farm Bill Conservation Programs



Agricultural Act of 2014

- Reauthorizes Programs from the 2008 Farm Bill until 2018
  - Environmental Quality Incentives Program (EQIP)
  - Conservation Stewardship Program (CStP)
  - Healthy Forest Reserve Program (HFRP)
  - Conservation Innovation Grants (CIG)

Agricultural Act of 2014

- Repealed programs from the 2008 Farm Bill
  - Grassland Reserve Program (GRP)
  - Wetland Reserve Program (WRP)
  - Farm and Ranch Lands Protection Program (FRPP)
  - Cooperative Conservation Partnership Initiative (CCPI)
  - Agricultural Water Enhancement Program (AWEP)
  - Wildlife Habitat Incentives Program (WHIP

Agricultural Act of 2014

- New Programs Authorized
  - Agricultural Conservation Easement Program (ACEP)
    - Includes a Wetland Reserve Easement Component (WRE)
    - Includes an Agricultural Land Easement Component (ALE)

Agricultural Act of 2014

- New Programs Authorized, cont.
  - Regional Conservation Partnership Program
    - Combines similar programs from former Farm Bills
    - Allows for a competitive process for partnership agreements to address large landscape resource concerns
    - Includes a Partnership component
    - Secretary will select up to 8 critical conservation areas
    - Allows Secretary to waive AGI if needed to fulfill purposes of the program
    - No funding may be used to cover partner administrative costs

Agricultural Act of 2014

- New Programs Authorized, cont.
  Voluntary Public Access and Wildlife Habitat Incentive Program
  - New program to NRCS from FSA
  - Will be funded via Request for Proposals
  - Additional information to follow

2014 Farm Bill Conservation Programs

Agricultural Act of 2014 Conservation Programs

Environmental Quality Incentives Program (EQIP)

EQIP offers financial and technical assistance to agriculture producers to promote agriculture production and environmental quality as compatible goals.

Agricultural Act of 2014
Environmental Quality Incentives Program

- At least 5% of funds go to practices benefitting wildlife
- Retains requirement that 60% of funding address livestock resource concerns
- Raises payment limit from $300,000 to $450,000; does not provide any waiver authority
- Reduces AGI eligibility to $900,000 for all income

Agricultural Act of 2014
Environmental Quality Incentives Program

- Maintained 10 year contract maximum
- Veterans eligible for increased payment rate as historically underserved producers
- Authorized funding for EQIP
  - FY 2014 – $1.35 B
  - FY 2015 – $1.6 B
  - FY 2016 – $1.65 B
  - FY 2017 – $1.65 B
  - FY 2018 - $1.75 B

Regional Conservation Partnership Program (RCPP)

- New program designed to be an all encompassing program focused project.
- Uses EQIP, CSP, and ACEP WRE and ACEP ALE programs
- Addresses a multitude of resource concerns

Agricultural Act of 2014

Regional Conservation Partnership Program

RCPP is a new regional program that:

- Furthers the conservation, restoration, and sustainable use of soil, water, wildlife on a regional scale
- Encourages partners to cooperate with producers
- Provides assistance through:
  - Partnership agreements
  - Program contracts or easement agreements
- Combines and replaces the purposes and functions of:
  - Agricultural Water Enhancement Program (AWEP)
  - Chesapeake Bay Watershed Program (CBWP)
  - Cooperative Conservation Partnership Initiative (CCPI)
  - Great Lakes Basin Program for Erosion and Sediment Control

Conservation Stewardship Program (CSP)

- CSP pays farmers who are improving conservation treatment on their working lands.
- Encourages the continuation of practices that benefit soil, water and air resources.
- A person or legal entity cannot receive CSP payments exceeding $200,000 during any five-year period.

Agricultural Act of 2014

Conservation Stewardship Program

- Reduces enrollment cap to 10 million acres annually from 12.7 million acres
- Allows for expiring contracts to be renewed
- Eliminates the 10% cap for forest land
- Increases locally identified priority resource concerns to at least 5 (soil erosion, water quality, etc.)
- CMT or other means will be used to rank applications

ACEP – Agricultural Land Easement (ALE)

- Helps landowners restore and protect grassland, including rangeland and pastureland, and certain other lands, while maintaining the areas as grazing lands.
- Program emphasis is on support for grazing operations, plant and animal biodiversity, and grasslands under the greatest threat of conversion.
- Enrollment options:
  - Permanent easements
  - Rental agreements

ACEP - Wetlands Reserve Easement (WRE)

A voluntary, non-regulatory, incentive-based program that helps private landowners, farmers and ranchers protect and restore wetlands on their property.

Enrollment options:

Permanent easements

30-year easements

10 – year restoration agreement

Agricultural Act of 2014

Other Programs and Provisions

- Watershed Rehabilitation Program to be funded at $250M
- Special provisions for conservation compliance (as required by the 1985 Food Security Act) for crop insurance participants
  - 5 years to develop and comply with conservation plan
  - 2 years for existing operations with violations
- Retained the Technical Service Provider provision
- Veterans recognized as underserved group

Agricultural Act of 2014

- For More Information:
  - www.nrcs.usda.gov/farmbill
  - www.tx.nrcs.usda.gov/programs
  - The local field office that provides technical assistance in your county.

Questions ?

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Temple, TX 76501
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The Caldwell County Feral Hog Task Force

Development and Implementation of a Feral Hog Action Plan

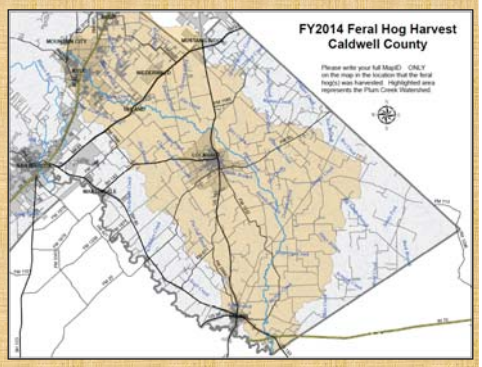
Texas Watershed Coordinator Roundtable

Waco, Texas
July 31, 2014

Caldwell County
FERAL HOG TASK FORCE

Caldwell County Statistics

- Located in Central Texas
- 38,066 total population
- Land area = 547 miles^2
- Land in farms = 476 miles^2
- Primary watershed is Plum Creek
- **Suitable feral hog habitat = 518 miles^2**
- **Preliminary feral hog population estimate range per statewide values[1]**
  - ***Average Density = 6,552 (12.65/mi^2)***
  - ***High Density = 8,495 (16.4/mi^2)***

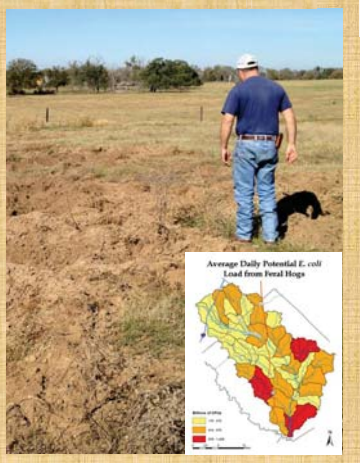


[1] Average and high density population estimate per "Feral Hog Population Growth, Density and Harvest in Texas, 2012"

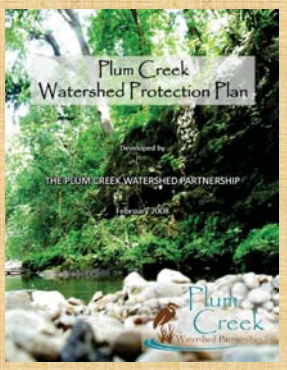
Caldwell County
FERAL HOG TASK FORCE

The Plum Creek Watershed

- 397 square mile drainage
- Tributary to the San Marcos River
- Plum Creek was placed on the 2004 Texas 303(d) list for exceeding the primary contact recreation water quality standard for bacteria (*E. coli* < *126 cfu*). To date, all 3 segments remain impaired.
- Plum Creek Watershed Partnership *established* 2006
- Plum Creek Watershed Protection Plan *published* 2008
- Feral hogs identified as a ***significant source*** for bacteria, sediment and nutrient loading in watershed
- 2012 TCEQ Integrated Report concerns: DO, Habitat, Nitrate, Orthophosphorus, Total P.



Watershed Protection and Adaptive Management



www.plumcreek.tamu.edu

Adaptive Management...

Texas Department of Agriculture – 2012 Hog Out County Grants Program

- Hays and Caldwell County programs facilitated by Plum Creek Watershed Partnership
- Program conducted October 1, 2012 through December 31, 2012
- $2 per tail bounty instituted (receipt from Certified Holding Facility also accepted)
- Over $1,000 in prizes donated
- Hays County results:
  - **110 feral hogs harvested**
  - **57 individuals educated (3 workshops)**
- Caldwell County results:
  - **1,025 feral hogs harvested**
  - **68 individuals educated (2 workshops)**
- **$5,000 Grant Awarded**

BIG WILD

Animal Planet

The Economist

Caldwell County
FERAL HOG TASK FORCE

To monitor and reduce the economic and biological impact of feral hogs to the land, water and wildlife species of Caldwell County.

- Resolution 16-2013 established 5-year support from Caldwell County
- 8 Member Leadership Committee established
  - Landowners
  - County representatives
  - TPWD and Plum Creek Watershed Partnership
- Manage $5,000 Hog Out Grant
  - Purchased wireless trap w/ 1 year service agreement
  - Purchase 9 game cameras
- Developed the Caldwell-Hays Feral Hog Action Plan
- CHAMP Grant Proposal and Establishment of Business and Landowner Cooperatives

CHAMP Project Partners

- 25 Letters of Support
- $30,000 requested from TDA
- $55,163 in matching funds
  - County/Volunteer In-Kind - $14,444
  - Caldwell County - $10K
  - Hays County - $10K
  - SH130 - $5K
  - Caldwell County Farm Bureau - $3.5K
  - Plum Creek Conservation District - $1K
  - Guadalupe-Blanco River Authority - $1K
  - Hays County Farm Bureau - $500
  - Wireless Traps - $429
  - Goin and Associates - $740
  - Wildlife Capture Services - $200
  - Landowner Participation Contributions $8,350

WildlifeCapture.com
HogTrap
goinfencing.com
Deer Food Plot Fencing
Wireless TRAPS
SH 130 TOLL
Plum Creek Conservation District
Carter Cattle and Crude Company, Inc.
TEXAS PARKS & WILDLIFE
TEXAS DEPARTMENT OF AGRICULTURE
TEXAS FARM BUREAU
TEXAS A&M AGRILIFE EXTENSION
GBRA

TEXAS DEPARTMENT OF AGRICULTURE

TODD STAPLES
COMMISSIONER

August 12, 2013

The Honorable Tom Boren
County Judge
Caldwell County
110 S. Main Street, Room 302
Lockhart, Texas 78644

Dear Judge Boren:

The Texas Department of Agriculture is proud to continue our partnership with Texas counties in the ongoing struggle against feral hogs. I am pleased to announce Caldwell County has been selected to receive a grant in the amount of $30,000 for the County Hog Abatement Matching Program Grant (CHAMP).

As feral hogs continue their overwhelming growth in Texas, I am proud to partner with those officials and landowners at the most local level – where the impacts and solutions are most apparent. That's why over the past few years, I have set aside a portion of existing state funding for local initiatives through the Hog Out County Grant program. And now we're complementing that with CHAMP to encourage regional efforts, because feral hogs don't stop at county lines.

These programs will strengthen the state's feral hog abatement initiatives by allowing local officials to determine and implement the best abatement activities for their region and to implement these activities in a coordinated and consistent manner with other regions of the state.

I appreciate your participation in this effort, and congratulate Hays County as well on this well-deserved grant to help further control the feral hog population in your areas. Please contact Karen Reichek, grants coordinator, with any questions at (512) 936-2450 or Karen.Reichek@TexasAgriculture.gov.

Todd Staples

TS/MJ/mj

cc: The Honorable Burt Cobb

P.O. Box 12847 Austin, Texas 78711 (512) 463-7476 Fax: (888) 223-8861
www.TexasAgriculture.gov

Caldwell County and Hays County awarded first ever CHAMP Grant for $30,000

Caldwell County
FERAL HOG TASK FORCE

CHAMP Grant Summary

- Implementation of the Caldwell / Hays Feral Hog Action Plan (Year 1)
- Administered by the Caldwell County Feral Hog Task Force (CCFHTF)
  - CCFHTF Leadership Committee (includes an appointed representative for Hays County)
- $85,000 in total funding ($55,000 in local funding)
- Landowner cooperative programs
  - Bounty program
  - Aerial Control
  - Professional Hunting/Trapping Services
  - *Smart* Traps
  - Drop Net

Caldwell County
FERAL HOG TASK FORCE

CHAMP Grant Summary *cont.*

- Key Aspects
  - High Intensity / Short Duration
  - Population *and* Damage Reduction
- Project Goals
  - Reduce feral hog population in Caldwell and Hays County by 5,835 individuals within 1 year
  - Quantify and reduce short-term and long-term economic impact of feral swine in Caldwell and Hays County
  - Encourage and enhance landowner participation in feral hog management through cooperative and incentive programs
  - Information transfer to stakeholders in the Plum Creek Watershed and surrounding areas
  - Develop sustainable funding structure for continuation of programs

Caldwell County
FERAL HOG TASK FORCE

CHAMP Highlights through June 2014

- Programs Implemented October 2013 and will run through August 31, 2014
- $5 Bounty Program
  - Over 150 approved participants
  - 50 landowner surveys completed
  - 281 submissions (average 11.6 tails and/or receipts)
  - 3,265 total hogs verified 9/1/13 through 6/30/14
- Aerial Control
  - Contract with private company
  - Texas Wildlife Services / Voluntary Reporting
  - 573 feral hogs removed
- Contracted Professional Hunting / Trapping
  - 4 months of service on over 2,000 acres
  - 259 feral hogs removed
- *Smart* Traps / Voluntary Reporting
  - 506 feral hogs removed

"Hog Hunters Appreciation Brunch, Raffle and Awards"

"Log Your Hogs"

2 Feral Hog Workshops

August 2014 Jackpot Competition

Caldwell County
FERAL HOG TASK FORCE

CHAMP in Pictures

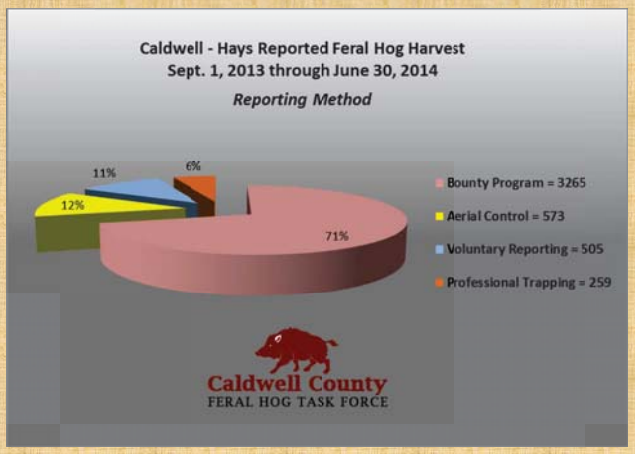




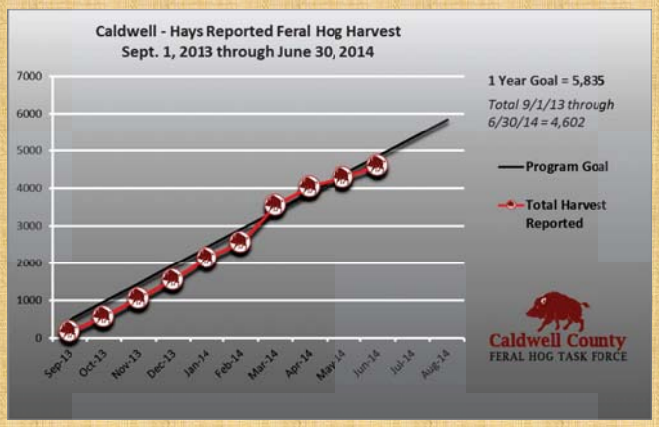




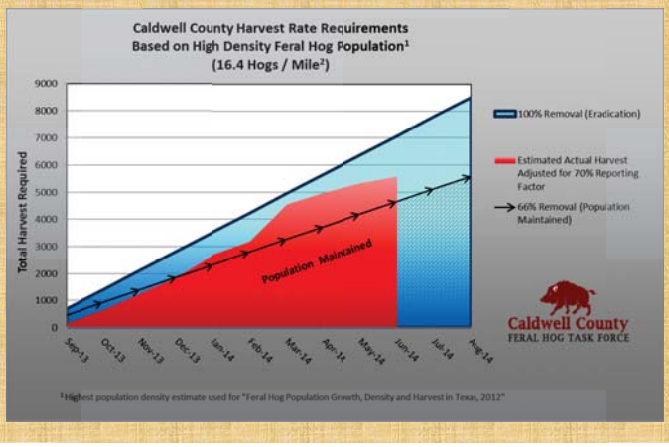

Caldwell / Hays County Feral Hog Action Plan Results through June 30, 2014



Caldwell / Hays County Feral Hog Action Plan Results through June 30, 2014



Caldwell County Feral Hog Population Reduction Based on 70% Reporting Rate through CHAMP Programs



Next Steps

- September Landowner Interviews
  - Work with Texas A&M AgriLife Extension to design landowner survey
  - One-on-one with Leadership Committee Members
  - Harvest Reporting Rates through CHAMP
  - Property Damage Estimates
  - Baseline determination and trend analysis
  - Suggestions for moving forward
- Geographic and Temporal Analysis for Reported Feral Hog Harvest
- Final Report to TDA

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Understanding the demographic makeup of local communities is critical to designing a feral hog management plan that will achieve stakeholder goals.

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FERAL HOG TASK FORCE

Early Takeaways

- Effective Bounty Program Components
  - Inclusive program, quality controls and high participation
  - Cooperative effort among landowners and hunters/trappers
  - More properties under feral hog management
  - Enhanced communication with stakeholders
    I. Building large contact database
    II. Educational opportunities
    III. Media popularity leading to increased outreach and awareness
- *Smart* Traps must be used strategically
- Drop nets are not user friendly for inexperienced landowners

Caldwell County
FERAL HOG TASK FORCE

Early Takeaways *cont.*

- Creative programs to revitalize cooperators are important!
  - Events and Awards
- Total Cost per reported feral hog harvested September 1, 2013 through June 30, 2014 is **$8.98** for all programs
  - Aerial Control and Professional Trapping are expensive but important tools
  - *Volunteers are critical to keeping costs low and community engagement high*

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FERAL HOG TASK FORCE

Early Takeaways *cont.*

- Investing in county-based programs should be viewed as one of the most effective ways to control feral hog populations throughout Texas as a whole
  - Local resources
  - Local solutions
  - Community involvement…*Crafting the message*
  - Grassroots organizing for sustainable management

…Just look at Caldwell County

Caldwell County
FERAL HOG TASK FORCE

Thanks!

Nick Dornak,
Plum Creek Watershed Coordinator

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(512)213-7389

Email the Task Force at
ccfhtf@gmail.com

ESTIMATING ON-SITE SEWAGE FACILITY DENSITY IN RURAL WATERSHEDS USING GIS

LUCAS GREGORY

BENJAMIN BLUMENTHAL, KYNA BOREL, R. KARTHIKEYAN, KEVIN WAGNER

Texas Water Resources Institute

Texas Watershed Coordinators Roundtable

July 31, 2014
Waco, Texas

OSSFs IN THE U.S.

- About 20% of all U.S. households use OSSFs
- Roughly 33% of new development in the U.S. uses OSSFs
- Primarily focused in rural or rapidly urbanizing areas

THE PROBLEM

- Inconsistent or no data
  - Varies by jurisdiction
    - Paper records
    - GIS tracking
  - Older systems may not be documented at all

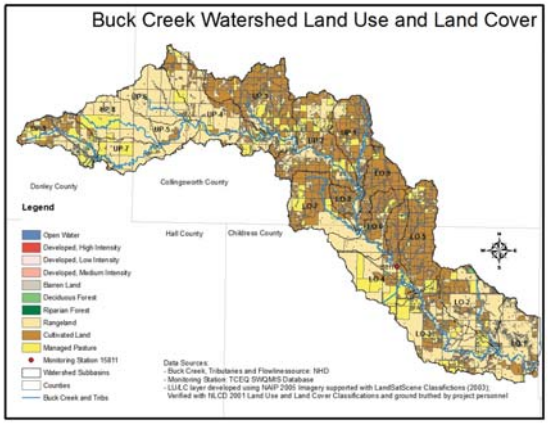
NEED

- A reasonable approach to estimate how many OSSFs there are in a watershed and their approximate location

THE APPROACH

- Utilize readily available information to estimate potential OSSF numbers and locations
- Compare resulting estimates
- Select most appropriate method based on watershed knowledge and stakeholder feedback

STUDY SITE



DATA UTILIZED

1990 Census

- Last consistently available national data set on OSSFs
- Asked "Is this building connected to a public sewer?"
- No spatial attribution

2010 Census

- Did not ask how sewage was disposed
- Does provide numbers of housing units per Census blocks
- Data are geo-located

DATA UTILIZED

911 Addresses

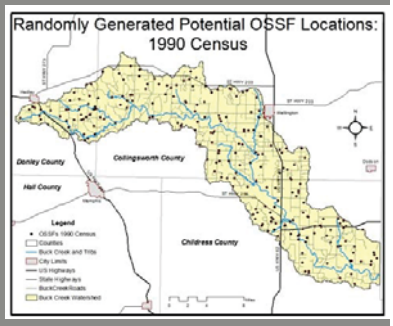
- Available at regional scales
- Provides spatial attribution for physical addresses
- Address is provided on the roadway

Satellite Imagery

- Readily available
- Affords the ability to see buildings across the watershed (most of the time)
- Multiple years and types available for comparisons (leaf on / leaf off)

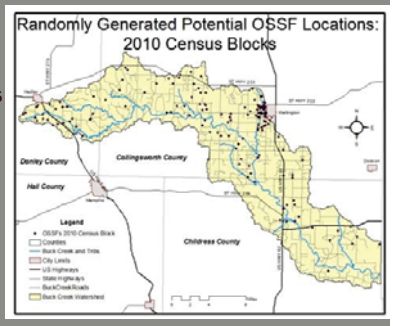
METHODS

- 1990 Census
  - #s of OSSFs scaled to the watershed level
  - Randomly distributed across the watershed using GIS



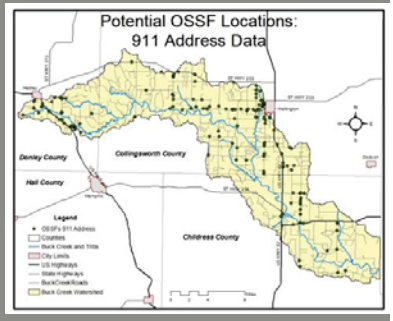
METHODS

- 2010 Census
  - #s of housing units randomly distributed across respective Census blocks
  - Census blocks clipped to the watershed
  - # of housing units in clipped area tallied



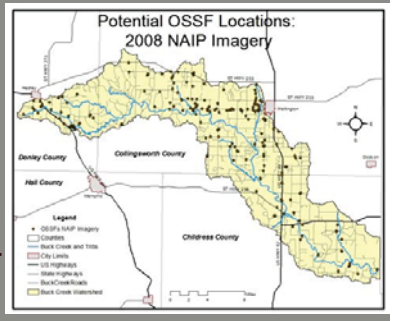
METHODS

- 911 Addresses
  - Points imported to the GIS and clipped to the watershed
  - Points cross-referenced with imagery to verify type of address



METHODS

- Satellite Imagery
  - Buildings in the watershed identified by visual observation
  - Points digitized and imported to GIS
  - Considered surrounding factors when determining potential for OSSFs



RESULTS

# of OSSFs Estimated by County

Data Source	County			Total
	Childress	Collingsoworth	Donley	
1990 Census	79	104	37	220
2010 Census	18	110	25	153
2008 NAIP Imagery	36	119	33	188
911 Address	26	97	36	159

County	N	Range	Minimum	Maximum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
Childress	4	61.00	18.00	79.00	39.75	13.59	27.18
Collingsworth	4	22.00	97.00	119.00	107.50	4.66	9.33
Donley	4	12.00	25.00	37.00	32.75	2.72	5.44
Total	4	67.00	153.00	220.00	180.00	15.37	30.74

CONCLUSIONS

- 1990 Census data overestimates potential OSSFs
  - Rural to urban migration
- Satellite Imagery overestimates potential OSSFs
  - Counting barns
- 2010 Census data is likely the most accurate
  - Rough spatial attribution
- 911 Address approximation is close to 2010 Census
  - Only after removing non-building associated points

RECOMMENDATIONS

- Use a multi-method approach if possible
- Start with 911 Addresses
- Compare to 2010 Census Block data
- Verify with satellite imagery
- Incorporate other data as available

IMPROVEMENT TO THE APPROACH

- Totally disregard 1990 data
- Use 2010 Census to verify counts
  - Population data provided by Census block provides average persons per household
- Cross reference sources of 'urbanized areas'
  - City limit maps
  - 'Urbanized areas' from 2010 Census
  - Certificates of Convenience and Necessity
    - Self reported if the entity chooses
  - Observe aerial imagery
    - Especially useful using imagery taken during drought

OTHER POTENTIAL DATA

- County Health Department or Designated Representative of OSSFs
- Wastewater utility data regarding service area and number of connections
  - Other service connnections?

LIMITATIONS

- Only an approximation of OSSF locations and numbers
- Does not assess potential for OSSF failure
  - System age
  - Proper maintenance
  - System type

FUNDING SUPPORT

- Funding support provided in part by the Texas State Soil and Water Conservation Board through CWA Section 319(h) Grant Funding from the U.S. Environmental Protection Agency.

CITATION

- Gregory, LF, Blumenthal, B, Wagner, KL, Borel, KE, Karthikeyan, R. 2013. Estimating on-site sewage facility density and distribution using geo-spatial analyses. *Journal of Natural and Environmental Science.* **4(1):** 14-21. Available at: http://www.asciencejournal.net/asj/index.php/NES/article/view/491/pdf_112

TEXAS A&M UNIVERSITY

Texas Water Resources Institute

QUESTIONS?

Lucas Gregory

lfgregory@ag.tamu.edu

Feral Hog Educational Programs

Mark Tyson, M.S.

Texas A&M AgriLife Extension Service

Enhancing Statewide Watershed Education

- In-person watershed-based feral hog educational trainings

- Online and in-print feral hog educational resources

- One-on-one site visits

In-Person Watershed-Based Feral Hog Educational Trainings

- Promote healthy watersheds and enhance watershed education across the state.
- Increase citizen awareness, understanding and knowledge of feral hogs.

In-Person Watershed-Based Feral Hog Educational Trainings

- 1-Hour and 4-Hour Trainings
- Accomplished through collaboration between:
  - County Extension Agents
  - Watershed Coordinators
  - Federal, State and Local Organizations

In-Person Watershed-Based Feral Hog Educational Trainings

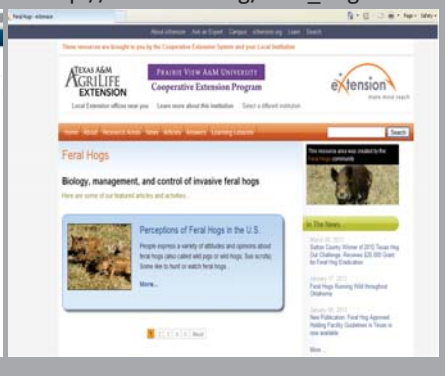
- Topics Include:
  - Biology
  - Implications to the Watershed
  - Population Dynamics
  - Transportation Regulations
  - Safety and Disease Concerns
  - Population Reduction Techniques

Online Feral Hog Educational Resources

- Websites
- YouTube Videos
- Social Media Outlets
- Wild Wonderings Blog
- iPhone App

Online Feral Hog Educational Resources

- Coping with Feral Hogs
  http://feralhogs.tamu.edu
- Feral Hogs Community of Practice
  http://extension.org/feral_hogs

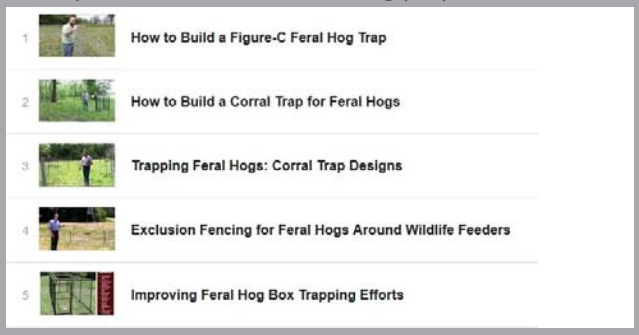


Online Feral Hog Educational Resources

- TAMU Wildlife and Fisheries Extension
  http://youtube.com/WFSCAgrilife

Online Feral Hog Educational Resources

Top 5 videos on the feral hog playlist



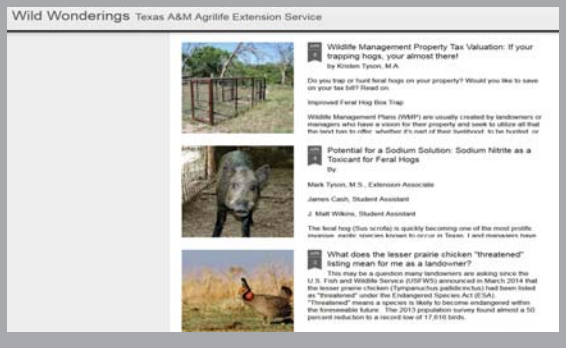
Online Feral Hog Educational Resources

- Facebook- http://facebook.com/feralhogcop

- Twitter- http://twitter.com/feralhogscop

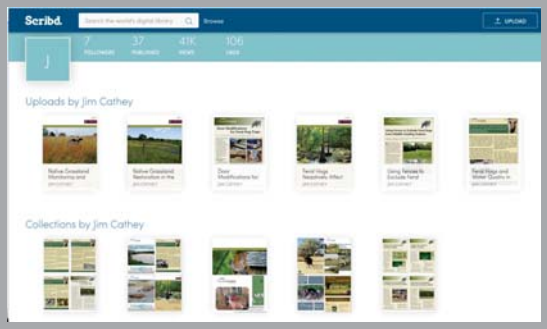
Online Feral Hog Educational Resources

- Wild Wonderings Blog
- http://wild-wonderings.blogspot.com



Online Feral Hog Educational Resources

- Scribd
- http://scribd.com/jccathey_scribd



Online Feral Hog Educational Resources

- Feral Hog Management App
  - Available in the iTunes Store
  - iPhone, iPad and iPod Touch

In-Print Feral Hog Educational Resources

- 11 Publications and 5 Factsheets

One-On-One Site Visits

- Property visit with Land Manager and County Extension Agent

- Develop property-specific feral hog management recommendations

Project Funding

- Provided through a Clean Water Act §319(h) nonpoint source grant from the Texas State Soil and Water Conservation Board and the U.S. Environmental Protection Agency

Questions?

- Mark Tyson
- (979) 845-4698
- mark.tyson@ag.tamu.edu

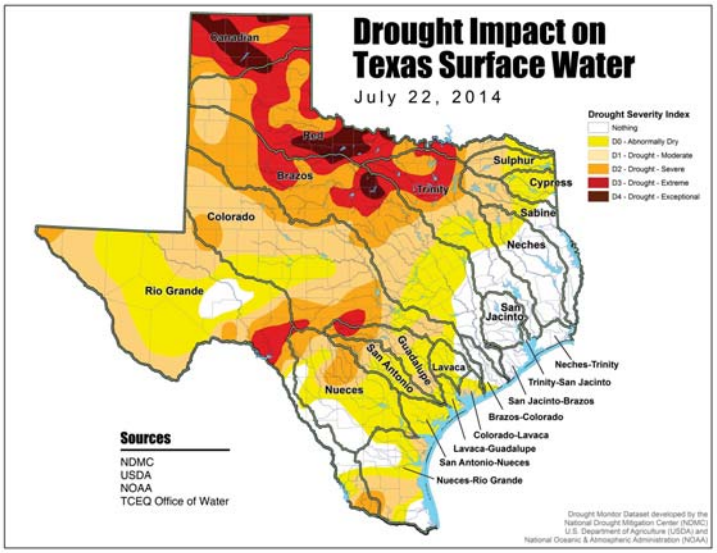
Outcomes of March 2014 Workshop on *Improving Watershed Program Efficiency & Success*

Texas Watershed Coordinator Roundtable

July 31, 2014

Key Questions Discussed

- How can we do more with less?
  - i.e. be more efficient
- How can we be more successful?
  - i.e. more effective; improve water quality



Workshop Goals:

1. Identify watershed-based solutions to the complex water quality issues facing Texas
   - Specifically **target 2-3 tangible items to address over next year** to improve watershed planning and their effectiveness.
2. Discussion focused on two topics
   - Improving the planning process
   - Improving stakeholder engagement

Improving Planning Efficiency

Background Questions/Considerations

There's Not Enough Watershed Plans

- How can we increase the numbers of plans to implement?
- How do we get watershed plans done in the spirit of new guidance but with reasonable costs and timeframes?

Key Questions To Consider Regarding **The Planning Process**

How do we make planning more efficient?

- What is the proper sequencing of planning & implementation processes?
  - RUAAs, basin approach, etc…
- How long does planning (timeframe) need to be?
- What is the bare minimum that is needed in a plan to drive implementation?
  - What's important & what's not important?
  - How do we alleviate the technical onerous of watershed plans?
  - How can the rigorous expectations from agencies be reduced?
  - How can we make watershed plans shorter and more concise?
- Need agreement on simplistic approaches to modeling/data analysis.
  - Is detailed modeling needed? What degree of modeling is needed?
  - Need models that get us to actual loads that are easy/efficient.
  - Need bacteria loadings and reductions in-stream for reductions in plans
  - What are background loadings and how do we account for them
- How do we get more/better data
  - Need usable data on sources and standard practices for assessing

Solutions Offered

Improve The Planning Process By:

- Having standard practices on data and calculations of loads and load reductions
- Sharing developed standard practices on calculations of loads and load reductions, plan writing, education activities.
- Develop a watershed plan template.

Key Questions To Consider Regarding **Stakeholder Engagement**

- How to reach out to people?
- How do you keep them engaged?
- Finding the people and keeping them engaged?
- Do we need to reach out to everyone?
- How do we get people to buy in that watershed planning is important to them?
- Why don't people care and what can we do to get them to?
- Tools are needed to more effectively engage the development community to design for water quality as well as water quantity during development. This might be as far reaching as local code, or just some guidance on issues to consider.
- How do we get more stakeholders interested in being involved in and implementing? What incentives could help with this?

Solutions Offered

Improve Stakeholder Engagement By:

- Having standard practices
- Increasing water quality awareness before initiating planning
- Providing more info on benefits of plan
  - Specific info regarding expected financial benefits (grants, etc.)
- Providing educational activities
- Specifically targeting those responsible for implementation
  - Less emphasis on "public" and greater emphasis on decision makers

Workshop Action Items

- Develop WPP template
- Develop guidance and best practices for:
  - Stakeholder engagement, education and outreach
  - Plan development
- Develop mentoring program

Progress to date

- None
- Need to:
  - Form small group to draft guidelines & template
  - Form larger committee to serve as reviewers

FUTURE TOPICS OF DISCUSSION

Improving Implementation Success
Background Questions/Considerations

There's Not Enough Success

- Why haven't we seen successes in the past from plans?
- What is the key to success? What are we missing?
- How do we make this work?
- How effective are current efforts in accomplishing the goals they set out to?

Key Questions To Consider Regarding **Implementation Incentives**

- What economic incentives make practices worthwhile adopting
- How do we redirect the ship to head towards practices with higher success rates?
- Should we target funding for specific high impact BMPs and addressing point sources?
- Do we need a heavy handed "stick" to get stakeholders to implement BMPs more aggressively?
- Watershed-based permitting. Potential interest in this issue from entities that own and operate WWTPs, and could serve as a means of providing funds needed to implement plans.
- Guidance for BMP implementation planning and capital improvement programs for watershed plans
- How can private entities be incentivized to include BMPs as part of the development process, with more consideration to post-construction/long-term BMPs

Possible Solutions to Discuss

Improve Implementation By:

- Targeting incentives to:
  - High impact measures
  - High impact zones (i.e. riparian)
- Increasing incentives in targeted areas

Key Questions To Consider Regarding **Implementation Monitoring**

- How do we better monitor the effects of our BMPs?
- Can we improve our success rate thru better monitoring?
- Issues with how we're monitoring – i.e. effectiveness monitoring used for listing purposes which exasperates the problem.
- How do we get greater value placed on watershed improvements beyond water quality improvements?
  - More value needs to be placed in watershed plans besides water quality improvements to give stakeholders pride in what they're doing.

Possible Solutions to Discuss

Improve Implementation Monitoring By:

- Decrease reliance on routine monitoring
- Use paired watershed approach
- Increased use of volunteer monitoring
- Use surrogate parameters to reduce monitoring costs

Key Questions To Consider Regarding **Implementation Funding**

- How do you fund implementation?
- With less $, what are alternative sources and avenues to achieve success?
- How can we better use SRF to tackle some of the big $ problems associated with watershed plans?
- What are the issues with using SRF and how can they be alleviated?
- What are the impediments of getting 319 $ on the ground?

Possible Solutions to Discuss

Improve Implementation Funding By:

- Increased integration of water programs
  - Wildlife habitat improvement
  - Water conservation plans
  - State Water Plan
- Greater use of volunteers
- Increased engagement with private entities

Thoughts?

Review of Bacterial Source Tracking in Texas

Kevin Wagner, George DiGiovanni, Terry Gentry, Elizabeth Casarez, Emily Martin

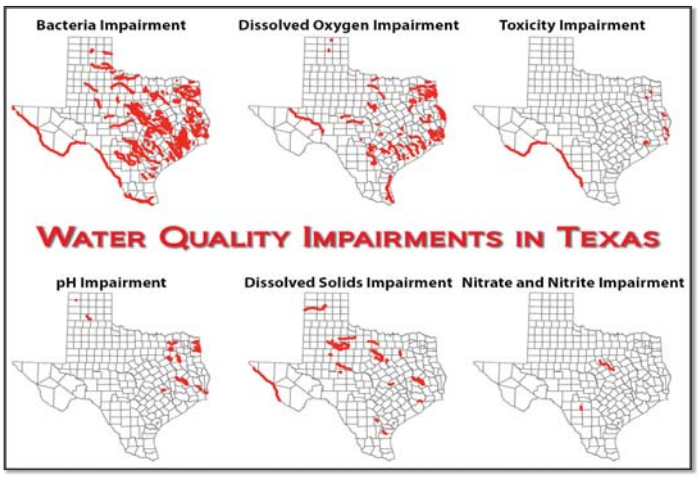
UTHealth School of Public Health — The University of Texas Health Science Center at Houston

Texas Water Resources Institute — make every drop count

AgriLIFE RESEARCH — Texas A&M System

Bacteria

The #1 Cause of Water Quality Impairment in Texas



Where did the Bacteria (*E. coli*) Come From?

- **Potential sources**
  - **Humans**
  - **Domesticated animals**
  - **Wildlife**
- **Methods for determining sources**
  - **Source survey**
  - **Modeling**
  - **Bacterial source tracking (BST)**

UTHealth School of Public Health — The University of Texas Health Science Center at Houston

Texas Water Resources Institute — make every drop count

AgriLIFE RESEARCH — Texas A&M System

PREMISE BEHIND BST

Different guts → Different adaptations

→ Different *E. coli* strains →

Genetic Differences

Phenotypic Differences

AgriLIFE RESEARCH — Texas A&M System

Classifications of BST Methods

	Library-dependent Methods	Library-independent Methods
Genotypic	Ribotyping	F+ coliphages (FRNA & FDNA phage)
	Bacterial community fingerprinting	Direct pathogen detection (PCR, RT-PCR)
	Rep-PCR[2]	*Bacteroides* genotyping
	PFGE[2]	Enterotoxin biomarkers
	Mitochondrial DNA	
Phenotypic	Antibiotic resistance analysis (ARA)	*Bifidobacterium*
	Carbon source profiling (CUP)	Phage infecting B. fragilis
		F+ coliphage serotyping

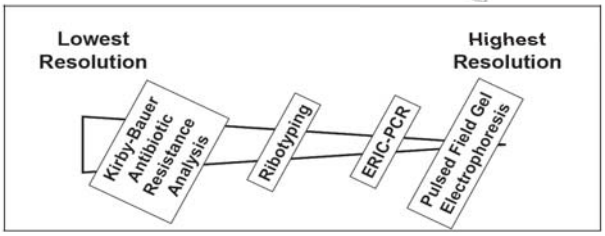
UTHealth School of Public Health — The University of Texas Health Science Center at Houston

Texas Water Resources Institute — make every drop count

AgriLIFE RESEARCH — Texas A&M System

History of BST Use in Texas

- Lake Waco/Belton Project initiated Sep. 2002
- Funded by TSSWCB
- Evaluated utility & methods
- Completed Feb. 2006

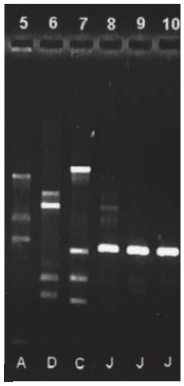


History of BST Use in Texas

- Lake Waco/Belton Project Findings
  - 4-method composite performed better than individual methods
  - 2-method composites appeared promising
    - ERIC-ARA = lower cost but more sample & data processing
    - ERIC-RP = higher cost but automated
- TMDL Task Force Report – 2007
  - Confirmed ERIC-RP as recommended method

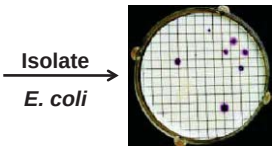
Library-Dependent BST Methods

- **DNA fingerprinting methods selected**
  - **Enterobacterial repetitive intergenic consensus sequence-polymerase chain reaction (ERIC-PCR)**
  - **RiboPrinting® (RP)**
- **Requires BST Library Development**



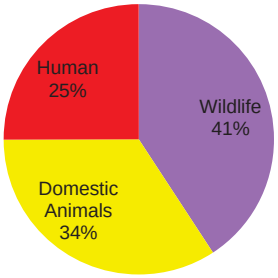
Development of Texas *E. coli* BST Library

Sources

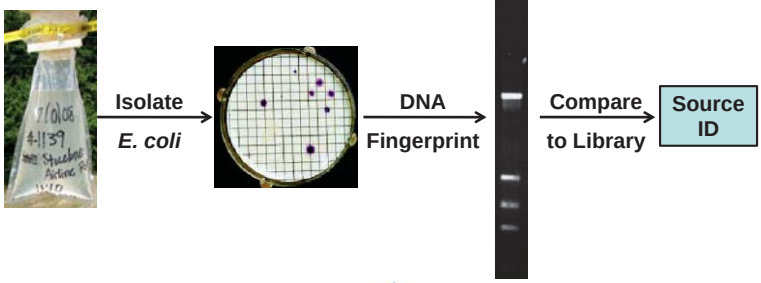


Texas *E. coli* BST Library

- **Contains**
  - **1,632 *E. coli* isolates**
  - **From 1,423 different fecal samples**
  - **Representing >50 animal subclasses**
  - **Collected from 13 watersheds (& growing) across Texas**

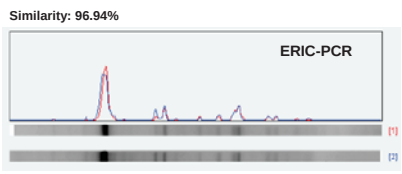


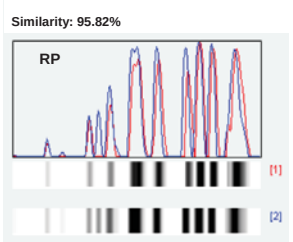
Use of Texas *E. coli* BST Library for Identifying Water Isolates



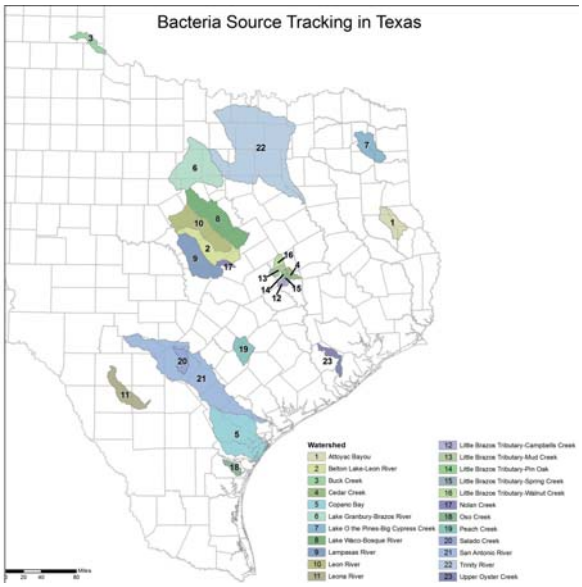
Comparison to Texas *E. coli* BST Library

- **Best match approach with 80% minimum similarity cutoff based on laboratory QC data**
  - **Water isolate must match library isolate ≥ 80% similarity or is considered unidentified**
  - **Identification to single library isolate with highest similarity – max similarity approach**

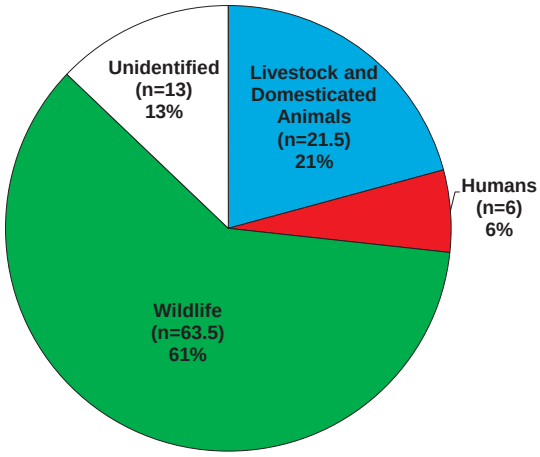




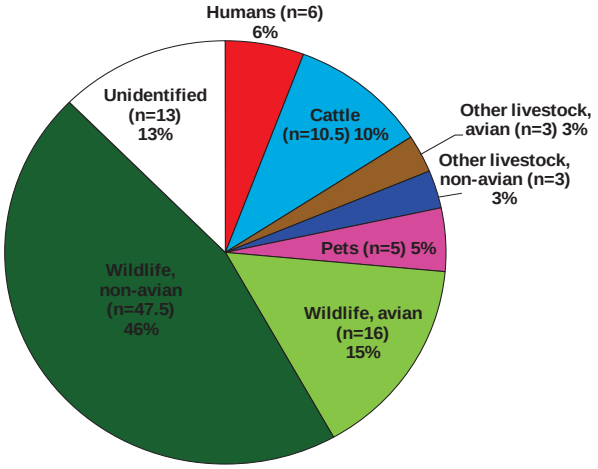
Findings To Date



E. coli BST Results - Attoyac
Base + Storm Samples – 3-Way Split



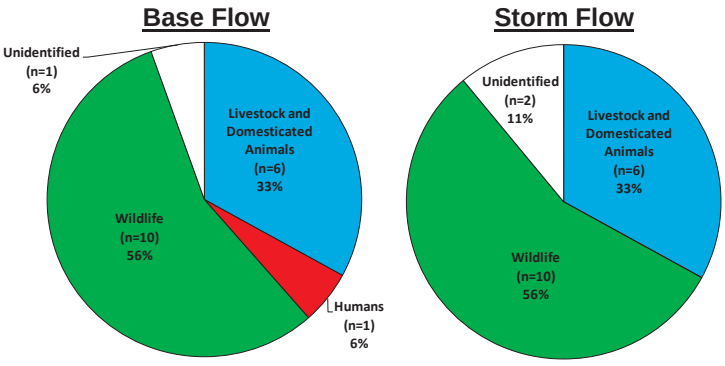
E. coli BST Results - Attoyac
Base + Storm Samples (7-Way Split)



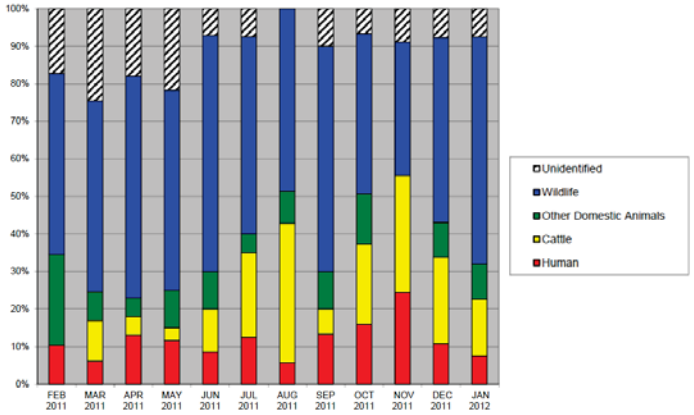
Texas *E. coli* BST Library composition & rates of correct classification (RCC)

Source Class	Number of Isolates	Number of Samples	Library Composition and Expected Random Rate of Correct Classification	Calculated Rate of Correct Classification (RCC)	RCC to Random Ratio***	Left Unidentified (unique patterns)
HUMAN	**364**	**315**	**24%**	**100**	**4.2**	**22**
DOMESTIC ANIMALS	**531**	**474**	**35%**	**100**	**2.9**	**19**
Pets	86	76	6%	83	13.8	40
Cattle	237	207	16%	93	5.8	11
Avian Livestock	96	83	6%	89	14.8	25
Other Non-Avian Livestock	112	108	7%	90	12.9	14
WILDLIFE	**629**	**569**	**41%**	**100**	**2.4**	**19**
Avian Wildlife	239	221	16%	85	5.3	21
Non-Avian Wildlife	390	348	26%	92	3.5	17
Overall	**1524**	**1358**		**3-way = 100% 7-way = 92%**		**20%**

E. coli BST Results - Attoyac
Base Flow vs Storm Flow (3-Way Split)



E. coli BST Results - Lampasas
(Monthly 4-way Split All Sites Combined)

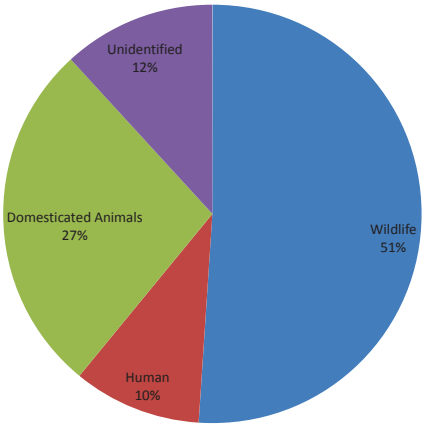


UTHealth School of Public Health — The University of Texas Health Science Center at Houston

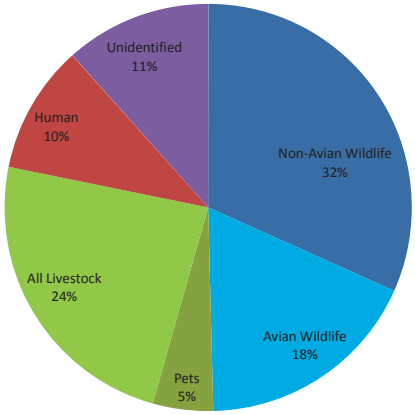
Texas Water Resources Institute — make every drop count

AgriLIFE RESEARCH — Texas A&M System

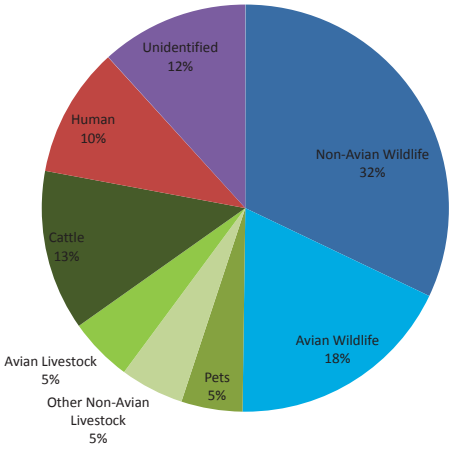
Summary of BST Study Findings (n=11)
3-Way Split



Summary of BST Study Findings (n=10)
5-Way Split



Summary of BST Study Findings (n=7)
7-Way Split

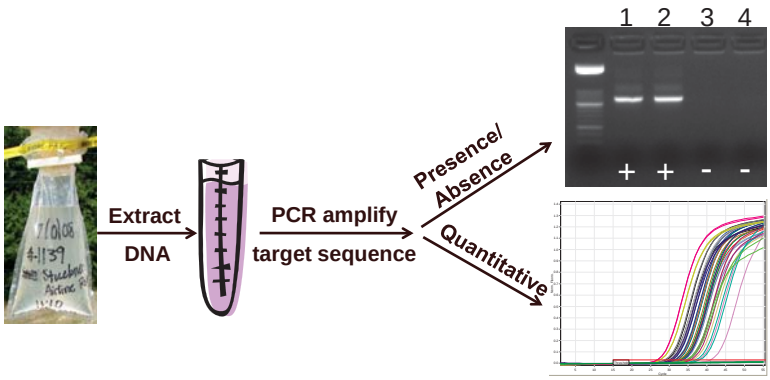


Future Methods & Approaches

1. **Identify the "Unidentified"**
   - Continue expansion of BST library
   - Evaluating "Naturalized" Soil Borne *E. coli*
2. **Improve Library Independent BST**
   - Genotypic detection of microorganisms based on marker genes (DNA)
   - Does not require known-source library
   - Rapid & less expensive than library methods

UTHealth School of Public Health — The University of Texas Health Science Center at Houston
Texas Water Resources Institute — make every drop count
AgriLIFE RESEARCH — Texas A&M System

Library Independent BST



Library-Independent BST

Most common approach targets *Bacteroidales*

- More abundant than *E. coli* in human & animal feces
- Not pathogenic
- Typically >90% specific
- Markers available for:
  - Ruminants (i.e. cattle, deer, sheep, llama) & Cattle
  - Humans
  - Pigs (including feral hogs – UTSPH-El Paso)
  - Horses (needs further validation)
  - Birds (needs further validation)
- Limited markers for wildlife (new markers being developed)
- Relationship to *E. coli* & pathogens uncertain (further eval. relationship)

UTHealth School of Public Health — The University of Texas Health Science Center at Houston
Texas Water Resources Institute — make every drop count
AgriLIFE RESEARCH — Texas A&M System

Questions?

- Kevin Wagner
- TWRI Assoc. Director
- 979-845-2649
- klwagner@ag.tamu.edu

- George Di Giovanni
- Professor, UT School of Public Health – El Paso
- 915-747-8509
- george.d.digiovanni@uth.tmc.edu

- Terry Gentry
- Assoc. Professor, Texas A&M AgriLife Research
- 979-845-5323
- tgentry@ag.tamu.edu

Current funding provided by:
Texas State Soil & Water Conservation Board

Upcoming Trainings

Nikki Dictson
Texas Water Resources Institute

Upcoming Trainings

- Advertise on the listserv and website
- http://Watershedplanning.tamu.edu

Applied Environmental Statistics

- August 25-29, 2014 in College Station
- Conducted by Practical Environmental Stats, Dennis Halsell
- Website:
- Cost: $400 (reduced rate) $500 late registration

Getting In Step & Stakeholder Facilitation Trainings

Charlie MacPherson, Tetra Tech
September 29 & 30, 2014
(separate registrations)
Austin, Texas

Social Marketing Training: Quality Outreach and the Internet

Amy Hays
October 28-29, Houston, Texas

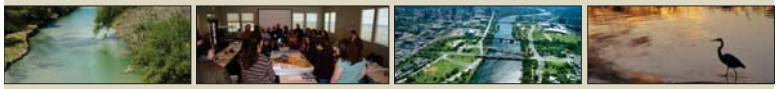
- Afternoon of the 18th would be a more one on one opportunity to work through some social marketing
- The 19th would be a one day social marketing training for natural resource professionals

Upcoming Trainings in 2015

- Short Course
- Introduction to Modeling
- Fundamentals of Developing a Water Quality Monitoring Plan

The Texas Watershed Steward Program

A Water Resource Training Curriculum



Galen Roberts, Mark McFarland, Jennifer Peterson, Ward Ling
Texas A&M AgriLife Extension Service

Texas Well Owner Network

Drew Gholson, Diane Boellstorff , Ryan Gerlich
Texas A&M AgriLife Extension Service

Getting In Step & Stakeholder Facilitation Trainings

Charlie MacPherson, Tetra Tech
September 29 & 30, 2014
(separate registrations)
Austin, Texas

*(51) evaluations received (61 participants)	Poor	Fair	Good	Excellent	Notes
What was your overall satisfaction with the Roundtable?	0	0	21	28	
Will the information presented in the Roundtable help you?	0	1	24	26	

What topic(s) is (are) most valuable to you:	
	data analysis, modeling, agriculture, urban
2	discussion of outcomes from March 2014, OSSFs, Farm Bill, Arroyo
5	319 NPS grant
	The BTWN Forest Info and Farm Bill
3	WPP Development, OSSF ID
	source tracking/specific tools to use
	New Vision/direction
5	Panel discussion outcomes of March 2014
2	OSSFs, Farm Bill
5	Bacterial Source Tracking, Arroyo Dashboard
2	Improving watershed program efficiency & success
4	Farm Bill, portals and tech resources
4	portions of each presentation were valuable
3	BST and Feral Hogs
2	discussions of WPPs and TMDLs
	OSSF Identification, Texas Forest Service Map my Property
2	water quality
3	2014 Farm Bill
	stakeholder outreach techniques, WPP info

What topic(s) should have been addressed (or addressed more thoroughly)?	
5	great job!
	Arroyo dashboard and TX forestry portal
5	WPP Development strategies; maybe focus discussion/cas study to show level of detail needed for an element

	WPP Approval Process, Good/Bad/Ugly in Restoration
2	EPA 9 Elements (focus on 1 element per meeting), EPA Review Guidance
3	other non-agricultural funding ideas, other grants
	New TMDL Program
	mointoring across watersheds
	re-color/illegibility of OSSF slides
	add more topics on assesment techniques and methods
	More info on bridge documents
	ground water
	Impact of feral hogs in urban areas
Please list any recommendations or suggestions for the next Roundtable:	
	Junction? Houston or San Antonio
3	suggest networking breaks; ending at 3 the latest (due to travel needs)
5	College Station
	Temple. College Station. Junction
	Highlights from a person writing a WPP (share expereinces), funding outside of EPA 319
	urban/suburban topics
	no preference, SAWS would be great
3	Houston
	Monday or Friday (weekdays hard for travel)
11	Monday or Friday in San Antonio is good
	More structured panel discussion/ Q&A session, provide links to presentations & attendees
	anywhere is fine
3	How to effectively run/facilitate a stakeholder meeting
	San Marcos
8	Waco
2	Austin
2	Port Aransas
	Have a wrap up with potential list of action items
	CWSRF funding program (Green Project Reserve)
	San Antonio or Austin (more centralized)

	Corpus Christi
	SRF perhaps
	Galveston
	less sitting, healthier lunch
Please list the watersheds that you are involved in:	
	Upper Trinity River
	numerous - could possibly consider focusing on a given watershed for each meeting (1/2 hour formatting)
	Attoyac, Orange County, Lake o' the Pines, others in Central TX
6	Too many to list/all, Texas
	Attoyac, Cypress Creek, Buck Creek
	Richland - Chambers
	Galveston Bay Oyster Waters and all surrounding tributaries
	Cypress Creek, Carters Creek
	Carters Creek (College Station)
	Cedar Bayou, Bastrop Bayou, Houston metro, upper oyster creek
	San Bernard, Armend, E/W Forks San Jacinto
	Doube Bayou, B.I.G.
	Lampasas; Nolan Creek; Leon
2	Everything in southeast and south-central texas
	Upper Llano River, lower nueces, mill creek, geronimo creek
	Plum Creek, Geronimo Creek, Cypress Creek, Upper San Marcos, Dry Comal
	Guadalupe
	Brazos/Bosque
3	Leon
	Mill Creek, Geronimo Creek, statewide
	Arroyo Colorado, Bosque, Carters Creek
	Nueces, Oso, Petronila, Copano
	Arroyo Colorado
	Brazos, Colorado, San Antonio, Pecos, Rio Grande, small one in between

	Lake Granbury
2	Nolan, North Bosque, RUAAs in several
	NRCS
	Bosque/Brazos
	RUAAs
Additional Comments	
7	great job!
	EPA PO
	Kevin's presentation on March workshop outcomes -- great job!
	As I get more involved with the WPP, this was a great opportunity to get caught up with what is going on at
3	Thanks!
	Thanks for not serving BBQ for lunch :)
	Well organized
	Great set of speakers
2	Great facility
	Glad to see gettiing in step and stakeholder facilitation trainings are rescheduled
	give list of attendants (and contact info)

(27) evaluations received (# participants)	**Poor**	**Fair**	**Good**
What was your overall satisfaction with the Roundtable?	0	1	17
Will the information presented in the Roundtable help you?	0	1	18

What topic(s) is (are) most valuable to you:	
2	Everything - great day
	retention pond demo
10	LID info
	First speaker talking about cost vs. impact
	WPP development status in TX
	upcoming trainings
5	319 updates/guidance
2	CWA stormwater program
	MS4
3	Education/outreach/BMPs
2	EPA update/funding
	Tours/ learning about way to conserve water
	changes showing cost effectiveness & productivity of BMP's/LIDs

What topic(s) should have been addressed (or addressed more thoroughly)?	
	Technologies that stop and/or filter stormwater carried pollutants
	touch on rural issues more (wildlife, grazing, etc)
	All were useful
	Measuring of pollutant being removed… almost every current study d
	comparative costs of Lid materials/methods
	no comment
	successful implementation and long-term buy in; measuring success f
	More info about outdoor tour - it was so hot and professional dress wa
	Maybe more info on pollutant removal by impervious cover in parkin
	MS4 "over & above" and how to write stormwater Mst plans and othe
	Enjoyed the tours of the research plots. I wouls suggest selecting futu
	NPDES/319 relationship (i.e. changing separation of the two, etc)
	Local plans or city plans regarding water conservation
	How can we get entities (cities, homeowners, developers) to use LID?
	LID design & performance

Please list any recommendations or suggestions for the next Roundtable:	
	Offer corporate presentations
	Discussions of other funding soures (outside 319 funds) and examples
	Maybe invite commercial vendors to present showing and prcedures
	Challenges in WPP development in TX - what would make this proce
	none
	Food was awesome. Presentation could be done indoors to talka bout
	More state agency input TCEQ, TSSWCB
	Hawaii/Fiji.U.S Virgin Isles. Funding outside of 319, Estuary progran
	Austin, TX

	Outreach and hot to measure success with outreach & technology tran
	RESTORE Act funding
	Urban-rural interactions
	Presentation by a city that is doing LID activities
	More of an "input forum" from state and watershed folk with EPA iss
	Nood speakers to talk about control of stormwater, how to prevent po
	Learning about EPA violations, how to minimize these. Etc.
	More in depth about 319 & funding I-Plans vs WBPs

Additional Comments	
	Join "save our rain" on LinkedIn then connect with me : www.linked
	Host roundtable at a venue we ahaven't used before i.e coastal area, S
	Great job TWRI! Looks like yall made some effort in contacting the p
	Lunch was awesome :)
2	Great meeting!!!
	Very useful meeting for netoworking
	Loved the LID tour
	Nice work as always!
	Found spilled mustard on my agenda
	Thanks! (Also would love to have a coastal focus/location!)
	Ask presenters not to include basic info in their slides (many slodes b

Excellent	*Notes*
9	
8	

lid not do this?

or non-impaired bodies

as inappropriate

g lots

r docs so that 319 funding will be possible

re venues that allow for demonstration & facilitation of informal

Roadblocks and solutions

s of past projects

that work

ss go faster?

LID tour and then walk by to see what was discussed.

ns - connection/relationship to watershed plans

ısfer prjects (to fulfill 319 requirements)

ues like WBP acceptance, BMP effectiveness monitoring criteria,
llution from entering our streams and lakes

In.com.in/dougtheexpert (group)
an Antonio
ɔrovate sector, good to see them there

y EPA; stormwater causes impairment, stormwater has pollutants).

APPLIED ENVIRONMENTAL STATISTICS

Dennis R. Helsel and Edward J. Gilroy

August 25-29, 2014
College Station, TX

DAY 1

Introduction — Helsel/Gilroy 8:00 a.m.

Describing Data (Chap. 1) & Graphical Data Analysis (Chap. 2) — Gilroy 8:30 a.m.
- characteristics of environmental data
- from samples to populations
- dealing with outliers, transformations
- why use graphics
- boxplots, quantile plots, probability or Q-Q plots
- PROBLEM: describing data

General Hypothesis Testing (Chapter 4) — Helsel 11:00 a.m.
- 5 categories of hypothesis tests
- α levels and p-values
- 1-sided and 2-sided tests
- exact test vs. large-sample approximations

LUNCH 12:00 - 1:00 p.m.

- PROBLEM: how hypothesis tests work — Helsel 1:00 p.m.

Statistical intervals (Chapter 3) — Gilroy 1:30 p.m.
- Coping with uncertainty
- Confidence intervals, skewed data ?
- PROBLEM: Intervals and transforms — Gilroy 2:30 p.m.
- Some other intervals
- prediction, tolerance, how to compute
- PROBLEM; the three intervals

FINISHED 4:30 p.m.

DAY 2

Comparing Two Groups of Data (Chapters 5 & 6) — Helsel 8:00 a.m.
- Two paired groups
- Example & exercise
- Have standards been met? Exercise
- Quantile test & Exercise
- Two unpaired (independent) groups
- Permutation Tests
- PROBLEM: testing for significant differences

LUNCH 12:00 - 1:00 p.m.

Comparing More Than Two Groups of Data (Chapter 7) — Gilroy 1:00 p.m.
- one- and two-factor ANOVA
- non-parametric alternatives
- multiple comparison tests: who's different?

PROBLEM: parametric and nonparametric tests

Sample size & power curves — Gilroy 3:00 p.m.

Testing differences in Variability — Gilroy 3:45 p.m.
- Characterizing differences in variability
- Levene's & Squared Ranks tests
- PROBLEM: variability of concentrations

FINISHED 4:30 p.m.

DAY 3

Correlation Review (Chapter 8) — Helsel 8:00 a.m.
- Patterns of association with indicators
- PROBLEM: Three correlation coefficients
- Kendall's linear model
- PROBLEM: Kendall slope estimator

Linear Regression (Chapter 9) — Helsel 9:00 a.m.
- Building a good regression model
- determining improvements over background noise
- PROBLEM: modeling environmental quality
- hypothesis tests, confidence and prediction intervals

LUNCH 12:00 - 1:00 p.m.

PROBLEM: estimating total flux — Helsel 1:00 p.m.

Multiple Regression (Chapter 11) — Gilroy 1:45 p.m.
- measures of a good model
- plot the data !
- multi-collinearity
- model selection: surpassing stepwise
- PROBLEM: estimating urban non-point loads

FINISHED 4:30 p.m.

DAY 4

Analysis of Covariance (Chapter 11) — Gilroy 8:00 a.m.
- Discrete explanations
- PROBLEM: how many regression lines are needed?

Trend Analysis (Chapter 12) — Helsel 10:00 a.m.
- selecting a trend test:
- regression vs. Mann-Kendall approaches
- removing exogenous effects
- monotonic vs. step trends
- PROBLEM: Four approaches to trend tests
- censored data
- dealing with seasonality

LUNCH 12:00 - 1:00 p.m.

PROBLEM: A trend for all seasons? — Helsel 1:00 p.m.

FINAL EXAM PROBLEM	Gilroy	2:00 p.m.
Class Discussion and Applications	All	3:30 p.m.
FINISHED 4:30 p.m.		

DAY 5.

Making Sense of Nondetects	Helsel	8:00 a.m.
Contingency Tables (Chapter 14) PROBLEM: Is uranium OK?	Gilroy	9:30 a.m.
Logistic Regression (Chapter 15) PROBLEM: Estimating atrazine wash-off	Helsel	10:15 a.m.
Wrap-up	Helsel	11:30 a.m.

.

FINISHED 12:00 noon

Applied Environmental Statistics

Texas A&M University • AGLS Building Room 120 • College Station

Registration Form

(Please type or print) – Complete for Participant List

First Name: ____________________________________ Last Name: ____

Title: ____ Agency/Organization: __________________________________

Address: ____

City: _______________________________ State: _________ Zip: ____

Phone: ____________________ Fax: ___ Email: Guillen@uhcl.edu____

Any special needs (dietary or other): ____

* *

Registration fee includes: electronic course materials and a certificate of completion.
*Please note: to be eligible for this discounted rate, please use **non-federal** funds for course registration if available.*

______	**Registration before 7/21**	@	**$400.00**	**$________**
______	**-Late Registration (After 7/21)**	@	**$500.00**	**$________**
______	**Printed version of Manual**	@	**$15.00**	**$________**
______	**Parking ($20/week)**	@	**$20.00**	**$________**
		Total Fees Submitted		**$________**

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☐ **Purchase Order (government/state only)** If paying by purchase order, please fax or email your registration form to Texas Water Resources Institute and submit copy to your bookkeeper for payment processing.

☐ **Check -** payable to Texas Water Resources Institute, Account **06-215071-89531**

☐ **Credit Card – MasterCard, Visa or American Express accepted**
Mail or fax completed credit card authorization form (see below)

Send payment to:

Texas Water Resources Institute
ATTN: Applied Environmental Statistics
1500 Research Pkwy., Suite A110
College Station, TX 77843-2118

Questions may be directed to:
Nikki Dictson
Phone: (979) 458-5915
Fax: (979) 845-0662
E-mail: n-dictson@tamu.edu

Tax I.D. 74-6000541

This registration form serves as an invoice. Separate invoices will not be mailed. There will be no refunds for cancellations. Substitutions are allowed, providing that notification is sent to Nikki Dictson (n-dictson@tamu.edu) in advance.

Texas A&M AgriLife Research
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Name (as it appears on card): _____
(Please print)

Registrant's Name(s) *(if different from above)*: _____
(Please print)

Billing Address for Credit Card: _____

Description of Purchase: **Registration for Applied Environmental Statistics Training**
Texas A&M University, College Station, Texas
Transaction will state:

Amount: $_____

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(Please check type of credit card above)

Credit Card Number: **3 digit security code from back of card:**

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Expiration Date: _____

Signature: _____

Telephone Number: _____

Evaluation Form

Applied Environmental Statistics Course
August 25-29, 2014 * College Station, Texas

****

Participant Information

Name (optional) _____

****

Part I. Overall Evaluation

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

What were the most valuable aspects of this workshop?

Folder. Exercises

Exercises

What were the least valuable aspects of this workshop?

N/A

Part II. Presentation Evaluation (please rate overall content)

Introductions & Workshop Overview

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Describing Data (Chapter 1) & Graphical Data Analysis (Chapter 2)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

General Hypothesis Testing (Chapter 4)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Evaluation Form

Applied Environmental Statistics Course
August 25-29, 2014 * College Station, Texas

****

Participant Information

Name (optional) _____

****

Part I. Overall Evaluation

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

What were the most valuable aspects of this workshop?

Discussions on linear regressions / correlations

What were the least valuable aspects of this workshop?

Discussion on Power

Part II. Presentation Evaluation (please rate overall content)

Introductions & Workshop Overview

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Describing Data (Chapter 1) & Graphical Data Analysis (Chapter 2)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

General Hypothesis Testing (Chapter 4)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Evaluation Form

Applied Environmental Statistics Course
August 25-29, 2014 * College Station, Texas

****

Participant Information

Name (optional) Guille

****

Part I. Overall Evaluation

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

What were the most valuable aspects of this workshop?

Little known rules of "trick of trade" Not picked up by

What were the least valuable aspects of this workshop?

all good

Part II. Presentation Evaluation (please rate overall content)

Introductions & Workshop Overview

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Describing Data (Chapter 1) & Graphical Data Analysis (Chapter 2)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

General Hypothesis Testing (Chapter 4)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Evaluation Form

Applied Environmental Statistics Course
August 25-29, 2014 * College Station, Texas

****

Participant Information

Name (optional) _____

****

Part I. Overall Evaluation

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

What were the most valuable aspects of this workshop?

A lot of statistical methods were introduced in detail.
With I have more time to play with it.
Even though the core of the workshop is actually a little apart from what I do everyday, I still highly recommend this course to be very useful for many others. Awesome!

What were the least valuable aspects of this workshop?

Both instructors are too funny for the job.
They're supposed to be boring and gotten upset every few seconds.

Part II. Presentation Evaluation (please rate overall content)

Introductions & Workshop Overview
☒ Excellent ❑ Good ❑ Average ❑ Poor
Comments:

Describing Data (Chapter 1) & Graphical Data Analysis (Chapter 2)
☒ Excellent ❑ Good ❑ Average ❑ Poor
Comments:

General Hypothesis Testing (Chapter 4)
☒ Excellent ❑ Good ❑ Average ❑ Poor
Comments:

Evaluation Form

Applied Environmental Statistics Course
August 25-29, 2014 * College Station, Texas

****

Participant Information

Name (optional) _____

****

Part I. Overall Evaluation

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

What were the most valuable aspects of this workshop?

Great that you give us the resources to go back + redo ex. Good mixture of with interpersi exercises / demos.

What were the least valuable aspects of this workshop?

- Could go slower on some presentatio Seemed to rush through a Could improve some slideshows. Have R command slides (screenshots of menus, commands, + output) in all presentation at the point when we work examples would help people keep up because they wouldn't be taking notes using R instead of keeping up w/ the exercise.

Part II. Presentation Evaluation (please rate overall content)

Introductions & Workshop Overview

☒ Excellent ❑ Good ❑ Average ❑ Poor
Comments:

Describing Data (Chapter 1) & Graphical Data Analysis (Chapter 2)

❑ Excellent ❑ Good ❑ Average ❑ Poor
Comments:

General Hypothesis Testing (Chapter 4)

❑ Excellent ❑ Good ❑ Average ❑ Poor
Comments:

Evaluation Form

Applied Environmental Statistics Course
August 25-29, 2014 * College Station, Texas

****

Participant Information

Name (optional) Kirstin Hein

****

Part I. Overall Evaluation

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

What were the most valuable aspects of this workshop?

Exercises to practice + understand the concepts covered in class along with instructor feedback and help w/ exercises

What were the least valuable aspects of this workshop?

Some ppts sections where many slides were skipped did not happen very often although

Part II. Presentation Evaluation (please rate overall content)

Introductions & Workshop Overview

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Describing Data (Chapter 1) & Graphical Data Analysis (Chapter 2)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

General Hypothesis Testing (Chapter 4)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Evaluation Form

Applied Environmental Statistics Course
August 25-29, 2014 * College Station, Texas

****

Participant Information

Name (optional) _____

****

Part I. Overall Evaluation

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

What were the most valuable aspects of this workshop?

Finally get my hands on R, the Reader, get resources and knowing where to go if come across data management issues.

What were the least valuable aspects of this workshop?

~~Stand~~

Part II. Presentation Evaluation (please rate overall content)

Introductions & Workshop Overview

❑ Excellent ❑ (Good) ❑ Average ❑ Poor

Comments:

Describing Data (Chapter 1) & Graphical Data Analysis (Chapter 2)

❑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

General Hypothesis Testing (Chapter 4)

❑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Evaluation Form

Applied Environmental Statistics Course
August 25-29, 2014 * College Station, Texas

****

Participant Information

Name (optional) _____

****

Part I. Overall Evaluation

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

What were the most valuable aspects of this workshop?

Timeseries analysis, Multiple regression, ANCOVA lectures and exercises

What were the least valuable aspects of this workshop?

Censored data lecture

Part II. Presentation Evaluation (please rate overall content)

Introductions & Workshop Overview

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Describing Data (Chapter 1) & Graphical Data Analysis (Chapter 2)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

General Hypothesis Testing (Chapter 4)

❑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Evaluation Form

Applied Environmental Statistics Course
August 25-29, 2014 * College Station, Texas

****

Participant Information

Name (optional) _____

****

Part I. Overall Evaluation

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

What were the most valuable aspects of this workshop?
The class made me more comfortable using R.

What were the least valuable aspects of this workshop?
While the slides make sense to the instructor, may are brushed off and rushed through. Working through a complete example for each lesson and standardizing the format of lessons would help. Gilroy is difficult to hear. The chairs in the class were awful.

Part II. Presentation Evaluation (please rate overall content)

Introductions & Workshop Overview
☑ Excellent ❑ Good ❑ Average ❑ Poor
Comments:

Describing Data (Chapter 1) & Graphical Data Analysis (Chapter 2)
☑ Excellent ❑ Good ❑ Average ❑ Poor
Comments:

General Hypothesis Testing (Chapter 4)
☑ Excellent ❑ Good ❑ Average ❑ Poor
Comments:

Evaluation Form

Applied Environmental Statistics Course
August 25-29, 2014 * College Station, Texas

****

Participant Information

Name (optional) _____

****

Part I. Overall Evaluation

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

What were the most valuable aspects of this workshop?

Utilizing R- specifically the commands written + provided by the instructors. Additionally, I learned a great deal about non-parametric stats.

What were the least valuable aspects of this workshop?

Any of the tests we discussed but did not run. The examples are invaluble and I wish we'd worked through more still!

Part II. Presentation Evaluation (please rate overall content)

Introductions & Workshop Overview

❑ Excellent ☑ Good ❑ Average ❑ Poor
Comments:

Describing Data (Chapter 1) & Graphical Data Analysis (Chapter 2)

❑ Excellent ☑ Good ❑ Average ❑ Poor
Comments:

General Hypothesis Testing (Chapter 4)

❑ Excellent ☑ Good ❑ Average ❑ Poor
Comments:

Evaluation Form

Applied Environmental Statistics Course
August 25-29, 2014 * College Station, Texas

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Participant Information

Name (optional) _____

****

Part I. Overall Evaluation

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

What were the most valuable aspects of this workshop?
regression, transforming data, practice examples, R script

What were the least valuable aspects of this workshop?
Lectures were good but I benefitted most from practicing and knowing what to look for + how to interpret the output. Sometimes, a case study approach would have been helpful for application purpos

Part II. Presentation Evaluation (please rate overall content)

Introductions & Workshop Overview
☒ Excellent ❑ Good ❑ Average ❑ Poor
Comments:

Describing Data (Chapter 1) & Graphical Data Analysis (Chapter 2)
☒ Excellent ❑ Good ❑ Average ❑ Poor
Comments:

General Hypothesis Testing (Chapter 4)
❑ Excellent ❑ Good ❑ Average ❑ Poor
Comments:

Evaluation Form

Applied Environmental Statistics Course
August 25-29, 2014 * College Station, Texas

****

Participant Information

Name (optional) Bill Harrison

****

Part I. Overall Evaluation

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

What were the most valuable aspects of this workshop?

Practical applications
Use of R
Trend Analysis
Use of Non-Parametrics
Evaluation of Censored Data

What were the least valuable aspects of this workshop?

Part II. Presentation Evaluation (please rate overall content)

Introductions & Workshop Overview

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Describing Data (Chapter 1) & Graphical Data Analysis (Chapter 2)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

General Hypothesis Testing (Chapter 4)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Evaluation Form

Applied Environmental Statistics Course
August 25-29, 2014 * College Station, Texas

****

Participant Information

Name (optional) _____

****

Part I. Overall Evaluation

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

What were the most valuable aspects of this workshop?

The scripts, handouts, and solutions.
Hate to admit it but the repitition really helped.

What were the least valuable aspects of this workshop?

Some of the earlier more basic stuff. Rush through that, don't rush through ANCOVA.

Part II. Presentation Evaluation (please rate overall content)

Introductions & Workshop Overview
❑ Excellent ❑ Good ☒ Average ❑ Poor
Comments:

Describing Data (Chapter 1) & Graphical Data Analysis (Chapter 2)
❑ Excellent ❑ Good ☒ Average ❑ Poor
Comments:

General Hypothesis Testing (Chapter 4)
❑ Excellent ☒ Good ❑ Average ❑ Poor
Comments:

Evaluation Form

Applied Environmental Statistics Course
August 25-29, 2014 * College Station, Texas

****

Participant Information

Name (optional) _____

****

Part I. Overall Evaluation

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

What were the most valuable aspects of this workshop?

The practical training using R and real life examples

What were the least valuable aspects of this workshop?

General topics and didn't go in details how to interpretate results

Part II. Presentation Evaluation (please rate overall content)

Introductions & Workshop Overview

☒ Excellent ☐ Good ☐ Average ☐ Poor

Comments:

Describing Data (Chapter 1) & Graphical Data Analysis (Chapter 2)

☐ Excellent ☒ Good ☐ Average ☐ Poor

Comments:

General Hypothesis Testing (Chapter 4)

☐ Excellent ☒ Good ☐ Average ☐ Poor

Comments:

Evaluation Form

Applied Environmental Statistics Course
August 25-29, 2014 * College Station, Texas

****

Participant Information

Name (optional) _____

****

Part I. Overall Evaluation

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

What were the most valuable aspects of this workshop?

The regression & trends portions

What were the least valuable aspects of this workshop?

Part II. Presentation Evaluation (please rate overall content)

Introductions & Workshop Overview

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Describing Data (Chapter 1) & Graphical Data Analysis (Chapter 2)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

General Hypothesis Testing (Chapter 4)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Evaluation Form

Applied Environmental Statistics Course
August 25-29, 2014 * College Station, Texas

****

Participant Information

Name (optional) Lucas Gregory

****

Part I. Overall Evaluation

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

What were the most valuable aspects of this workshop?

The breadth of topics covered gave a great base of knowledge to work with and relate to. Descriptions of topics were effective and clear as were applications of tests.

What were the least valuable aspects of this workshop?

Death by PowerPoint was a bit much, but probably necessary. More application; perhaps a larger capstone case study would be good. Bouncing between code driven and GUI in R was somewhat confusing.

Part II. Presentation Evaluation (please rate overall content)

Introductions & Workshop Overview

❑ Excellent ❑ Good ☒ Average ❑ Poor

Comments:

Could be shortened since an overview of schedule provides similar info.

Describing Data (Chapter 1) & Graphical Data Analysis (Chapter 2)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Nice to have a brief refresher on basic items.

General Hypothesis Testing (Chapter 4)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Nice focus on application of non-parametric tests

Evaluation Form

Applied Environmental Statistics Course
August 25-29, 2014 * College Station, Texas

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Participant Information

Name (optional) Javier Osorio

****

Part I. Overall Evaluation

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

What were the most valuable aspects of this workshop?
The instructors provide with knowledge that is not easy to find in a textbook. The methods used were always adequate. They explained the concepts very comprehensively but in a simple way.

What were the least valuable aspects of this workshop?
Not that was too bad. but with all the information that was given we had to rush. I think we could peaced out better even if that means to stay longer days The most important for me was regression and mon detect. but overall all was either a good reminder or a new knowle to use at work.

Part II. Presentation Evaluation (please rate overall content)

Introductions & Workshop Overview

☒ Excellent ❑ Good ❑ Average ❑ Poor
Comments:

Describing Data (Chapter 1) & Graphical Data Analysis (Chapter 2)

☒ Excellent ❑ Good ❑ Average ❑ Poor
Comments:

General Hypothesis Testing (Chapter 4)

☒ Excellent ❑ Good ❑ Average ❑ Poor
Comments:

Evaluation Form

Applied Environmental Statistics Course
August 25-29, 2014 * College Station, Texas

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Participant Information

Name (optional) _____

****

Part I. Overall Evaluation

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

Thank you!

What were the most valuable aspects of this workshop?

Application of statistical methods to the R software (guide w/ steps for 1.) methods and 2) their associated functions in the R software)

Specifically, multiple regression

What were the least valuable aspects of this workshop?

Not a large enough workspace - need room for laptop & book on desktop. Also, very cramped spacing of rows, chairs/tables very close together.

Hot / Room

The software did not always function properly making the lesson difficult to follow. Also, not consistently using menu/script to perform functions made it very confusi

Ex. vif
av plots
UNBIAS

Part II. Presentation/Evaluation (please rate overall content)

Introductions & Workshop Overview

☑ Excellent ☐ Good ☐ Average ☐ Poor

Comments:

Describing Data (Chapter 1) & Graphical Data Analysis (Chapter 2)

☑ Excellent ☐ Good ☐ Average ☐ Poor

Comments:

General Hypothesis Testing (Chapter 4)

☑ Excellent ☐ Good ☐ Average ☐ Poor

Comments:

Evaluation Form

Applied Environmental Statistics Course
August 25-29, 2014 * College Station, Texas

****

Participant Information

Name (optional) WOLFE

****

Part I. Overall Evaluation

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

What were the most valuable aspects of this workshop?

- DIRECTLY APPLICABLE TO WORK
- R COMMANDER USAGE
- SCRIPTS FOR SPECIFIC TESTS
- FOLLOWING HILLSIL & HIRSCH BOOK
- SPECIFIC PROBLEM EXAMPLES W/ SOLUTIONS
- R SCRIPTS
- MATERIALS ON FLASHDRIV

What were the least valuable aspects of this workshop?

- NO FLOW CHART FOR PROCEDURES ?
- FOUND ALL USEFUL
- OFTEN PRESENTED TOO FAST FOR ME TO FOLLOW, BUT OK, WILL STUDY

Part II. Presentation Evaluation (please rate overall content)

Introductions & Workshop Overview

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Describing Data (Chapter 1) & Graphical Data Analysis (Chapter 2)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

General Hypothesis Testing (Chapter 4)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Evaluation Form

Applied Environmental Statistics Course
August 25-29, 2014 * College Station, Texas

****

Participant Information

Name (optional) _____

****

Part I. Overall Evaluation

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

I actually expected an excellent workshop, so actually the workshop met expectations.

What were the most valuable aspects of this workshop?

Well organized instructors.
Lots of hands on applications.
Examples were ~~relevant~~ relevant to the types of datasets I work with, so this will get used when I get back to the office.

What were the least valuable aspects of this workshop?

All good stuff.

Course was largely a review for me, but enjoyed learning "new" things, such as the latest on permutation tests & the refresher on how to do things right.

Part II. Presentation Evaluation (please rate overall content)

Introductions & Workshop Overview
☒ Excellent ❑ Good ❑ Average ❑ Poor
Comments:

Describing Data (Chapter 1) & Graphical Data Analysis (Chapter 2)
☒ Excellent ❑ Good ❑ Average ❑ Poor
Comments:

General Hypothesis Testing (Chapter 4)
❑ Excellent ☒ Good ❑ Average ❑ Poor
Comments:

For water quality, could use a little more time spent on comparisons to standards.

Evaluation Form

Applied Environmental Statistics Course
August 25-29, 2014 * College Station, Texas

****

Participant Information

Name (optional) Katrin Borgs

****

Part I. Overall Evaluation

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

I was really surprised how well I was able to grasp everything. Everything was well explained

What were the most valuable aspects of this workshop?

Since I only took one (really bad) statistics class in college I always had to rely on coworkers to help me with statistical analyses over the past few years. Therefore, all aspects of this workshop were extremely valuable to me. With regard to my current projects, linear and multiple regression were probably most valuable.

What were the least valuable aspects of this workshop?

Dealing with non-detects is not really relevant for my current work, so this was probably the least valuable aspect for me. However, this can change anytime, so I'm still glad that I at least know that there are ways to do this.

Part II. Presentation Evaluation (please rate overall content)

Introductions & Workshop Overview

☒ Excellent ☐ Good ☐ Average ☐ Poor

Comments:

Describing Data (Chapter 1) & Graphical Data Analysis (Chapter 2)

☒ Excellent ☐ Good ☐ Average ☐ Poor

Comments:

General Hypothesis Testing (Chapter 4)

☒ Excellent ☐ Good ☐ Average ☐ Poor

Comments:

Evaluation Form

Applied Environmental Statistics Course
August 25-29, 2014 * College Station, Texas

****

Participant Information

Name (optional) _____

****

Part I. Overall Evaluation

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

What were the most valuable aspects of this workshop?

Regression is the most useful to me.

Some additional flow chart like graphics to guide through differing types of analysis would be useful.

What were the least valuable aspects of this workshop?

group comparisons but that is due to my line of work.

Part II. Presentation Evaluation (please rate overall content)

Introductions & Workshop Overview

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Describing Data (Chapter 1) & Graphical Data Analysis (Chapter 2)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

General Hypothesis Testing (Chapter 4)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Evaluation Form

Applied Environmental Statistics Course
August 25-29, 2014 * College Station, Texas

****

Participant Information

Name (optional) _____

****

Part I. Overall Evaluation

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

What were the most valuable aspects of this workshop?

What were the least valuable aspects of this workshop?

Part II. Presentation Evaluation (please rate overall content)

Introductions & Workshop Overview
❑ Excellent ❑ Good ❑ Average ❑ Poor
Comments:

Describing Data (Chapter 1) & Graphical Data Analysis (Chapter 2)
❑ Excellent ❑ Good ❑ Average ❑ Poor
Comments:

General Hypothesis Testing (Chapter 4)
❑ Excellent ❑ Good ❑ Average ❑ Poor
Comments:

Evaluation Form

Applied Environmental Statistics Course
August 25-29, 2014 * College Station, Texas

****

Participant Information

Name (optional) _____

****

Part I. Overall Evaluation

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

What were the most valuable aspects of this workshop?

Just learning the basics of statistics was good for me.

What were the least valuable aspects of this workshop?

Part II. Presentation Evaluation (please rate overall content)

Introductions & Workshop Overview

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Describing Data (Chapter 1) & Graphical Data Analysis (Chapter 2)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

General Hypothesis Testing (Chapter 4)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Evaluation Form

Applied Environmental Statistics Course
August 25-29, 2014 * College Station, Texas

****

Participant Information

Name (optional) _____

****

Part I. Overall Evaluation

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

My expectations were high entering the class but I didn't anticipate EVERY topic and tool to be relevant — but it was!

What were the most valuable aspects of this workshop?

Permutation Tests & Trends
I often work with sparse datasets on watershed characterization projects that require trend analysis.

What were the least valuable aspects of this workshop?

All aspects were useful to my work! I suppose the tool I anticipate using least often is contingency tables but that's splitting hairs.

Part II. Presentation Evaluation (please rate overall content)

Introductions & Workshop Overview
❑ Excellent ☑ Good ❑ Average ❑ Poor
Comments:

Describing Data (Chapter 1) & Graphical Data Analysis (Chapter 2)
❑ Excellent ☑ Good ❑ Average ❑ Poor
Comments:

General Hypothesis Testing (Chapter 4)
☑ Excellent ❑ Good ❑ Average ❑ Poor
Comments:
This logic of statistics can be tricky and the instructors navigated the waters well.

Evaluation Form

Applied Environmental Statistics Course
August 25-29, 2014 * College Station, Texas

****

Participant Information

Name (optional) Nick Russo

****

Part I. Overall Evaluation

Did this workshop meet your expectations? 1 2 3 4 5

1 (Fell short of expectations) 5 (Exceeded expectations)

What were the most valuable aspects of this workshop?

great hands on, practical, training.

What were the least valuable aspects of this workshop?

n/a

Part II. Presentation Evaluation (please rate overall content)

Introductions & Workshop Overview

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Describing Data (Chapter 1) & Graphical Data Analysis (Chapter 2)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

General Hypothesis Testing (Chapter 4)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Evaluation Form

Applied Environmental Statistics Course
August 25-29, 2014 * College Station, Texas

****

Participant Information

Name (optional) _____

****

Part I. Overall Evaluation

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

What were the most valuable aspects of this workshop?

The applied nature of the class.

What were the least valuable aspects of this workshop?

Went a little too fast.

Part II. Presentation Evaluation (please rate overall content)

Introductions & Workshop Overview

☐ Excellent ☒ Good ☐ Average ☐ Poor

Comments:

Describing Data (Chapter 1) & Graphical Data Analysis (Chapter 2)

☒ Excellent ☐ Good ☐ Average ☐ Poor

Comments:

General Hypothesis Testing (Chapter 4)

☒ Excellent ☐ Good ☐ Average ☐ Poor

Comments:

Evaluation Form

Applied Environmental Statistics Course
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****

Participant Information

Name (optional) _____

****

Part I. Overall Evaluation

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

What were the most valuable aspects of this workshop?

- handouts of steps for ~~a~~ MLR
- walkthroughs of steps in R for different analysis techniques
- access to book/scripts/other tutorials

What were the least valuable aspects of this workshop?

- Sometimes explanations of data sets and examples were more verbose than necessary to get understanding of procedure. Added unnecessary length to lectures.

Part II. Presentation Evaluation (please rate overall content)

Introductions & Workshop Overview

❑ Excellent ■ Good ❑ Average ❑ Poor

Comments:

Describing Data (Chapter 1) & ~~Graphical~~ Data Analysis (Chapter 2)

❑ Excellent ☒ Good ■ Average ❑ Poor

Comments:

General Hypothesis Testing (Chapter 4)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Evaluation Form

Applied Environmental Statistics Course
August 25-29, 2014 * College Station, Texas

****

Participant Information

Name (optional) Victoria Lopez

****

Part I. Overall Evaluation

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

What were the most valuable aspects of this workshop?
The problems we did together really helped understand the R software. Different stat tests gave the course a really comprehensive of possible data analysis on environmental stats. Best topics: Logistic Regression, Trend analysis

What were the least valuable aspects of this workshop?
It was a bit fast, and some of the topics weren't explained (how/when to utilize), so the analysis parts were hard to follow.

Part II. Presentation Evaluation (please rate overall content)

Introductions & Workshop Overview
☑ Excellent ❑ Good ❑ Average ❑ Poor
Comments:

Describing Data (Chapter 1) & Graphical Data Analysis (Chapter 2)
❑ Excellent ☑ Good ❑ Average ❑ Poor
Comments:

General Hypothesis Testing (Chapter 4)
☑ Excellent ❑ Good ❑ Average ❑ Poor
Comments:

Evaluation Form

Applied Environmental Statistics Course
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****

Participant Information

Name (optional) _____

****

Part I. Overall Evaluation

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

What were the most valuable aspects of this workshop?

Multiple regression, trend analysis

What were the least valuable aspects of this workshop?

None, great workshop. Extremely valuable.

Part II. Presentation Evaluation (please rate overall content)

Introductions & Workshop Overview

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Describing Data (Chapter 1) & Graphical Data Analysis (Chapter 2)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

General Hypothesis Testing (Chapter 4)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Evaluation Form

Applied Environmental Statistics Course
August 25-29, 2014 * College Station, Texas

****

Participant Information

Name (optional) _____

****

Part I. Overall Evaluation

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

What were the most valuable aspects of this workshop?

Learning R. use of commands to run proper test & interpretation & Results.

What were the least valuable aspects of this workshop?

Time available to practice in class.

Part II. Presentation Evaluation (please rate overall content)

Introductions & Workshop Overview

☑ Excellent ❑ Good ❑ Average ❑ Poor
Comments:

Describing Data (Chapter 1) & Graphical Data Analysis (Chapter 2)

☑ Excellent ❑ Good ❑ Average ❑ Poor
Comments:

General Hypothesis Testing (Chapter 4)

☑ Excellent ❑ Good ❑ Average ❑ Poor
Comments:

Contingency Tables (Chapter 14)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Logistic Regression (Chapter 15)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Wrap Up

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Contingency Tables (Chapter 14)

❑ Excellent ❑ Good ☒ Average ❑ Poor

Comments:

Logistic Regression (Chapter 15)

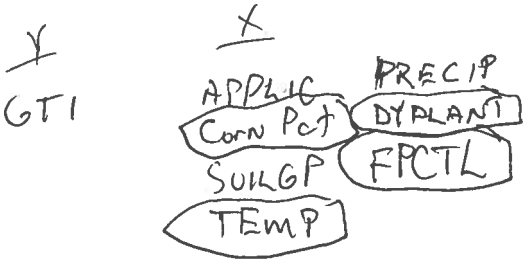
❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Wrap Up

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:



Contingency Tables (Chapter 14)

❑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Logistic Regression (Chapter 15)

❑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Wrap Up

❑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

One of the best controlled courses I have taken.

excellent

Instructor – very clear, patient, well paced.

Only bad things were constant lecture computer issues; i.e. turning off. – TAMU issue not instructor

Contingency Tables (Chapter 14)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Logistic Regression (Chapter 15)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Wrap Up

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Contingency Tables (Chapter 14)

❑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Logistic Regression (Chapter 15)

❑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Wrap Up

❑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Contingency Tables (Chapter 14)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Logistic Regression (Chapter 15)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Wrap Up

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Contingency Tables (Chapter 14)

❑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Logistic Regression (Chapter 15)

❑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Wrap Up

❑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Contingency Tables (Chapter 14)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Logistic Regression (Chapter 15)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Wrap Up

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Contingency Tables (Chapter 14)

❑ Excellent ❑ Good ☑ Average ❑ Poor

Comments:

Lesson should include where to run tests in R.
This comment applies to all sections.

Logistic Regression (Chapter 15)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Exercise was helpful

Wrap Up

❑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Contingency Tables (Chapter 14)

❑ Excellent ❑ Good ☑ Average ❑ Poor

Comments:

Logistic Regression (Chapter 15)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Wrap Up

❑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Other comment:

Instructors ~~seemed~~ seemed to struggle in acknowledging the whole class. Students sitting near the instructors had their questions answered regularly and thoroughly but some folks in the back of the room were frustrated by being frequently overlooked. The people in the back are interested too!

Contingency Tables (Chapter 14)

❑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Logistic Regression (Chapter 15)

❑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Wrap Up

❑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Contingency Tables (Chapter 14)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Logistic Regression (Chapter 15)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Wrap Up

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Contingency Tables (Chapter 14)

❑ Excellent ❑ Good ☒ Average ❑ Poor

Comments:

Logistic Regression (Chapter 15)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Wrap Up

❑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Contingency Tables (Chapter 14)

❑ Excellent ❑ Good ☑ Average ❑ Poor

Comments:

Logistic Regression (Chapter 15)

❑ Excellent ❑ Good ☑ Average ❑ Poor

Comments:

Wrap Up

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Contingency Tables (Chapter 14)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Logistic Regression (Chapter 15)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Wrap Up

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Contingency Tables (Chapter 14)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Nice explanations and good example.

Logistic Regression (Chapter 15)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Good applications and step by step process for using logistic regression

Wrap Up

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

By far the most applicable stats course I have taken for evaluating water resource data.

Thanks and I enjoyed it.

Contingency Tables (Chapter 14)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Logistic Regression (Chapter 15)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Wrap Up

❑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Contingency Tables (Chapter 14)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Logistic Regression (Chapter 15)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Wrap Up

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

This room is too hot.

Contingency Tables (Chapter 14)

❑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Logistic Regression (Chapter 15)

❑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Wrap Up

❑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Contingency Tables (Chapter 14)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Logistic Regression (Chapter 15)

❑ Excellent ❑ Good ☒ Average ❑ Poor

Comments:

Got a little lost with what to do with the model once it is produced. Have not used before. but can see where it would be useful.

Wrap Up

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Contingency Tables (Chapter 14)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Logistic Regression (Chapter 15)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Wrap Up

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Contingency Tables (Chapter 14)

❑ Excellent ❑ Good ☒ Average ❑ Poor

Comments:

Logistic Regression (Chapter 15)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Wrap Up

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Contingency Tables (Chapter 14)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Logistic Regression (Chapter 15)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Wrap Up

❑ Excellent ❑ Good ☑ Average ❑ Poor

Comments:

Ed's voice to low for instructing a classroom facility room not most comfortable for an 8hr day.

Contingency Tables (Chapter 14)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Logistic Regression (Chapter 15)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Wrap Up

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Contingency Tables (Chapter 14)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Logistic Regression (Chapter 15)

❑ Excellent ❑ Good ☑ Average ❑ Poor

Comments: Went too quickly through the material

Wrap Up

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Contingency Tables (Chapter 14)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Logistic Regression (Chapter 15)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Wrap Up

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

great job!

Contingency Tables (Chapter 14)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Logistic Regression (Chapter 15)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Wrap Up

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Contingency Tables (Chapter 14)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Logistic Regression (Chapter 15)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Wrap Up

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Contingency Tables (Chapter 14)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Logistic Regression (Chapter 15)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Wrap Up

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Contingency Tables (Chapter 14)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Logistic Regression (Chapter 15)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Wrap Up

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Contingency Tables (Chapter 14)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Logistic Regression (Chapter 15)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Wrap Up

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Statistical Intervals (Chapter 3)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Comparing Two Groups of Data (Chapters 5&6)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Comparing More Than Two Groups of Data (Chapter 7)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Sample Size, Power Curves, and Testing Differences in Variability

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Correlation Review (Chapter 8)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Linear Regression (Chapter 9)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Multiple Regression (Chapter 11)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Analysis of Covariance (Chapter 11)

❑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Trend Analysis (Chapter 12)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Making Sense of Nondetects

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Statistical Intervals (Chapter 3)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Comparing Two Groups of Data (Chapters 5&6)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Comparing More Than Two Groups of Data (Chapter 7)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Sample Size, Power Curves, and Testing Differences in Variability

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Correlation Review (Chapter 8)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Linear Regression (Chapter 9)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Multiple Regression (Chapter 11)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Analysis of Covariance (Chapter 11)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Trend Analysis (Chapter 12)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Making Sense of Nondetects

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Statistical Intervals (Chapter 3)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Comparing Two Groups of Data (Chapters 5&6)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Comparing More Than Two Groups of Data (Chapter 7)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Sample Size, Power Curves, and Testing Differences in Variability

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Correlation Review (Chapter 8)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Linear Regression (Chapter 9)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Multiple Regression (Chapter 11)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Analysis of Covariance (Chapter 11)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Trend Analysis (Chapter 12)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Making Sense of Nondetects

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Statistical Intervals (Chapter 3)

❑ Excellent ❑ Good ☑ Average ❑ Poor

Comments:

Seems we spent a lot of time going over somethings really slowly & repetitiously that could have been covered more efficiently

Comparing Two Groups of Data (Chapters 5&6)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Comparing More Than Two Groups of Data (Chapter 7)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Sample Size, Power Curves, and Testing Differences in Variability

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Correlation Review (Chapter 8)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Linear Regression (Chapter 9)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Multiple Regression (Chapter 11)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Analysis of Covariance (Chapter 11)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Trend Analysis (Chapter 12)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Making Sense of Nondetects

❑ Excellent ❑ Good ☒ Average ❑ Poor

Comments:

Statistical Intervals (Chapter 3)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Comparing Two Groups of Data (Chapters 5&6)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Comparing More Than Two Groups of Data (Chapter 7)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Sample Size, Power Curves, and Testing Differences in Variability

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Correlation Review (Chapter 8)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Linear Regression (Chapter 9)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Multiple Regression (Chapter 11)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Analysis of Covariance (Chapter 11)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Trend Analysis (Chapter 12)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Making Sense of Nondetects

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Statistical Intervals (Chapter 3)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Comparing Two Groups of Data (Chapters 5&6)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Comparing More Than Two Groups of Data (Chapter 7)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Sample Size, Power Curves, and Testing Differences in Variability

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Correlation Review (Chapter 8)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Linear Regression (Chapter 9)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Multiple Regression (Chapter 11)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Analysis of Covariance (Chapter 11)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Trend Analysis (Chapter 12)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Making Sense of Nondetects

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Statistical Intervals (Chapter 3)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Comparing Two Groups of Data (Chapters 5&6)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Comparing More Than Two Groups of Data (Chapter 7)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Sample Size, Power Curves, and Testing Differences in Variability

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Correlation Review (Chapter 8)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Linear Regression (Chapter 9)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Multiple Regression (Chapter 11)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments: Fantastic use of R and a valuable breakdown of the step-by-step proce

Analysis of Covariance (Chapter 11)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Trend Analysis (Chapter 12)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments: Very helpful to my day-to-day work and it was explained well along with valuable tools

Making Sense of Nondetects

❑ Excellent ❑ Good ☑ Average ❑ Poor

Comments: Sped through it faster than I could follow.

Statistical Intervals (Chapter 3)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Comparing Two Groups of Data (Chapters 5&6)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Comparing More Than Two Groups of Data (Chapter 7)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Sample Size, Power Curves, and Testing Differences in Variability

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Correlation Review (Chapter 8)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Linear Regression (Chapter 9)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Multiple Regression (Chapter 11)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Analysis of Covariance (Chapter 11)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Trend Analysis (Chapter 12)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Making Sense of Nondetects

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Statistical Intervals (Chapter 3)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Comparing Two Groups of Data (Chapters 5&6)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Comparing More Than Two Groups of Data (Chapter 7)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Sample Size, Power Curves, and Testing Differences in Variability

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Correlation Review (Chapter 8)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Linear Regression (Chapter 9)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Multiple Regression (Chapter 11)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Analysis of Covariance (Chapter 11)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Trend Analysis (Chapter 12)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Making Sense of Nondetects

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Statistical Intervals (Chapter 3)

❑ Excellent ❑ Good ☒ Average ❑ Poor

Comments:

Comparing Two Groups of Data (Chapters 5&6)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Comparing More Than Two Groups of Data (Chapter 7)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Sample Size, Power Curves, and Testing Differences in Variability

❑ Excellent ❑ Good ☒ Average ❑ Poor

Comments:

Correlation Review (Chapter 8)

❑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Linear Regression (Chapter 9)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Multiple Regression (Chapter 11)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Analysis of Covariance (Chapter 11)

❑ Excellent ❑ Good ☒ Average ❑ Poor

Comments:

Trend Analysis (Chapter 12)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Making Sense of Nondetects

❑ Excellent ❑ Good ☒ Average ❑ Poor

Comments:

Statistical Intervals (Chapter 3)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Comparing Two Groups of Data (Chapters 5&6)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Comparing More Than Two Groups of Data (Chapter 7)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Sample Size, Power Curves, and Testing Differences in Variability

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Correlation Review (Chapter 8)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Linear Regression (Chapter 9)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Multiple Regression (Chapter 11)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Analysis of Covariance (Chapter 11)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Trend Analysis (Chapter 12)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Making Sense of Nondetects

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Statistical Intervals (Chapter 3)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:
Could have spent a bit more time on this. Seemed to go through the material quite quickly.

Comparing Two Groups of Data (Chapters 5&6)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Comparing More Than Two Groups of Data (Chapter 7)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Sample Size, Power Curves, and Testing Differences in Variability

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:
I think I now understand power & how to calculate it!

Correlation Review (Chapter 8)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Linear Regression (Chapter 9)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Multiple Regression (Chapter 11)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:
Greatly appreciate step by step guidance ~~in use of~~ on model selection. Exercises very useful.

Analysis of Covariance (Chapter 11)

❑ Excellent ❑ Good ☒ Average ❑ Poor

Comments:
Went a bit fast on this section. A little hard to follow. Might give some additional examples of how it is used with environmental data, such as before & after testing. There was a reference to this, but working through an example would be helpful.

Trend Analysis (Chapter 12)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Making Sense of Nondetects

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Statistical Intervals (Chapter 3)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Comparing Two Groups of Data (Chapters 5&6)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Comparing More Than Two Groups of Data (Chapter 7)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Sample Size, Power Curves, and Testing Differences in Variability

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Correlation Review (Chapter 8)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Linear Regression (Chapter 9)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Multiple Regression (Chapter 11)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Analysis of Covariance (Chapter 11)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Trend Analysis (Chapter 12)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Making Sense of Nondetects

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Statistical Intervals (Chapter 3)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Comparing Two Groups of Data (Chapters 5&6)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Comparing More Than Two Groups of Data (Chapter 7)

❑ Excellent ❑ Good ☑ Average ❑ Poor

Comments:

Sample Size, Power Curves, and Testing Differences in Variability

❑ Excellent ❑ Good ☑ Average ❑ Poor

Comments:

Correlation Review (Chapter 8)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Linear Regression (Chapter 9)

☑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Multiple Regression (Chapter 11)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Analysis of Covariance (Chapter 11)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Trend Analysis (Chapter 12)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Making Sense of Nondetects

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Statistical Intervals (Chapter 3)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Comparing Two Groups of Data (Chapters 5&6)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Comparing More Than Two Groups of Data (Chapter 7)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Sample Size, Power Curves, and Testing Differences in Variability

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Correlation Review (Chapter 8)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Linear Regression (Chapter 9)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Multiple Regression (Chapter 11)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Analysis of Covariance (Chapter 11)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Trend Analysis (Chapter 12)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Making Sense of Nondetects

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Statistical Intervals (Chapter 3)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Very understandable explanations.

Comparing Two Groups of Data (Chapters 5&6)

❑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Had to miss this lecture

Comparing More Than Two Groups of Data (Chapter 7)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Again, nice application to water quality data

Sample Size, Power Curves, and Testing Differences in Variability

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Presentation was kind of rushed

Correlation Review (Chapter 8)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Linear Regression (Chapter 9)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Multiple Regression (Chapter 11)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Analysis of Covariance (Chapter 11)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Trend Analysis (Chapter 12)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Making Sense of Nondetects

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Good information, but more application would be nice.

Statistical Intervals (Chapter 3)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Comparing Two Groups of Data (Chapters 5&6)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Comparing More Than Two Groups of Data (Chapter 7)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Sample Size, Power Curves, and Testing Differences in Variability

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Correlation Review (Chapter 8)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Linear Regression (Chapter 9)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Multiple Regression (Chapter 11)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Analysis of Covariance (Chapter 11)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Trend Analysis (Chapter 12)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Making Sense of Nondetects

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Statistical Intervals (Chapter 3)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Comparing Two Groups of Data (Chapters 5&6)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Comparing More Than Two Groups of Data (Chapter 7)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Sample Size, Power Curves, and Testing Differences in Variability

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Correlation Review (Chapter 8)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Linear Regression (Chapter 9)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Multiple Regression (Chapter 11)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Analysis of Covariance (Chapter 11)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Trend Analysis (Chapter 12)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Making Sense of Nondetects

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Statistical Intervals (Chapter 3)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Comparing Two Groups of Data (Chapters 5&6)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Comparing More Than Two Groups of Data (Chapter 7)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Sample Size, Power Curves, and Testing Differences in Variability

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Correlation Review (Chapter 8)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Linear Regression (Chapter 9)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Multiple Regression (Chapter 11)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Analysis of Covariance (Chapter 11)

❑ Excellent ❑ Good ☒ Average ❑ Poor

Comments:

Don't rush this

Trend Analysis (Chapter 12)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Making Sense of Nondetects

❑ Excellent ❑ Good ☒ Average ❑ Poor

Comments:

I would've liked to see some practical examples

Statistical Intervals (Chapter 3)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Comparing Two Groups of Data (Chapters 5&6)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Comparing More Than Two Groups of Data (Chapter 7)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Sample Size, Power Curves, and Testing Differences in Variability

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Correlation Review (Chapter 8)

❑ Excellent ☑ Good ❑ Average ❑ Poor

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Linear Regression (Chapter 9)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Multiple Regression (Chapter 11)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Analysis of Covariance (Chapter 11)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Trend Analysis (Chapter 12)

☑ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Making Sense of Nondetects

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Statistical Intervals (Chapter 3)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Comparing Two Groups of Data (Chapters 5&6)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Comparing More Than Two Groups of Data (Chapter 7)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Sample Size, Power Curves, and Testing Differences in Variability

❑ Excellent ❑ Good ☒ Average ❑ Poor

Comments:

Correlation Review (Chapter 8)

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Linear Regression (Chapter 9)

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Multiple Regression (Chapter 11)

❑ Excellent ☒ Good ❑ Average ❑ Poor

Comments:

Analysis of Covariance (Chapter 11)

❑ Excellent ❑ Good ☒ Average ❑ Poor

Comments:

Trend Analysis (Chapter 12)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Making Sense of Nondetects

❑ Excellent ❑ Good ☒ Average ❑ Poor

Comments:

Statistical Intervals (Chapter 3)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Comparing Two Groups of Data (Chapters 5&6)

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❑ Excellent ❑ Good ☑ Average ❑ Poor

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❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Making Sense of Nondetects

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Statistical Intervals (Chapter 3)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Comparing Two Groups of Data (Chapters 5&6)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments: Rushed at end

Comparing More Than Two Groups of Data (Chapter 7)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Sample Size, Power Curves, and Testing Differences in Variability

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Correlation Review (Chapter 8)

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Comments:

Linear Regression (Chapter 9)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Multiple Regression (Chapter 11)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Analysis of Covariance (Chapter 11)

❑ Excellent ❑ Good ☑ Average ❑ Poor

Comments:

The steps are confusing. Perhaps it would be better to work this as an example problem and then discuss variations. Exercise was not

Trend Analysis (Chapter 12)

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

Making Sense of Nondetects

❑ Excellent ☑ Good ❑ Average ❑ Poor

Comments:

would like a better exercise

Statistical Intervals (Chapter 3)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Comparing Two Groups of Data (Chapters 5&6)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Comparing More Than Two Groups of Data (Chapter 7)

☒ Excellent ❑ Good ❑ Average ❑ Poor

Comments:

Sample Size, Power Curves, and Testing Differences in Variability

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Comments:

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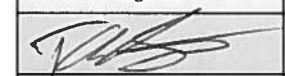
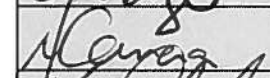
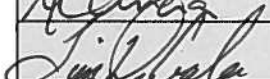
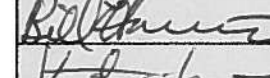
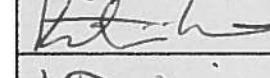
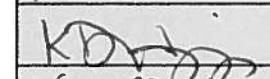
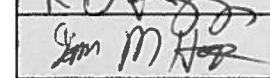
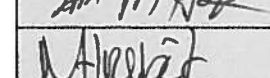
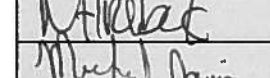
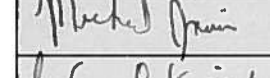
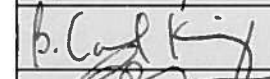
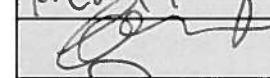
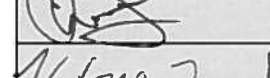
	1	Allen	Berthold	TWRI	taberthold@ag.tamu.edu	Yes	No	
	2	Katrin	Bieger	Texas A&M AgriLife	kbieger@brc.tamus.edu	No	No	
	3	Michael	Canova	U.S. Geological Survey	mcanova@usgs.gov	Yes	Yes - 5791	Owes $15 for manual
	4	Tim	Dybala	NRCS	tim.dybala@tx.usda.gov	No	Yes- 5800	
	5	Sarah	Eagle	TCEQ	sarah.eagle@tceq.texas.gov	Yes	Yes - 5788	
	6	Lucas	Gregory	TWRI	lfgregory@ag.tamu.edu	Yes	No	
	7	Javier	Guerrero	Texas A&M Kingsville	JGuer0351@aol.com	No	Yes- 5789	
	8	George	Guillen	Environmental Institute of Houston	guillen@uhcl.edu	No	Yes - Not mailed out	Owes $20 for parking
	9	Bill	Harrison	TCEQ	bill.harrison@tceq.texas.gov	Yes	No	Owes $15 for manual
	10	2 Kirstin	Hein	TWRI/TAMU	Khein@ag.tamu.edu	Yes	Yes - Not mailed out	
	11	Kori	Higgs	USDA ARS in Temple	korie.higgs@ars.usda.gov	Yes	No	
	12	Yamen	Hoque	Blackland Research & Extension Center	yhoque@brc.tamus.edu	No	Yes - not mailed out	
	13	Maria	Hrebik	USDA NRCS	mhrebik@brc.tamu.edu	No	No	
	14	Mike	Janis	TPWD	Michael.Janis@tpwd.tx.gov	Yes	Yes - 5794	
	15	B. Conrad	King	Sabine River Authority	bcking@sratx.org	Yes	Yes - 5784	
	16	Allison	Leonard	City of Houston	Allison.leonard@houstontx.gov	Yes	Yes - 5801	
	17	Chris	Lester	USDA NRCS	chris.lester@tx.usda.gov	No	No	
	18	1 Victoria	Lopez	TAMU	victorialopez424@gmail.com	Yes	Yes - 5783	
	19	Melanie	Magre	AgriLife Research	magre@sbcglobal.net	Yes	Yes - 5799	
	20	Lisa	Marshall	TCEQ GBEP	lisa.marshall@tceq.texas.gov	Yes	Yes - 5786	

	21	Joe	Martin	TCEQ	joe.martin@tceq.texas.gov	Yes	No	
	22	Anne	McFarland	TIAER	mcfarla@tiaer.tarleton.edu	Yes	Yes - 5792	
	23	Zachary	Olsen	Texas Parks and Wildlife	zachary.olsen@tpwd.texas.gov	No	Yes- 5787	
	24	Javier	Osorio	Blackland Research & Extension Center	josorio@brc.tamus.edu	No	Yes - 5785	
	25	David	Pendergrass	TIAER	pendergrass@tiaer.tarleton.edu	Yes	No	
	26	Lisa	Prcin	AgriLife Research	lprcin@brc.tamus.edu	Yes	Yes - 5796	
	27	3 Nick	Russo	TAMU/HCPID	nick.russo@hcpid.org	Yes	Yes - 5798	
	28	Laura	Ryckman	TCEQ	laura.ryckman@tceq.texas.gov	Yes	No	
	29	Augusto	Sanchez	Texas A&M Kingsville	kuas2045@tamuk.edu	No	No	
	30	Lindsay	Sansom	Texas A&M University	lsansom84@gmail.com	Yes	No	
	31	Perry	Trial	TPWD	perry.trial@tpwd.tx.gov	Yes	Yes- 5793	
	32	Susan	Wang	Blackland	swang@brc.tamus.edu	Yes	No	
	33	Mike	White	USDA ARS	mike.white@ars.usda.gov	Yes	Yes - 5797	
	34	June	Wolfe	AgriLife Research	jwolfe@brc.tamus.edu	Yes	Yes - 5795	
	35	Haw	Yen	Blackland Research & Extension Center	hyen@brc.tamus.edu	Yes	Yes - 5790	

Austin programs Sept. 29-30 will spotlight watershed stakeholder engagement

View all articles by Paul Schattenberg →

August 15, 2014

Two programs to be held Sept. 29-30 in Austin will address stakeholder engagement in watershed planning and implementation. Both programs will be held from 9 a.m.-4 p.m. in Building A, Room 172A of the Texas Commission for Environmental Quality. (Texas A&M AgriLife photo by Lucas Gregory)

AUSTIN–The Texas Water Resources Institute's Texas Watershed Planning Program is hosting two training programs for water and natural resources professionals Sept. 29-30 in Austin.

The first program, "Getting in Step – Top 10 Outreach Tips that Won't Break the Bank," will be held from 9 a.m.-4 p.m. Sept. 29 at the Texas Commission on Environmental Quality, 12100 Park 35 Circle.

Registration for this program is $30.

The second program, "Stakeholder Facilitation: Working with Stakeholders to Move the Process Forward," will be from 9 a.m.-4 p.m. Sept. 30 at the same location.

Registration for this program is $100.

Both trainings will be held in Building A, Room 172A.

Charlie MacPherson of Tetra Tech, an environmental engineering and consulting firm, will conduct the trainings on watershed stakeholder engagement. MacPherson has authored several guidebooks for stakeholder engagement for the U.S. Environmental Protection Agency.

Nikki Dictson, Texas Water Resources Institute program specialist and manager for the institute's watershed program, said the Getting in Step program will highlight practical tips and tools used to effectively engage and involve stakeholders throughout a watershed area.

Dictson said the Stakeholder Facilitation program will address determining who needs to be involved, making meetings count, diffusing conflict, making decisions using a consensus-based approach and sustaining the stakeholder group.

"Outreach is a powerful tool to get stakeholders involved early in the watershed planning process, promoting behavior change and enhancing the implementation of your programs," she said.

"Stakeholder engagement is more than just holding a public hearing or seeking public comment on a new regulation," MacPherson said. "Effective stakeholder engagement provides a method for identifying public concerns and values, developing consensus among affected parties, and producing efficient and effective solutions through an open, inclusive process."

For more information or to register for the trainings, visit http://watershedplanning.tamu.edu .

The institute is part of Texas A&M AgriLife Research, Texas A&M AgriLife Extension Service and the College of Agriculture and Life Sciences at Texas A&M University.

The Texas Watershed Planning Program is funded through a Clean Water Act nonpoint grant provided by the Texas State Soil and Water Conservation Board and U.S. Environmental Protection Agency.

-30-

Texas Water Resources Institute
Getting In Step Training – September 29, 2014

Texas Commission on Environmental Quality • Building A, Room 172A • 12100 Park 35 Circle • Austin, TX 78753

Registration Form

(Please type or print) – Complete for Participant List

First Name: ______________________________ Last Name: ______________________________

Title: ______________________________ Agency/Organization: ______________________________

Address: ____

City: ______________________ State: ________ Zip: ______________________

Phone: ______________ Fax: ______________ Email: ______________________

Any special needs (dietary or other): ____

* *

Registration fee includes: course materials and a certificate of completion.
*Please note: to be eligible for this discounted rate, please use **non-federal** funds for course registration if available.*

______ **Getting in Step - Outreach**	@	**$30.00**	**$________**
	Total Fees Submitted		**$________**

PAY BY:

☐ Purchase **Order (government/state only)** If paying by purchase order, please fax or email your registration form to Texas Water Resources Institute and submit copy to your bookkeeper for payment processing.

☐ Check - payable to Texas Water Resources Institute, **Getting In Step Account 06-215071-89534**

☐ Credit Card – **MasterCard, Visa or American Express accepted**
Mail or fax completed credit card authorization form (see below)

Send payment to:
Texas Water Resources Institute
ATTN: Getting in Step Training
1500 Research Pkwy., Suite A110
College Station, TX 77843-2118

Questions may be directed to:
Nikki Dictson
Phone: (979) 458-5915
Fax: (979) 845-0662
E-mail: n-dictson@tamu.edu

Tax I.D. 74-6000541

This registration form serves as an invoice. Separate invoices will not be mailed. There will be no refunds for cancellations. Substitutions are allowed, providing that notification is sent to Nikki Dictson (n-dictson@tamu.edu) in advance.

Texas A&M AgriLife Research
Credit Card Authorization Form

Please print or type:

Date: _____

Name (as it appears on card): _____
(Please print)

Registrant's Name(s) *(if different from above)*: _____
(Please print)

Billing Address for Credit Card: _____

Description of Purchase: Registration for Getting In Step Training
SAWS Office, San Antonio, Texas

Amount: $_____

_____MasterCard _____Visa _____American Express
(Please check type of credit card above)

Credit Card Number: **3 digit security code from back of card:**

_____ **_____**

Expiration Date: _____

Signature: _____

Telephone Number: _____

Getting In Step Workshop Evaluations - September 2014

Affiltiation	#
Environmental Group	1
Academia	1
Consultant	1
Utility	
Other: 2 - TIAER	

Government:	#
City/County	2
Regional	
State	7
Federal	

Part I. Overall Evaluation	**Fell Short**	**1**	**2**	**3**	**4**	**5**	**Exceeded**
Did this workshop meet your expecations?				3		11	

What were the most valuable aspects of this workshop?	
Real world examples and exercises where we applied what we learned.	4
The objective --> behavior change exercise	3
Experience of Charlie	2
The interactive and relaxed environment along with the flow of content made it easy to stay interested and engaged.	
The publication critique was great knowledge application.	
Having a formal process/building blocks for outreach	3
The pyramids and graphs that show how to appeal to people	
How to do low maitenance activities and get the most out of them	
Identifying objectives and creating tasks to reach objectives	
The step-by-step process for developing/evaluating overall programs	
Hands on critiques	
easy open discussion with peers about the topics	
learning about how to learn about and reach your target audience.	
Enjoyed the social marketing section.	
learning about outreach materials	

What were the least valuable aspects of this workshop?	
Learned a lot, truly enjoyed it!	
working with news media (still helpful though)	2
I think all of the program was very useful. / none	9
I enjoyed it all but personally have little use for the social media portion in my line of work.	
More time needed for behavior change	
maybe newer materials, had seen prior in Bandera	
Social media. "hire an intern" isn't very helpful advice for me.	

How do you intend to apply this new knowledge to your watershed planning efforts?
it will come forth in many different ways
will review our publications based on target audience
look at outreach material with a critical eye.
Use building blocks.
I plan to use the tools I learned today to better identify with my stakeholders and land 2
I plan to use these techniques to more accurately determine the needs of my stakeholders and landowners.
I plan on using this new knowledge for strengthening outreach quantification.
marketing stategies for grant proposals
guidance for project partners
Providing input to contractors
I can use this info for the NPS program & with the contractors I work with
To remain constant in set objectives - not carried away w/ goals and stray from tasks set to reach objectives
Re-evaluate brochure/newsletter design and layout
Develop several target audience outreach programs (geographic, donor,..)
while reviewing upcoming outreach documents
when growing current WPPs
more upfront research and planning outreach efforts
To provide advice to project coordinators and partners to improve project outreach.

Part II. Presentation Evaluation					
	Excellent	**Good**	**Average**	**Poor**	**Comments**
Building Blocks to Outreach	12	1	0	0	
What it Takes to Change Behavior	11	2	0	0	
Evaluating Your Outreach Effort	10	2	1	0	
Working with the News Media	7	5	1	0	Take them to lunch
Creating Eye-Catching Outreach Materials	11	1	1	0	
Any other comments or suggestions?					
Thank you Charlie and A&M. Please keep this quality of training coming!					
I liked doing the exercises. They broke up the presentation and were fun.					
exremely well done, great presenter					

Getting In Step – Top 10 Outreach Tips that Won't Break the Bank

Building Blocks for Effective Education and Outreach

By following six simple steps, you can conduct effective outreach. From identifying outreach and education goals to evaluating success, participants will learn about each of the six steps and how they build on each other.

What It Takes to Change Behavior

Instead of selling products or services, social marketing sells ideas, attitudes, and behaviors. In this session, participants will learn how to incorporate social marketing techniques into an outreach program to generate behavior changes. In addition, participants will learn, through a group exercise, how to identify and overcome barriers to behavior change.

Evaluating Your Outreach Effort

Continuously evaluating your outreach program will help ensure that your goals will be met. Learn how to build in evaluation during the six steps of outreach.

Working with the News Media

Learn how to effectively work with the media to get your message out.

Creating Eye-Catching Outreach Materials

Receive tips on how to create attractive outreach materials. Examples of outreach materials from around the country will also be highlighted. Finally, through a group exercise, participants will evaluate sample outreach materials by using what they've learned in the workshop.

Adjourn

• • •

AGENDA

September 29, 2014

Texas Commission on Environmental Quality
Building A, Room 172A
12100 Park 35 Circle
Austin, TX 78753

9:00 AM – 4:00 PM

• • •

Signature	#	First	Last	Agency/Organization	Email
	1	Johanna	Arendt	Water PR	jarendt@waterpr.com
	2	Randi	Belz	TCEQ	randi.belz@tceq.texas.gov
	3	Kalyn	Brymer	TIAER	brymer@tiaer.tarleton.edu
	4	Jeff	Crosby	Guadalupe-Blanco River Trust	jcrosby@gbrtrust.org
	5	Bernadette	Davis	TCEQ	bernadette.davis@yahoo.com
	6	Adeline	Fox	High Plains Water District	adeline.fox@hpwd.com
	7	Wesley	Gibson	TSSWCB	wgibson@tsswcb.texas.gov
	8	Faith	Hambleton	TCEQ	faith.hambleton@tceq....
	9	Liza	Marshall	TSSWCB	lmarshall@tsswcb.texas.gov
	10	Cindy	Rodibaugh	Devon Industries	cindryr@devonindustries.com
	11	Laura	Seaton	Travis County TNR	laura.seaton@co.travis.tx.us
	12	Leah	Taylor	TIAER	ltaylor@tiaer.tarleton.edu
	13	Travis	Tidwell	Texas Stream Team	travistidwell@txstate.edu
	14	Jessica	Uramkin	TCEQ	jessica.uramkin@tceq.texas.gov
	15	Megan	Wilson	TCEQ	megan.wilson@tceq.texas.gov
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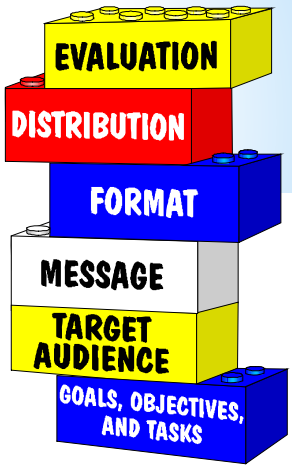
	19				
	20				
Instructor	21	Charlie	MacPherson	Tetra Tech, Inc.	

Please indicate your affiliation:	
Environmental Group	1
Academia	1
Consultant	1
Utility	
City/County Govt.	
Regional Govt.	1
State Govt.	8
Federal Govt.	
Other:	2- TIAER

Why is this training important and what do you hope to gain?
always looking for new info - last A&M water resource class was awesome
to familarize previous outreach experience & adapt to government work.
A better understanding of how to make outreach effective
To get people to be more involved and understand the Clean Rivers Program and why it is so important to water quality in Texas
I hope to gain more knowledge on how to get stakeholder buy-in to the projects that I manage across the state. As well as some ideas to possibly pass along & teach others.
How do you find out what is locally important for stakeholders?
With limited staff and budget what are the most effective methods, strategies and processes in developing a successful outreach program.
This training is important to me because I manage multiple projects that include outreach efforts. I would like to be able to give well educated advice about outreach to project coordinators.
Help my contractor's effectively with education/outreach
General knowledge about outreach practices.
This training is important to get a good foundation with my public outreach and stakeholder involvement.
I hope to gain knowledge on developing a target audience, maintaining stakeholder involvement…we always could use more money!
I want to take our main message and be able to package it for diverse target audiences including stakeholder, stakeholder committees, volunteers, academics in order to sell the value of our program.
I am more interested in quatifying outreach efforts. As well as acquire new techniques.
learning how to reach and keep stakeholder, learning how to effectively use social marketing

What are some of your current outreach challenges in your area?
money-time-interest
diversity in projects; developing positive relationships
understanding diverse audiences for different clients
Getting more funds to monitor all water bodies in Texas. Also getting people to understand the process and legal sides of programs.
$ available, public participation, distrust of the gov.
Conveying message correstly (as intended) to the diverse landowner bases across the river basin
where/what to focus on with limited staff
Getting stakeholders to come to meetings and keeping them engaged.
how best to help?
not sure, just started the job.
We tend to see public involvement later on in our projects than we would like.
Finding a target audience, maintaining involvement, social marketing for WPP
Connecting interested volunteers with stakeholder committees and WPP coordinators in order to get them involved in watershed protection efforts.
Implementation of new regulation, educating people about their water source, teaching people about water conservation

Getting In Step – Top 10 Outreach Tips that Won't Break the Bank

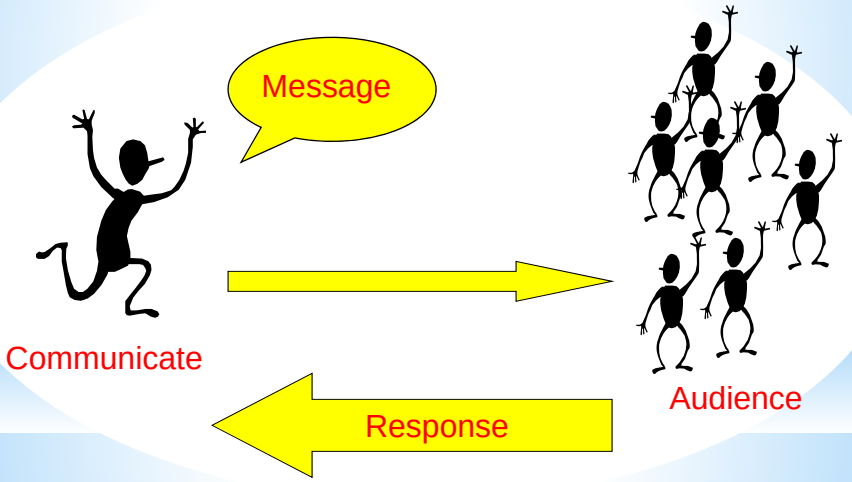


Charlie MacPherson, Tetra Tech, Inc.

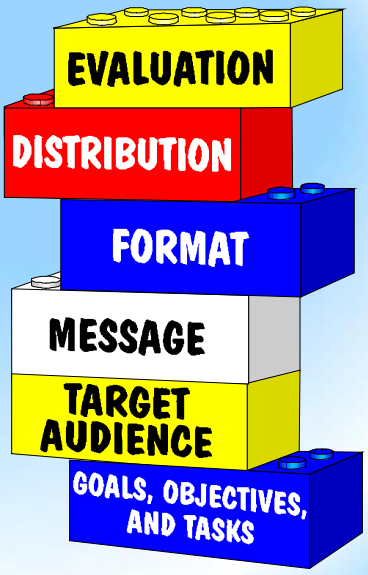
Agenda

Topics
Introductions, Course Objectives, Expectations
Building blocks: Goals, target audience, messages
Building blocks: social marketing for behavior change
Lunch
Building blocks: Formats and distribution: working with the news media for results
Building blocks: Evaluating your outreach efforts
The Good, the Bad, the Ugly
Adjourn

What Is Outreach?



Outreach Building Blocks



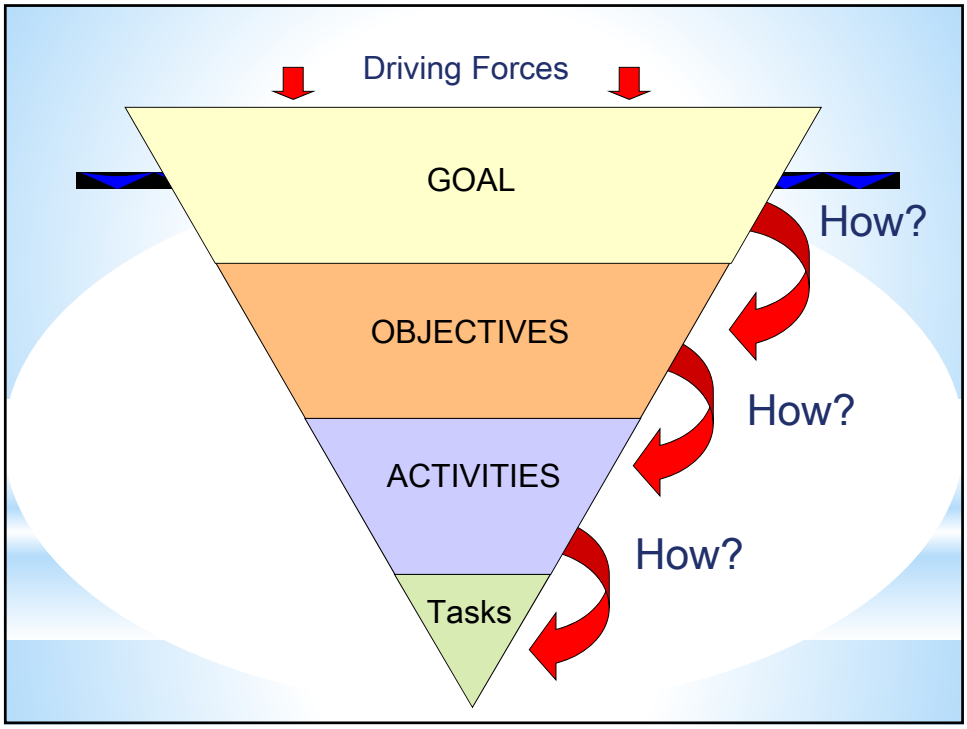
Building Block

Driving Forces
Goals and Objectives

5

Tip # 1

Ask yourself why you're doing this.



Building Block

Identify your target audiences

Who Do We Need to Reach?

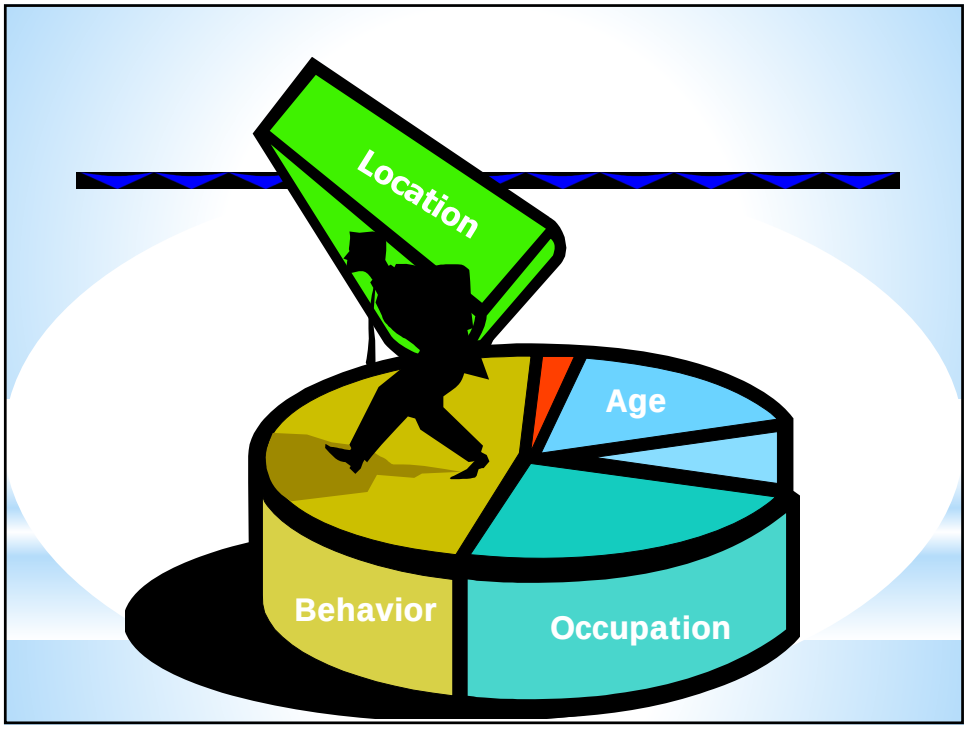
- Tribal Council members
- Tribal staff (public works, roads department, utilities, Env. Dept. etc.)
- Ranchers
- Industry
- Landowners
- Youth
- Others

Target Audience

Information needed

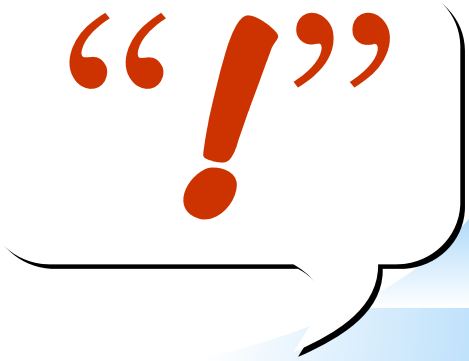
- Knowledge of the message
- Communication channels
- Concerns/values
- Attitudes/perceptions

For the Sake of a Healthy Family ...



Building Block

Develop your message



Tip # 2

Answer "what's in it for them?"

WE PAY YOU TO LOSE WEIGHT

36 People Needed Who are Serious About Losing Weight!

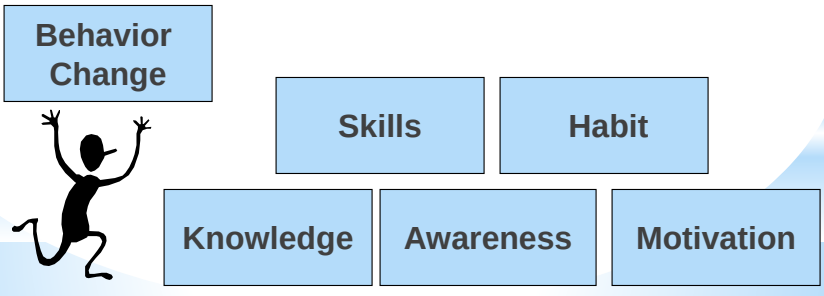
- Eat Your Favorite Foods Every day
- All Natural – No Drugs
- Doctor Recommended
- Permanent Weight Loss

Call MELANY (555) 266-2079

What is Social Marketing?

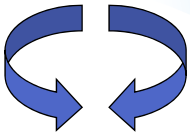
"Using marketing principles and techniques to influence a target audience to voluntarily change a behavior for the benefit of individuals, groups or society as a whole."

Steps to Behavior Change



Messages: Focus on Benefits

Beneficial exchange



- Real Benefits
  - Create jobs
  - Adds resources (technical and financial)
  - Build knowledge base
  - Protect health
- Perceived Benefits
  - People expect it
  - Everyone else is doing it (Other tribes are doing this)
  - I'll get rewarded

Remember the 3 H's

Health

- Drinking water
- swimming
- children's health

Home

- Property values, flooding

Heritage

- Historical significance, future generations

Messages: Know the Barriers

Physical Barriers
- Too hard to do
- Turnover of members
- Lack of awareness

Economic Barriers
- Added costs
- No cost savings
- Not enough resources

Education Barriers
- Don't know how to do it

Social/Psychological Barriers
- Fear of new technologies
- Against tribal or social norms
- Fear of doing something different
- Other priorities

Tools for Changing Behaviors

- Commitments
- Prompts
- Incentives
- Tangible actions and services

Prompts

- Behavior reminders
- Use at "point-of-sale"
- Target specific behaviors

21

Incentives

- Money, money, money, money
- Free stuff
- Recognition
- Disincentives: punish negative behavior (e.g., user fees)

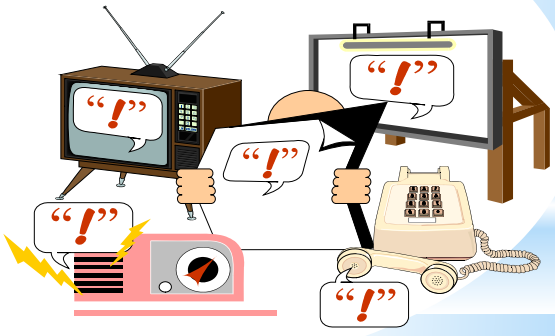
22

Tip #6

Check in with your target audience throughout the process

Building Blocks

Develop and distribute your formats



Format

Print	"Stuff"	Events
Newsletters	Calendars	Festivals
Fact sheets	Magnets	Clean-ups
Flyers	Bumper stickers	
Magazine articles	Tote bags	Stenciling
Posters, displays	Frisbees	Training
Billboards	Lapel pins	Mini-courses
Transit cards	Stickers	Seminars
Electronic media		

25

Tip # 3

Copy Someone Else

waye.don@epa.gov

Tip #5

Pick a few things and do them well and often.

Tip #6

Take the Media to Lunch

The Media

News Media	Electronic media
Radio	Listservers
Newspaper	Web sites,
Television	CD-ROMs
Magazines	

30

Where Does the Public Obtain Information on Water Issues?

Local television news	47%
Local newspapers	27%
Radio news programs	18%
Friends, family, neighbors	92%
Environmental mailings	
Community leaders	1%

Source: Lake Research Inc; for the Upper Mississippi Basin

Tips for working with reporters

- Establish a relationship beforehand
- Return calls, respect deadlines
- Be open and accessible
- Provide appropriate background info
- Be proactive rather than reactive
- Provide feedback on coverage

32

Tip #6

Ask for free stuff

Things to ask for…

- Free printing
- Free give aways
- Free advertising
- Free web design and hosting
- Free food and beverages

Format and Distribution

Brochures and Fact Sheets

- Can be distributed widely
- Provide more detail on issues

Local Newspapers

Community newsletters

Format and Distribution

Events and Activities

- Community meetings
- Presentations to tribal council, residents
- BMP demo field days
- Educational programs for children
- Watershed or BMP signage
- Festivals
- Stream clean ups
- Clean up illegal dump sites

Tip #9

Play Piggyback

Consider the messenger

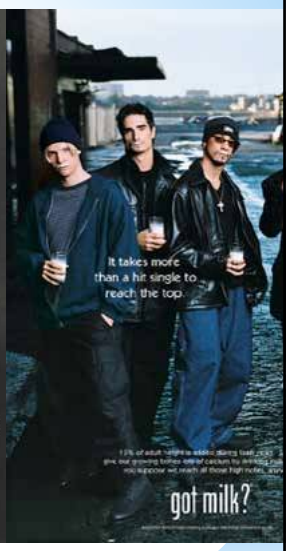
A word about social media…

Tip #9

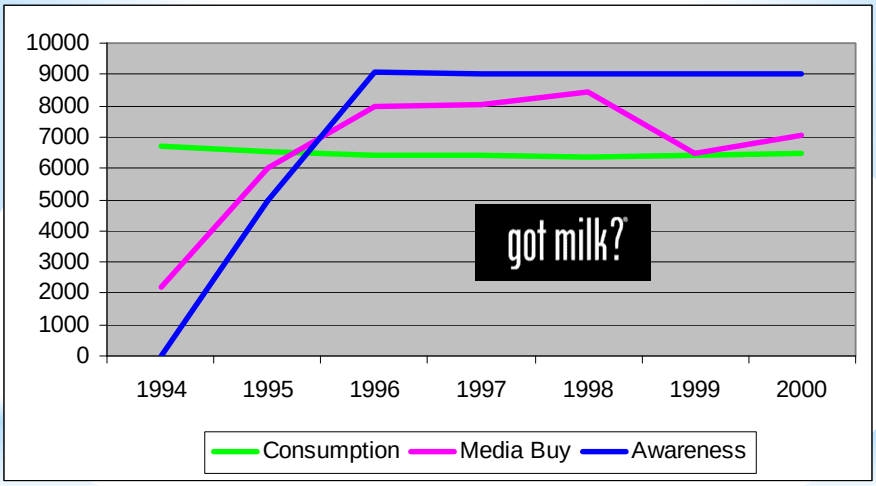
Can you say intern?

Evaluate Your Efforts

Magazine ads



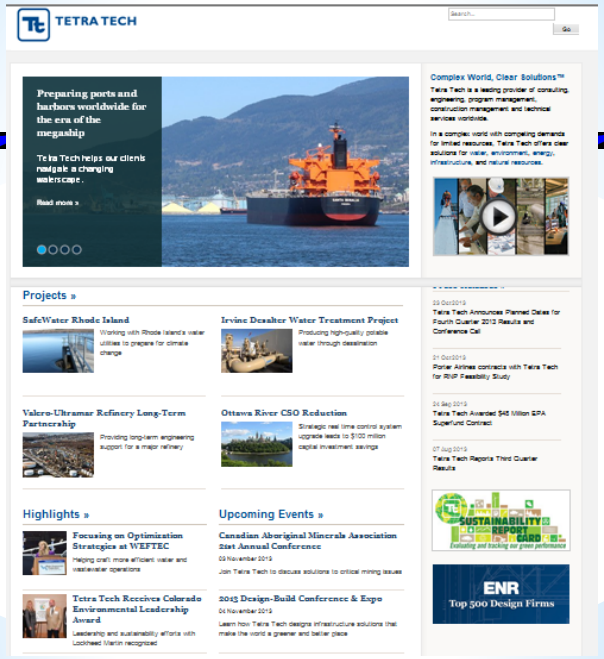
Got Behavior Change?



Social Change Group

AED

Center for Social Marketing and Behavior Change



Tip #10

Ask questions that will really help you to improve your products and your program.

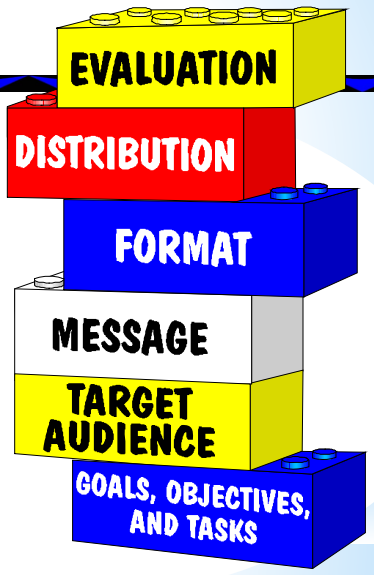
Recent Survey of Tampa Residents

- Only 19% knew that they lived in a watershed.
  - No - 35%
  - Don't know - 46%
- 36 percent of respondents left their pet's waste the ground.

Top Ten Review

1. Ask yourself why you're doing this.
2. Answer "what's in it for them?"
3. Copy someone else.
4. Pick a few things and do them well.
5. Take the media to lunch.
6. Check in with your target audience throughout the process
7. Ask for things.
8. Play piggy back.
9. Recruit interns for social media.
10. Ask the right questions to evaluate your outreach efforts.

Outreach Building Blocks



The Good, The Bad, and The Ugly

Eye-Catching Outreach Materials

- Design
- Text
- Hooks
- Graphics

Eye-Catching Outreach Materials

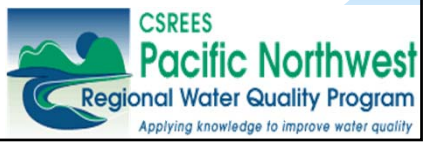
Design

- Identity
- White Space
- Typography (DON'T USE ALL CAPS; IT'S HARD TO READ!)
- Restraint

Eye-Catching Outreach Materials

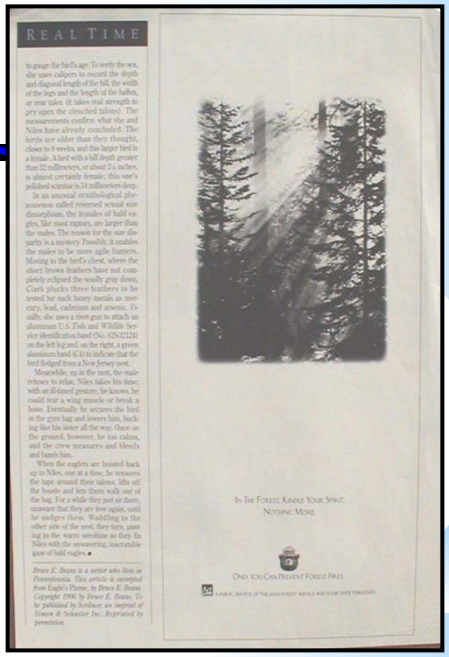
Establish an identity

- Develop a logo
- Be consistent
- Use it everywhere!



White space: how to get it

- Use scholar margins
- Use large margins around graphics
- Use pull quotes
- Start your chapters one third of the way down the page.
- Don't justify text
- Break text up into columns



Achieving Cleaner Waters Across America

Over the next decade, we must continue efforts to reduce pollution from industry, sewage treatment plants, and polluted runoff. The goal of clean, safe water will require state and locally led efforts to identify and clean up the lakes, rivers, and streams that are still polluted. Using flexible, common-sense guidelines backed by tough state water quality standards and driven by partnerships between government and private sector organizations at every level, this generation of Americans can be the first in more than a century to attain fishable, swimmable, and drinkable water in every community.

Liquid Assets 2000: America's Water Resources at a Turning Point provides a snapshot of the economic value of clean water, the problems we face in the new millennium, and the actions we must take to protect and restore the nation's water resources. This report explores the current condition of the nation's water resources and demonstrates the link between clean water and a strong economy by focusing on specific businesses and activities that rely on clean water.

There are a myriad of exciting efforts under way to help improve water quality in communities throughout the country. America's water resources are at a turning point. The choice of clean water for all Americans is ours.

"Every child deserves to grow up with water that is pure to drink, lakes that are safe for swimming, rivers that are teeming with fish. We have to act now to combat pollution challenges with new protections to give all our children the gift of clean, safe water in the 21st century."

— President William J. Clinton

- Use scholar margins
- Use large margins around graphics
- Use pull quotes

This text is full justified and it looks really cramped. It makes it harder to read because the eye loses its place on the next line. Don't do it unless you are absolutely short of available space. It also creates funky spaces if you use long words like multidisciplinary in a sentence.

This text is left justified and it's easier to read. Just because you can full justify you shouldn't. See how this text creates little bits of white space at the end of each line, creating some breathing space? It's quite refreshing. And you can still use words like multidisciplinary in a sentence and it won't look funky.

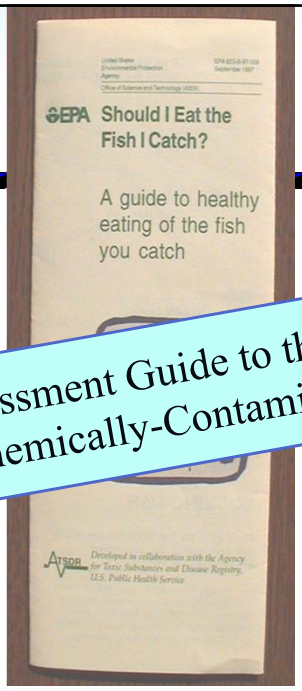
Eye-Catching Outreach Materials

Text

- Tell a story
- Don’t use acronyms
- Simplify
- Use examples
- Use active voice

Eye-Catching Outreach Materials

- Hooks
- Piercing questions
- Startling facts
- Quizzes
- Contests
- Humor
- Games



A Risk Assessment Guide to the Consumption of Chemically-Contaminated Fish

Eye-Catching Outreach Materials

Graphics

- Less is more
- Clipart is free
- Use photos of people
- Use only good photos
- Use kids' artwork

Signature	#	First	Last	Agency/Organization	Email
	1	Danica	Adams	Center for Research in Water Resources	danica.adams@utexas.edu
	2	Morgen	Ayers	Bandera County River Authority and Groundwa	Mayers@bcragd.org
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	4	Kalyn	Brymer	TIAER	brymer@tiaer.tarleton.edu
	5	Wesley	Gibson	TSSWCB	wgibson@tsswcb.texas.gov
	6	Faith	Hambleton	TCEQ	tceq.
	7	Liza	Marshall	TSSWCB	lmarshall@tsswcb.texas.gov
	8	Sarah	Rountree Schless	Bandera County River Authority and Groundwater I	srs@bcragd.org
	9	Laura	Seaton	Travis County TNR	laura.seaton@co.travis.tx.us
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	11	Jessica	Uramkin	TCEQ	
	12	Mary	Van Zant	Texas State University	mw36@txstate.edu
	13	Megan	Wilson	TCEQ	megan.wilson@tceq.texas.gov
	14	Bernadette	Davis	TCEQ	bernadette.davis@tceq.texas.gov
	15	Sarah	Schlessinger	BCRAGD	srs@bcragd.org
	16	Morgen	Ayers	"	
	17				
	18				
	19				
	20	Nikki	Dictson	TWRI	
Instructor	21	Charlie	MacPherson	Tetra Tech, Inc.	

WORKING WITH STAKEHOLDERS TO MOVE THE PROCESS FORWARD

September 30, 2014

Charlie MacPherson

Tetra Tech, Inc.

OBJECTIVES

- Highlight tools used to effectively identify, engage, and involve stakeholders

AGENDA

Topics
Introductions, Course Objectives, Expectations
Part 1: Setting Up for Success
Part 2: Getting Stakeholders to the Table
Lunch
Part 3: Facilitation 101
Part 4: Keeping the Ball Rolling
Adjourn

http://water.epa.gov/polwaste/nps/upload/stakeholderguide.pdf

PART 1: SETTING UP FOR SUCCESS

1. Context/driving forces
2. Goals
3. Stakeholder analysis
4. Roles and responsibilities
5. Organizational Structures
6. Decision-making methods

CONTEXT/DRIVING FORCES

- What are the driving forces?
- Do you need stakeholder involvement?
- Are there existing groups out there you can tap in to?
- What kind of involvement do you need?

GOALS

- What do you hope to achieve?

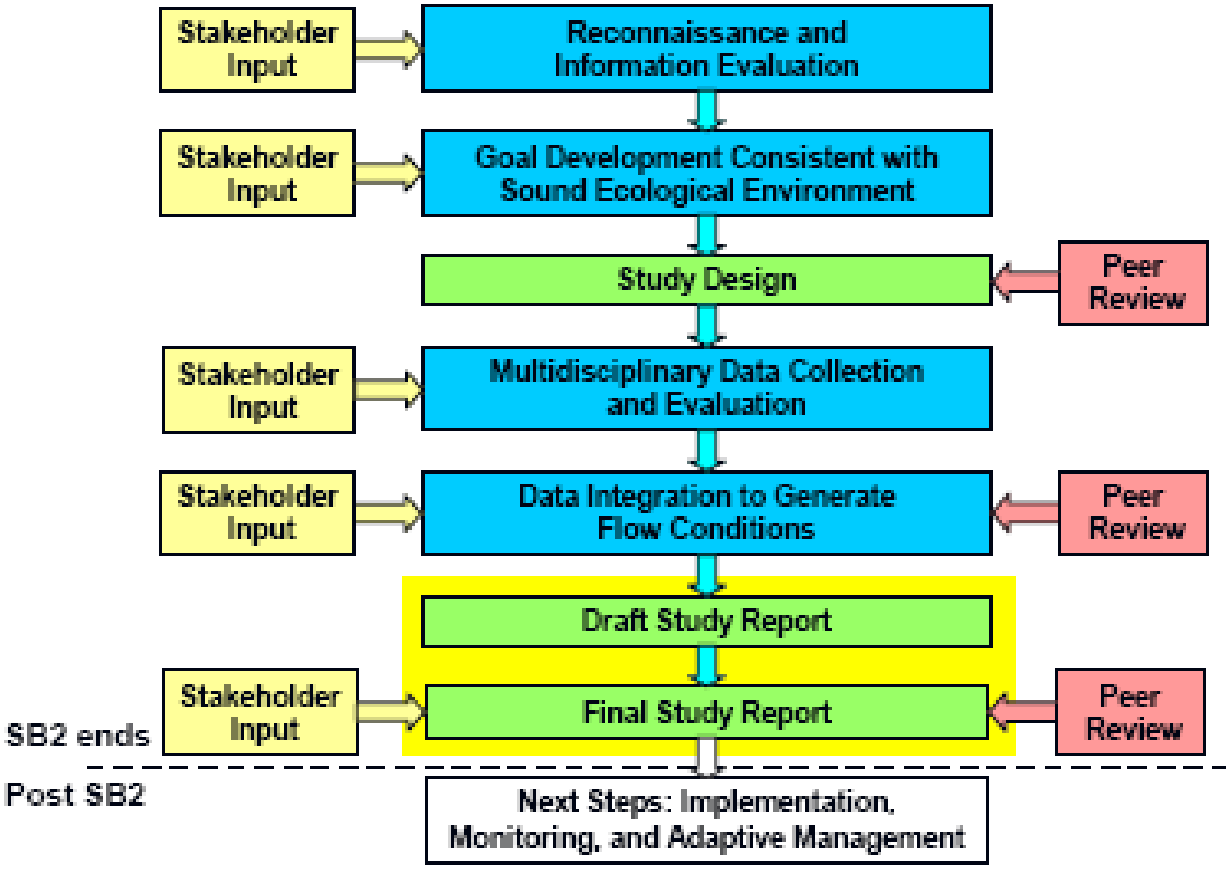
STAKEHOLDER ANALYSIS

- **Who needs to be involved?**
  - People making decisions
    - Local elected officials
    - Regulators
  - People affected by decisions
    - Community organizations (volunteer monitoring groups)
    - Landowners
    - Key business groups

ROLES AND RESPONSIBILITIES

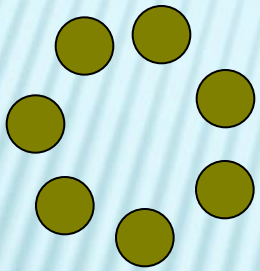
- What is their role?
- What resources are available?
- Are they expected to develop any products?

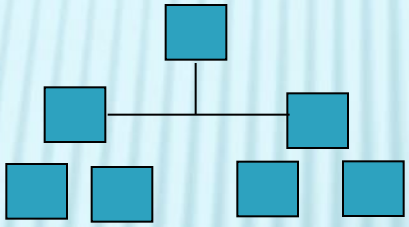
Stakeholder Input Opportunities



ORGANIZATIONAL STRUCTURES

- Formal vs. informal





PLUM CREEK WATERSHED PARTNERSHIP

MAKING DECISIONS

- Decide and notify
- Gather input, then decide
- Limited delegation
- Consensus

$64,000 QUESTION

- How do you create awareness of values, interest in the process, and bring them to the table?

PART 2: GETTING STAKEHOLDERS TO THE TABLE

- Understand their concerns/needs
- Match their needs to your goals
- Invite them to participate

MATCH THEIR NEEDS TO YOUR GOALS

- Craft messages specific to *each* target audience
- Why should they care?
  - “Share your concerns ”
  - “Take advantage of this opportunity”
  - “Voluntary program”
  - “Financial resources available ”
  - “You have an equal vote at the table”

INVITE THEM TO PARTICIPATE

- Write a personal letter
  - Include their key issues, address potential barriers
- Follow up with a phone call
- Follow up with a visit if necessary

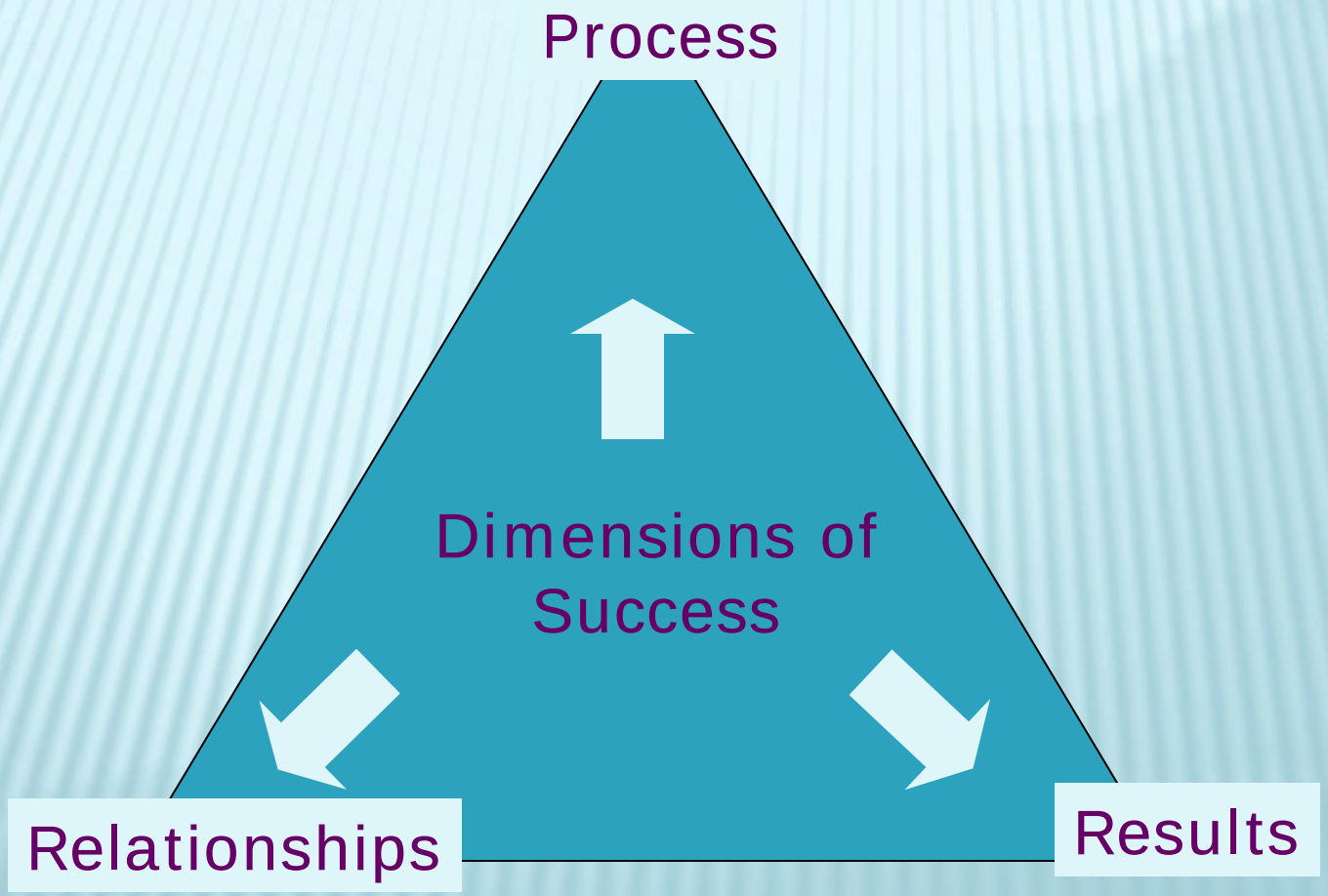
INVITATION TO JOIN THE ARMADILLO WATERSHED PARTNERSHIP

You are the new project team for the Armadillo Watershed Partnership. You want to hold a public meeting in the Armadillo watershed to solicit input on the development of a watershed management plan. This is the first meeting. How do you get **landowners, elected officials, local businesses, state regulatory agencies** to come?

PART 3: FACILITATION 101

- Elements of Effective Meetings
- Making Decisions
- Building an Agreement
- Diffusing/Resolving Conflict

ELEMENTS OF A SUCCESSFUL MEETING (OR PARTNERSHIP)



90 percent of all problems in meetings are process problems.

ELEMENTS OF EFFECTIVE MEETINGS

- Clear purpose
- Context/driving forces
- Participants
- Goals
- Topics
- Attendees/roles
- Room arrangement
- Decision-making method
- Detailed agenda

WHAT'S YOUR ROLE?

- Participate
- Manage the process
- Manage the information
- Make decisions

ROLE OF THE FACILITATOR

- Designs an agenda to achieve the goals
- Sets ground rules
- Helps the leader and participants focus on the content
- Makes sure everyone has a chance to participate
- Defends others from personal attack
- Make suggestions on how to proceed
- Builds agreements

SAMPLE GROUND RULES

1.
2.
3.
4.
5.

ROOM SET UP

- Semi-circle vs. classroom
- U-shape works well
- Table rounds for small group discussions
- Group memory (flip charts, overhead transparencies, etc)

MAKING DECISIONS BY CONSENSUS

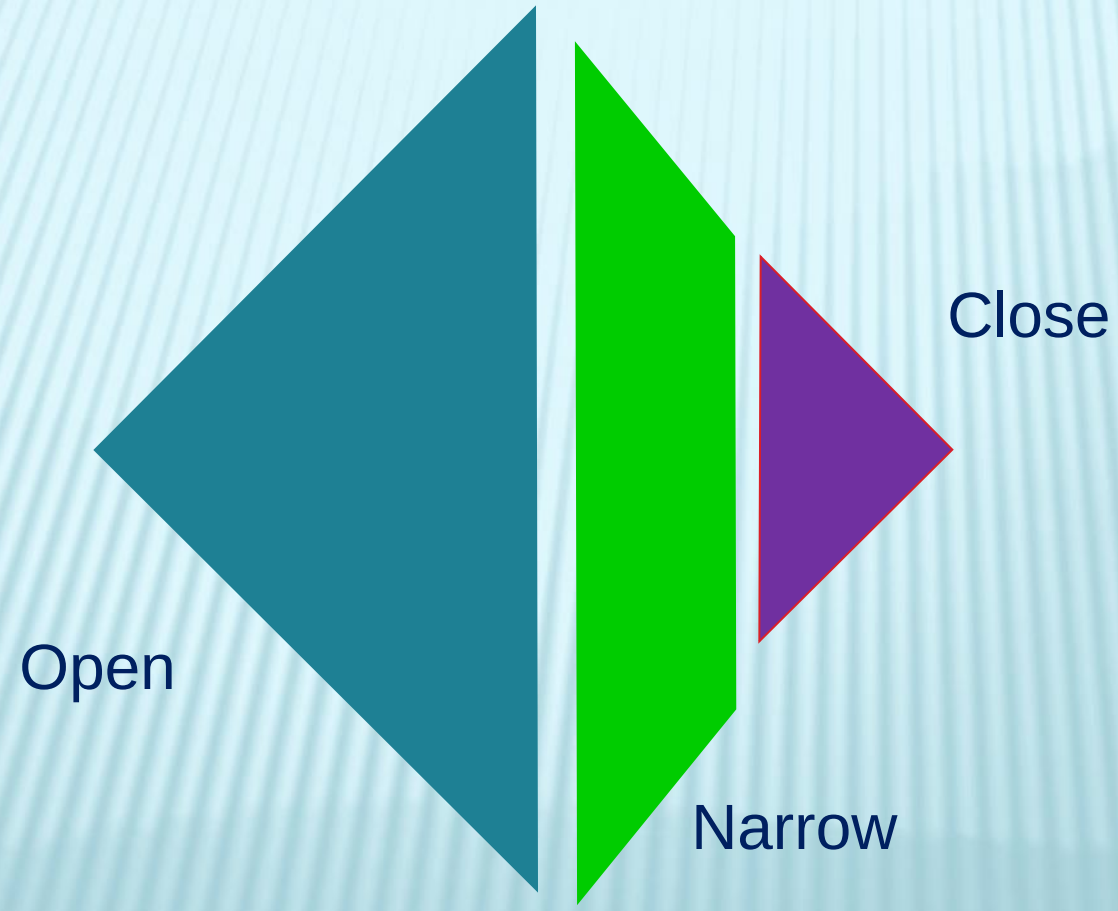
- Consensus is NOT the majority vote.
- Consensus is a decision we can live with.
- Include a fall-back position.

BUILDING AN AGREEMENT

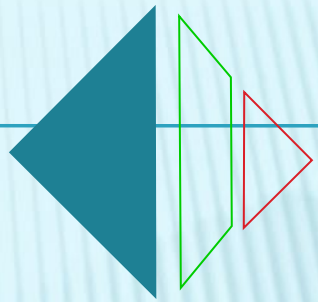
OPEN-NARROW-CLOSE

- Open: Gather information
- Narrow: Organize information
- Close: Select the best approach and reach agreement

OPEN-NARROW-CLOSE



OPEN

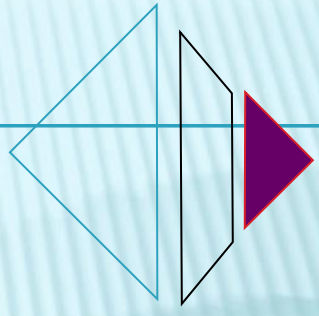


- Propose (limited opening)
  - Someone leads off a discussion
- List (moderate opening)
  - Let’s list 4 or 5 items to be addressed
- Brainstorm (wide opening)
  - Let’s get our ideas out before considering them
- Clarify

NARROW

- Combine obvious duplicates to eliminate redundancy
- Prioritize using N/3 (number of ideas and divide by 3 = the number of votes each person gets)
- Advocate (allow anyone to advocate for an issue)

CLOSE



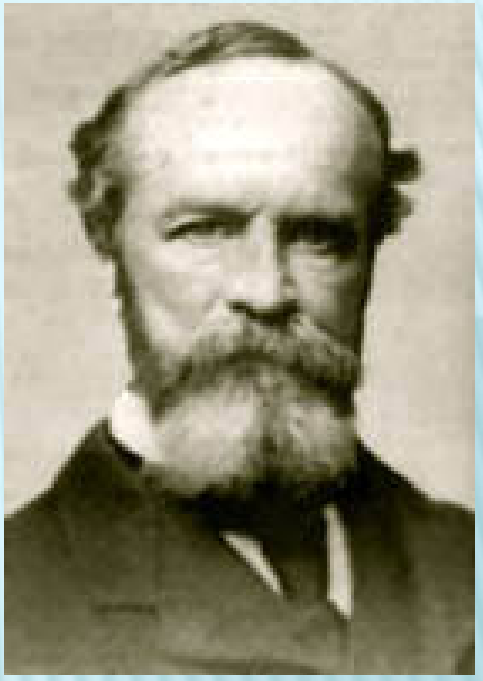
- Negative poll (is there anyone not willing to take #5 off the list?)
- Build up/eliminate (what can we add to option B to make it work for you?)
- Straw poll (let’s get a quick show of hands of how many people want to keep this one”
- Both/and (Can we go with both items?)

WHAT TO WATCH FOR

- Possible agreements
- Questions
- Process suggestions
- Creative ideas
- Energy level
- Possible conflict

WHAT IS CONFLICT?

- People have different points of view
- People don’t believe it’s possible to reach agreement
- Each participant feels there is a win/lose solution



“Whenever you're in conflict with someone, there is one factor that can make the difference between damaging your relationship and deepening it. That factor is attitude.”

-William James

UNDERSTAND SOURCE OF THE CONFLICT

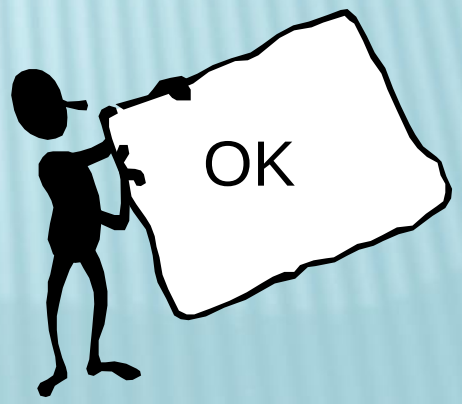
Term	Definition	Example
Issue	A point or matter of discussion, debate or dispute	Streambank fencing
Position	A stance one takes as it relates to an issue	I refuse to put up a fence to keep my cattle out of the creek
Interest/ Need	The underlying concern or need of a person	My cattle need access to water. I can't afford to purchase the materials.

WORKSHEET
UNDERSTAND SOURCE OF THE CONFLICT

Term	Definition	Example
Issue	A point or matter of discussion, debate or dispute	
Position	A stance one takes as it relates to an issue	
Interest/ Need	The underlying concern or need of a person	

RESOLVING CONFLICT

- Restate each party's position and empathize
- Discover underlying interests
- Ask for proposed options without commitment
- Build small agreements



DIFFICULT BEHAVIORS

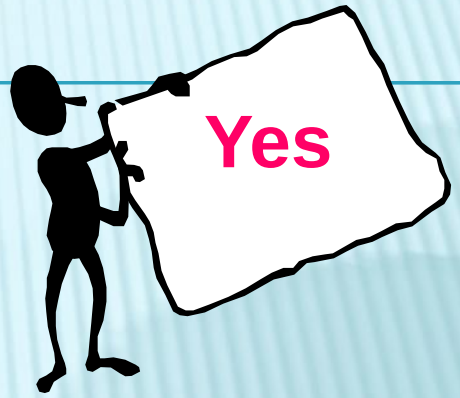
- The Latecomers
- The Early Leavers
- The Broken Records
- The Doubting Thomases
- The Headshakers
- The Dropouts
- The Whisperers
- The Loudmouths
- The Attackers
- The Interpreters
- The Gossipers
- The Know-it-Alls
- The Backseat Drivers
- The Busybodies
- The Interrupters

INTERVENTIONS

- Body Language
- Boomerang
  - (throw question back to the group)
- Enforce Agreements
  - (Remember we said we were going to…?)
- Accept and Defer/Deal
  - (I understand you're frustrated. Can you hang in for 10 more minutes?
- Use Humor

PART 4: KEEPING THE BALL ROLLING

MOVING THE BALL



- Bring in new members
- Focus on issues important to them
- Give praise (thank you notes, awards)
- Meet only when it’s necessary
- Start and end meetings on time

MOVING THE BALL

- Recognize differences
- Communicate clearly and often
- Be honest
- Build on successes
- Commit resources to complete activities
- Integrate stakeholders into the rest of the watershed management process

MOVING THE BALL

- Piggyback onto other efforts
- Show progress to the group
  (data collected, newspaper clippings)
- Bring Food

famous

CHARLIE'S LEMON POUND CAKE

- 4 eggs
- 3 C sugar
- 3 C flour
- 2 sticks butter
- ¼ C Crisco
- 1 tsp lemon extract
- 1 C milk

- Cream butter, Crisco and sugar. Add eggs one at a time. Add lemon extract. Add flour and milk, alternating each until well blended. Put in a greased tube pan and in a cold oven. Turn on to 325 degrees for 1 and ½ hours.

Icing

- Melt 2 tb butter in pan. Add juice of 1 lemon. Add 1 C confectioner's sugar. Drizzle over cake while still warm.

MOVING THE BALL

1.

2.

3.

4.

5.

MOST OF ALL, YOU NEED PATIENCE

Stakeholder Facilitation - Working with Stakeholders to Move the Process Forward

Introductions, course objectives and expectations

Part 1: Setting Up for Success

- Context/driving forces
- Stakeholder analysis
- Roles and responsibilities
- Organizational structures
- Decision-making methods

Part 2: Getting Stakeholders to the Table

- Concerns/needs
- Matching needs to goals
- Encouraging participation

Part 3: Facilitation 101

- Elements of effective meetings
- Making decisions
- Building an agreement
- Diffusing/resolving conflict

Part 4: Keeping the Ball Rolling

- Motivating existing members
- Bringing in new members

Adjourn

• • •

AGENDA

September 30, 2014

Texas Commission on Environmental Quality
Building A, Room 172A
12100 Park 35 Circle
Austin, TX 78753

9:00 AM – 4:00 PM

• • •

Texas Water Resources Institute
Stakeholder Facilitation Training – July 22, 2014

San Antonio Water Systems • 2800 U.S. Hwy 281 North • San Antonio, TX 78212

Registration Form

(Please type or print) – Complete for Participant List

First Name: ______________________________ Last Name: ______________________________

Title: ______________________________ Agency/Organization: ______________________________

Address: ____

City: ______________________ State: ________ Zip: ______________________

Phone: ______________ Fax: ______________ Email: ______________________

Any special needs (dietary or other): ______________________________________

* *

Registration fee includes: course materials and a certificate of completion.
*Please note: to be eligible for this discounted rate, please use **non-federal** funds for course registration if available.*

______ **Stakeholder Facilitation Training**	@	**$100.00**	**$**________
	Total Fees Submitted		**$**________

PAY BY:

☐ Purchase **Order (government/state only)** If paying by purchase order, please fax or email your registration form to Texas Water Resources Institute and submit copy to your bookkeeper for payment processing.

☐ Check - payable to Texas Water Resources Institute, **Stakeholder Facilitation Account 06-215071-89532**

☐ Credit Card – **MasterCard, Visa or American Express accepted**
Mail or fax completed credit card authorization form (see below)

Send payment to:
Texas Water Resources Institute
ATTN: Stakeholder Facilitation Training
1500 Research Pkwy., Suite A110
College Station, TX 77843-2118

Questions may be directed to:
Nikki Dictson
Phone: (979) 458-5915
Fax: (979) 845-0662
E-mail: n-dictson@tamu.edu

Tax I.D. 74-6000541

This registration form serves as an invoice. Separate invoices will not be mailed. There will be no refunds for cancellations. Substitutions are allowed, providing that notification is sent to Nikki Dictson (n-dictson@tamu.edu) in advance.

Texas A&M AgriLife Research
Credit Card Authorization Form

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Date: _____

Name (as it appears on card): _____
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Registrant's Name(s) *(if different from above)*: _____
(Please print)

Billing Address for Credit Card: _____

Description of Purchase: Registration for Stakeholder Facilitation Training
SAWS Office, San Antonio, Texas

Amount: $_____

_____MasterCard _____Visa _____American Express
(Please check type of credit card above)

Credit Card Number: **3 digit security code from back of card:**

_____ **_____**

Expiration Date: _____

Signature: _____

Telephone Number: _____

Please indicate your affiliation:	
Environmental Group	1
Academia	2
Consultant	
Utility	
City/County Govt.	
Regional Govt.	2
State Govt.	9
Federal Govt.	
Other:	2 - TIAER

Did this workshop meet your expectations?					
(Fell Short)				*(Exceeded)*	*No Answer*
1	**2**	**3**	**4**	**5**	
			3	9	1

What were the most valuable aspects of this workshop?
I thought that everything was valuable but I really liked the "open narrow closed" approach
Engaging conversation and open environment
tips!!!
Honest and sincere discussions
The open forum which we can talk and find solutions to problems which we have faced
Stories and free discussion afterwards - althoughthat would not have worked w/o the framework of the rest of the workshop
How to deal with difficult people tips and "open narrow closed"
Knowing how to get ideas (different approaches)
Learning how to manage conflict/difficult behaviors 2
Charlie
Creating a list of tools/skills to use in a stakeholder discussion
Just to name a few: All the efficiencies - considerations of key people including those who have ability to impede; Showing stakeholders where specifically they fit in; People like to be involved in funding; Reasons the stakeholders should care; being transparent; ground rules; open-narrow-closed; conflict resolution
Getting stakeholders to the table
Disscussions of stakeholder facilitation with Charlie MacPhearson. Open discussion has been very fun and awesome. A lot of attention to specific issues with her audience.
I was only in the first half of the workshop, but facilitating meetings was very helpful

What were the least valuable aspects of this workshop?	
I did not consider any aspects not valuable.	5
Not enough time!	
The content of the workshop was great, however, it would be helpful for out of town participants if the end time could be altered to avoid rush hour traffic	
I think it would be difficult to do the "dots" at meeting as well as lay ground rules	
Group planning - only because I am beyond that stage. I will need that info again next time, however.	

Presentation Evaluation					
	Excellent	*Good*	*Average*	*Poor*	*No Answer*
Part I: Setting Up for Success	7	6	0	0	0
	Excellent	*Good*	*Average*	*Poor*	*No Answer*
Part II: Getting Stakeholders to the Table	11	1	1	0	0
How do you locate them? Pre-planning before meeting - how?					
	Excellent	*Good*	*Average*	*Poor*	*No Answer*
Part III: Facilitation 101	12	0	0	0	1
loved your tips!					
	Excellent	*Good*	*Average*	*Poor*	*No Answer*
Part IV: Keeping the Ball Rolling	9	3	0	0	1
I would be interested in learning more about the back end of the stakeholder facilitation in terms of data management and utilization.					

Additional Comments
This training was so much better than all the trainings I've been to since starting at TIAER full time. It definitely set the standards high for all the trainings I'll go to in the future! I hope to attend any other pertinent trainings you facilitate.
Charlie, Thank you for the pound cake. -Wesley Gibson
AWESOME! :)
Thank you! Great execution of presentation

Thank you for all your insight and tips today. I am confident that our team will have more success in our public meetings when putting this training to use.

Please indicate your affiliation:		
Environmental Group		
Academia		
Consultant		
Utility		
City/County Govt.		
Regional Govt.	1	
State Govt.	10	
Federal Govt.		
Other:	2 -TIAER	

Why is this training important and what do you hope to gain?
Effective Collaboration techniques
I attend multiple stakeholder meetings for projects that I manage, and I hope to gain the skills to keep stakeholders engaged and interested.
Get some ideas for better contact stakeholders and keep them involved.
I lead a stakeholder effort. I hope to gain reminders on how to keep meetings more fun.
New insights
This training is important because I work with grantees that need stakeholder input to have the best possible NPS pollution management project - I hope to learn more about getting the right stakeholders involved.
I work with stakeholders to achieve the goals of my position. I hope to broaden my understanding of facilitation techniques.
Information to help contractors with stakeholder engagement.
I hope to gain a better understanding of how to effectively communicate with and engage stakeholders.
How to keep audiences engaged and excited about projects
More stakeholder process forward
Knowledge/skills to help facilitate the meetings
How to steer stakeholders in the direction I want

What are your greatest challenges in working with stakeholders?	
Goals	
Getting them to come and stay interested in presentations	2
Get some ideas for better contact stakeholder and keep them involved	
Timing. Having all the science prepared on time for meeting, explaining the results to them, and leaving room for discussion and decisions to be made.	
Most come in with a chip on their shoulder	
I'm new - but I'd imagine keeping them engaged.	
I need to convince stakeholders that then care about the topics at hand	
Not sure, too new to have a full grasp of challenges.	
Understanding what stakeholders really want from me and how to satisfy that need.	
Identifying with me stakeholders when there is a clear age gap.	
Getting them to come to all meetings - claim 3rd or 2nd meeting that this is the first they knew/heard of meeting	
Diffusing conflicts	
Keeping the meetings calm	
Getting big groups of stakeholders to come to meetings and jumpig on the band wagon.	

What tools or methods do you currently use to effectively engage and involve stakeholders?
Casual conversation at networking and consevation/water quality events. We have educational programs and literature.
My project coordinators mainly use website, email, and press releases
letters, phone calls, fact sheers, word of mouth
open discussion, presentation, survey
not really involved - yet hope to be with more info. Need more advance notice - clear path for communication
openness - making sure to let them know how imprtant they are to the process - letting them know what's in it for them
phone calls and listening sessions
None 2
I try to find a common ground or interest and make conversation from that and lead into my topic of purpose.
Do my job.
mail invitations, email - listserve, newspaper
I don't (contract it out)
Bring in guest speakers, keep in constant contact, make things personal, open questions. Also conference calls and updates.

What types of stakeholder response have you seen with the above tools or methods?
Some requests for continued interaction
I am new to the projects that I work on so I have not been to multiple meets for each project yet
both good/bad
positive responses
w/o - anger, mistrust
When they have ownership they seem to be engaged longer
Some people are responsive and receptive, others are not engaged
N/A
I have had mostly positive responses, but I still feel that my stakeholders don't take me seriously and have to reaffirm with I say with my coworkers.
People come to second meetin but not first meeting - I want people to come to all meetings
None
Some that are effective and others went in the wrong direction

Content, Conversations, and Discoverability - Quality Outreach and the Internet for Natural Resource Professionals

Houston-Galveston Area Council

The Web is now 25 years old from the first design by Tim Berners-Lee to what we know today in 2014. Things have changed dramatically in design, writing standards, and search ability. In addition, smart devices have outsold desktops significantly in the last 5 years. What does that mean to those in outreach and education? It means we have to continue to grow our expertise in learning how to connect the consumer to the important information we provide. We need to understand how content is found, how conversations and learning networks start, how to be discovered, and what constitutes quality outreach. We have to know where to post, when to post, and what to build on our websites. We have to learn how to reach our traditional clients as well as new clients. There are many successful models that can be used and applied in natural resource outreach and education that can help us down the road of discoverability.

Location:
Houston-Galveston Area Council
Conference Room A, Second Floor
3555 Timmons Lane, Suite 120
Houston, TX 77027

OCTOBER 28 - DAY 1 - 1 PM-4 PM

Oct. 28 (1/2 day) - **Facebook and Twitter**

This half-day is designed to help you get onboard with these two popular social networks. Designed to help beginners who need help learning best practices, and for those who use these tools but would like to get more out of them. We will cover getting accounts, designing strategies, learning best practices, analyzing outreach, and planning schedules.

NO LUNCH

OCTOBER 29 - DAY 2 - 8:30AM-3:30PM

Oct. 29 (Full Day) - **Writing Discoverable Content, Twitter PLUS, Instagram**

Learn how to make the most of what you do on the web more discoverable. This day will go over tips and tricks for your websites, your blogs, Facebook , Twitter, and about anywhere you post. Learn what make content more searchable, sharable, and liked.

Twitter PLUS - Thought you knew everything about Twitter? There's more. Learn how to use Twitter to listen better, to find and discover more information, and how to curate Twitter to create better program outreach

Instagram - Learn how this popular tool can be used for outreach

LUNCH PROVIDED

Register for Any One Day, or Both Days!

$40 registration fee— Tuesday only $50 registration fee - Wednesday only (lunch provided)

$80 registration fee for Tues-Wed. Combo

Trainer:
Amy E. Hays

Texas A&M AgriLife

Social Marketing: Quality Outreach and the Internet for Natural Resource Professionals

Houston-Galveston Area Council Conference Room A, Second Floor
3555 Timmons Lane Suite 120, Houston, TX

Registration Form

(Please type or print) – Complete for Participant List

First Name: ________________________________ Last Name: ______________________________________

Title: _____________________________________ Agency/Organization: ______________________________

Address: ____

City: ____________________________ State: ________ Zip: ____

Phone: __________________ Fax: _________________ Email: _____________________________________

Any special needs (dietary or other): ____

* *

Registration fee includes: course materials and a certificate of completion.
*Please note: to be eligible for this discounted rate, please use **non-federal** funds for course registration if available.*

______	**Registration Day 1**	@	**$40.00**	**$**________
______	**Registration Day 2**	@	**$50.00**	**$**________
______	**Registration Both Days**	@	**$80.00**	**$**________
		Total Fees Submitted		**$**________

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College Station, TX 77843-2118

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Phone: (979) 458-5915
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E-mail: n-dictson@tamu.edu

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Description of Purchase: Registration for Social Marketing Training
Texas A&M University, College Station, Texas

Amount: $_____

_____MasterCard _____Visa _____American Express
(Please check type of credit card above)

Credit Card Number: **3 digit security code from back of card:**

_____ **_____**

Expiration Date: _____

Signature: _____

Telephone Number: _____