

# **Lake Conroe Watershed Protection**

## **Stake Holder Meeting Handouts**

**March 28, 2014**

- Agenda
- Contact List
- PowerPoint Presentation
- Acronyms and Abbreviations
- Lake Conroe Watershed
- Tentative Schedule of Meetings





San Jacinto River Authority  
General Administrative Building  
3:00 P.M.  
1577 Dam Site Road  
Conroe, Texas 77304

## Agenda

### Watershed Protection Plan Stakeholder Meeting

3/28/2014

3:00pm-5:00pm

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3:00pm-3:30pm

Introduction

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3:30pm-3:50pm

Watershed Protection 101

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3:50pm-4:10pm

Example Program Elements

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4:10pm-4:40pm

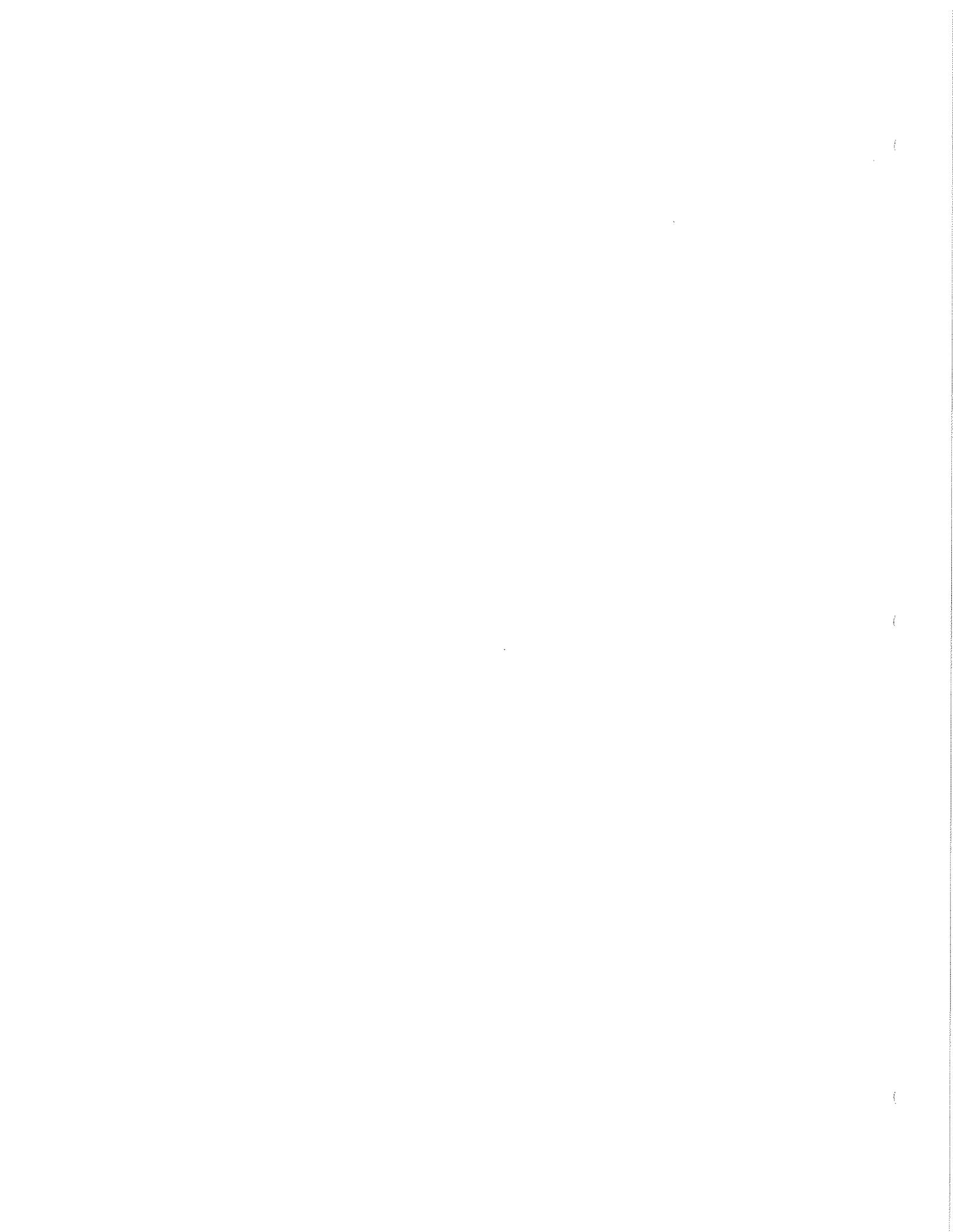
Stakeholder Involvement

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4:40pm-5:00pm

Discussion

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## WPP Stakeholders Contact Information

Name	Company	Phone Number	E-Mail Address
Jace Houston	SJRA	936-588-3111	<a href="mailto:jhouston@sira.net">jhouston@sira.net</a>
Ron Kelling	SJRA	936-588-3111	<a href="mailto:rkelling@sira.net">rkelling@sira.net</a>
David Parkhill	SJRA	936-588-3111	<a href="mailto:dparkhill@sira.net">dparkhill@sira.net</a>
Bret Raley	SJRA	936-588-1111	<a href="mailto:braley@sira.net">braley@sira.net</a>
Randy Acreman	SJRA	936-588-1111	<a href="mailto:racreman@sira.net">racreman@sira.net</a>
Shane Simpson	SJRA	936-588-1111	<a href="mailto:ssimpson@sira.net">ssimpson@sira.net</a>
Ronda Trow	SJRA	936-588-3111	<a href="mailto:rtrow@sira.net">rtrow@sira.net</a>
Michelle Simpson	SJRA	936-588-3111	<a href="mailto:msimpson@sira.net">msimpson@sira.net</a>
Mark Smith	SJRA	936-588-1662	<a href="mailto:msmith@sira.net">msmith@sira.net</a>
Jim Haymon	Far Hills MUD	713-703-2588	<a href="mailto:jhaymon@suddenlink.net">jhaymon@suddenlink.net</a>
Peter Czerwinski		713-825-1844	<a href="mailto:peter.czerwinski@ett-inc.com">peter.czerwinski@ett-inc.com</a>
Arthur Faiello	City of Willis	936-856-4611	<a href="mailto:afaiello@ci.willis.tx.us">afaiello@ci.willis.tx.us</a>
Carol Reed	City of Huntsville	936-294-5707	<a href="mailto:creed@huntsville.tx.gov">creed@huntsville.tx.gov</a>
Scott Taylor	City of Conroe	936-522-3890	<a href="mailto:staylor@cityofconroe.org">staylor@cityofconroe.org</a>
Michael Lindsey	Montgomery County	936-539-7839	<a href="mailto:michael.lindsey@mctx.org">michael.lindsey@mctx.org</a>
Andy Isbell	Walker County	936-436-4939	<a href="mailto:aisbell@co.walker.tx.us">aisbell@co.walker.tx.us</a>
Tim Cade	Montgomery County/Pct. 1	936-522-8796	<a href="mailto:timothy.cade@mctx.org">timothy.cade@mctx.org</a>
Scott Harper	Lake Conroe Area Chamber	936-494-5107	<a href="mailto:harper@conroe.org">harper@conroe.org</a>
Vernon Miller	Shoreline Services	936-672-4880	<a href="mailto:vernon@shorelinecompanies.com">vernon@shorelinecompanies.com</a>
Ruth Stultz	Ruth Stultz Realty	713-962-2777	<a href="mailto:ruth@ruth-stultz.com">ruth@ruth-stultz.com</a>
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Ben Richardson	Palms Marina	936-537-0766	<a href="mailto:ben31@lakeconroe.com">ben31@lakeconroe.com</a>
Mark Webb	TPWD	979-224-0232	<a href="mailto:mark.webb@tpwd.texas.gov">mark.webb@tpwd.texas.gov</a>
Warren Oja	USFS	936-344-6205	<a href="mailto:woja@fs.fed.us">woja@fs.fed.us</a>
Ron Gunter	Seven Coves Bass Club	936-524-4413	<a href="mailto:regunter@consolidated.net">regunter@consolidated.net</a>
Terry Bowie		936-203-5101	<a href="mailto:tfbowie@consolidated.net">tfbowie@consolidated.net</a>



# Lake Conroe Watershed Protection Plan Stakeholder Group Meeting



March 28, 2014

San Jacinto River  
Authority

## AGENDA for Today's Meeting

- Introduction
- Watershed Protection 101
- Example Program Elements
- Stakeholder Involvement
- Discussions

## The Big Picture

- Lake Conroe's Use is Expanding...
- Area growth has more people using Lake Conroe for recreational purposes than ever before
- Beginning in 2015 the use of Lake Conroe will include its original purpose of a water supply
- **BIG PICTURE** - Our Water Quality is Good – Let's Keep it that way!



## Overall Objectives

- To maintain or improve the quality of Lake Conroe's water
  - i.e. remain unimpaired
- To provide source-water protection for the GRP
- To provide area stakeholders an opportunity for input into what is ultimately accomplished

## **SJRA Team**

- \* Randy Acreman, Lake Conroe Water Quality Manager
- \* Jace Houston, General Manager
- \* Ron Kelling, Deputy General Manager
- \* Davies Mtundu, Technical Services Support
- \* David Parkhill, Director Raw Water Enterprise
- \* Bret Raley, Lake Conroe Division Manager
- \* Michelle Simpson, Public Relations Specialist
- \* Shane Simpson, Lake Conroe Water Quality Specialist
- \* Mark Smith, GRP Division Manager
- \* Ronda Trow, Public Relations Manager

## **Identified Stakeholder Categories**

- **Recreational:** angling, boating, swimming, skiing
- **Environmental:** TPWD, USFS
- **Residential:** property owners, real estate interests
- **MUDS/WWTP's:** utility districts and wastewater treatment plants
- **Civic/Governmental:** City of Conroe, City of Huntsville, Montgomery County, Walker County
- **Law Enforcement:** Montgomery County Constables
- **Commercial/Business:** marinas, real estate companies, chamber of commerce

## Stakeholder Volunteers

<u>Name</u>	<u>Affiliation</u>
Terry Bowie	President, Lake Conroe Communities Network
Timothy Cade	Lieutenant, Montgomery County Precinct-1 Constables
Peter Czerwinski	Resident, Walden on Lake Conroe
Arthur Faiello	Public Works Director, City of Willis
Ron Gunter	President, Seven Coves Bass Club President, Greater Conroe/Lake Conroe Area Chamber of Commerce
Scott Harper	
Jim Haymon	President, Far Hills Utility District
Andy Isbell	Director of Planning and Development, Walker County

## Stakeholder Volunteers Cont.

<u>Name</u>	<u>Affiliation</u>
Tyler Jacobs	Land Broker/Ranch Owner, Jacobs Properties
Michael Lindsey	Director of Community Health Services, Montgomery County
Vernon Miller	Owner, Shoreline Services
Warren Oja	District Ranger, Sam Houston National Forest
Carol Reed	Director of Public Works, City of Huntsville
Ben Richardson	Owner, The Palms Marina
Ruth Stultz	Owner/Broker, Ruth Stultz & Co. Realty
Scott Taylor	Director of Public Works, City of Conroe
Mark Webb	District Supervisor, Inland Fisheries, TX Parks and Wildlife Dept.

## **Role of Stakeholder Group**

- Provide guidance and input to SJRA
- Act as a sounding board
- Bring a unique perspective

## **AGENDA for Today's Meeting**

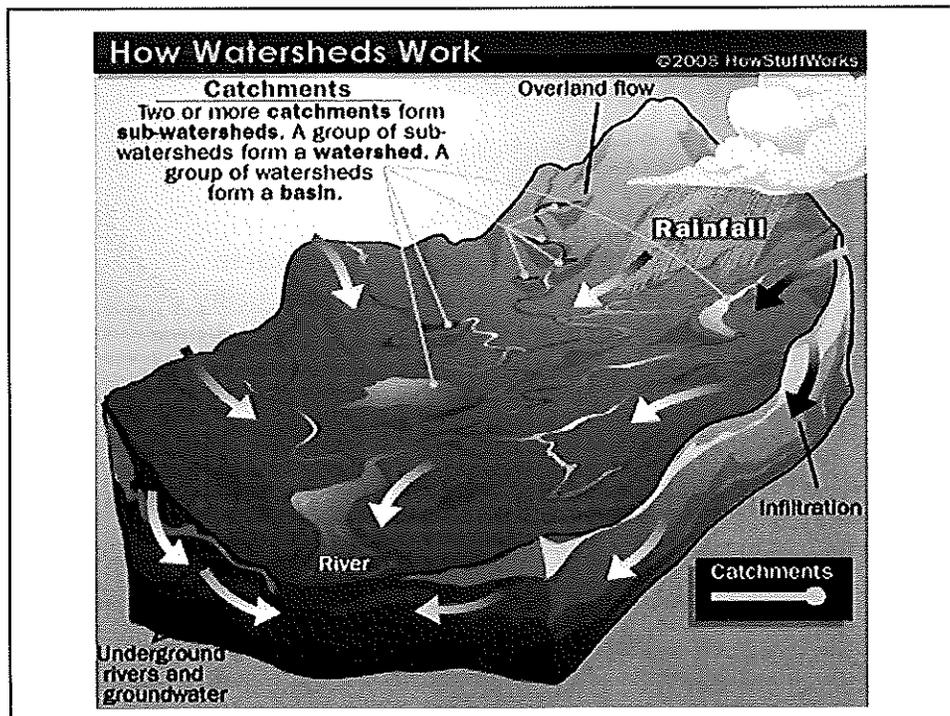
- ✓ Introduction
- **Watershed Protection 101**
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# **Watershed Protection 101**

## **Shane Simpson**

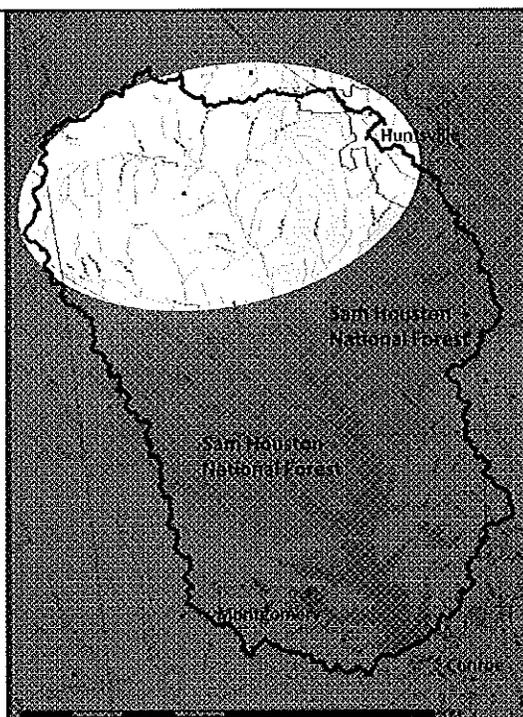
### **What is a Watershed?**

- The land that water flows across or through on its way to a common stream, river, or lake.
  - A watershed can be very large (e.g. draining thousands of square miles to a major river or lake or the ocean), or very small, such as a 20-acre watershed that drains to a pond.
  - A small watershed that nests inside of a larger watershed is sometimes referred to as a sub-watershed.



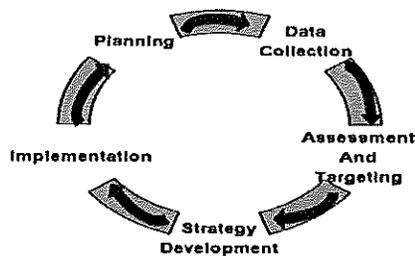
# Lake Conroe Watershed

- Covers over 440 square miles
- Within Grimes, Montgomery, and Walker Counties
- Nine main tributaries
- Multiple land uses
  - Agriculture
  - National Forest
  - Residential/Urban
  - Commercial



## What is Watershed Management?

- Watershed Management is a holistic approach to managing water resources for quantity and quality within a watershed. Watershed management is also a useful, proactive approach in areas without immediate problems.

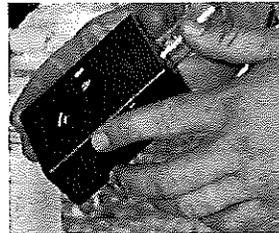


## WPP Development Strategy

- Characterize the watershed
- Public outreach & education
- Build partnerships
  - Stakeholder Committee
- Set goals and identify solutions
- Select program elements
- Finalize and publish Watershed Protection Plan
- Implement the Watershed Protection Plan
- Measure progress and make adjustments

## Watershed Protection Plan Ongoing Activities

- Further characterize the watershed
- Continue water quality monitoring
- Respond to and report possible violations
- Build partnerships by increasing public outreach
- Work with stakeholder group



## Water Quality Monitoring

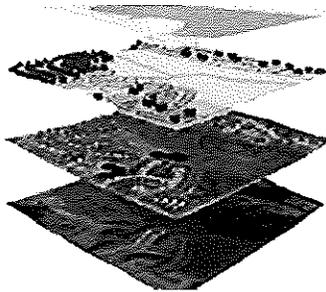
Lake Conroe's water quality is monitored through:

- Clean Rivers Program
- SJRA intake structure water sampling
- WPP sampling
- Storm Sampling
- SJRA in house data analysis of some samples collected daily/monthly/annually

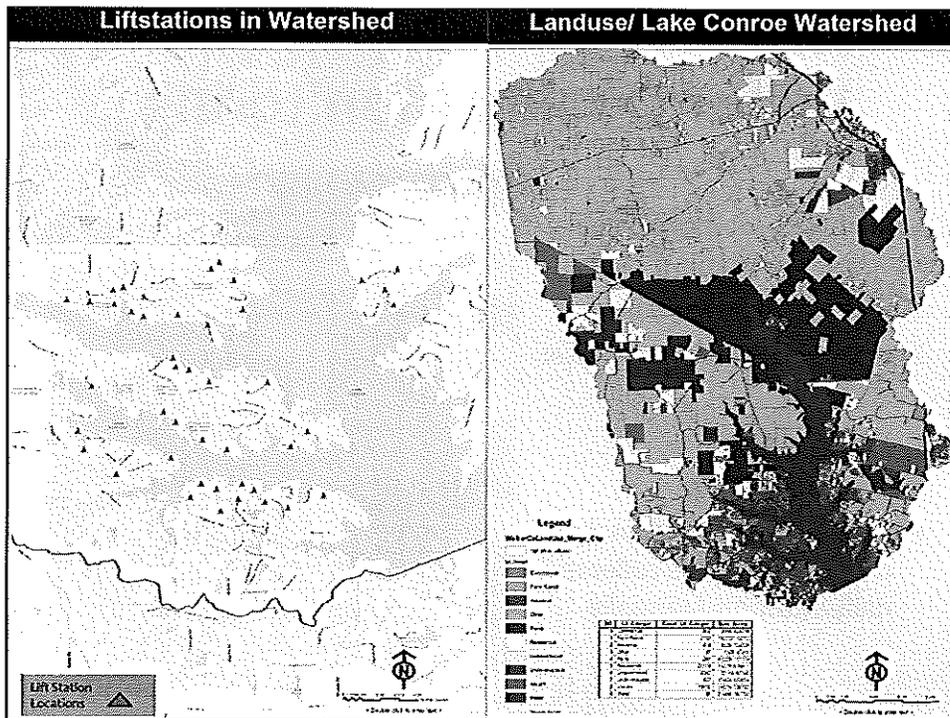


# Characterization Mapping

- Mapping is a great way to display all kinds of data in an easy to understand format.



- Some of the data that we are collecting for the Lake Conroe Watershed Protection Plan are:
  - Storm drains
  - Sewage Lift stations
  - On-Site Sewage Facilities (OSSF's)
  - Waste Water Treatment Plants
  - Demographics
  - Land-use
  - Businesses with toxic waste



## Increasing Public Outreach

- Informative Tours: Dam and Water Quality Lab
  - Local Schools, Non-Profit Organizations, Community Leaders, Utilities, MUDs, Cities, etc.
- Environmental Expos
- Press Releases, Articles, and Representation on Social Media
- Handouts and pamphlets

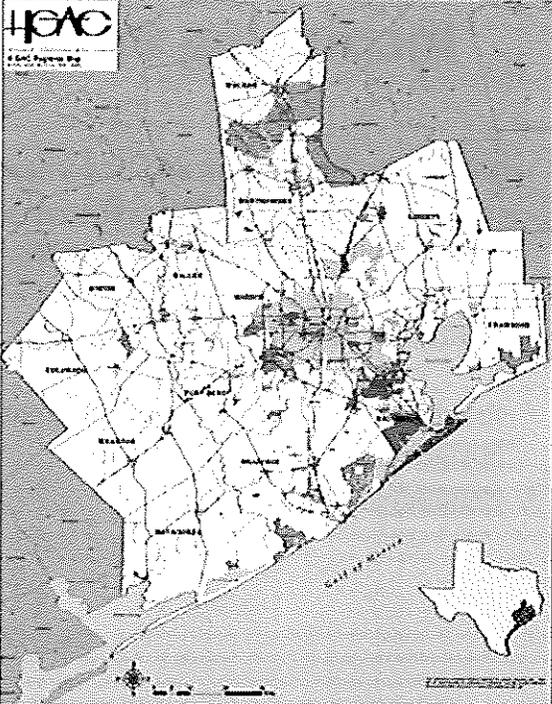


## Building Partnerships

- Stakeholder Group
- Clean Rivers program
- BIG workgroup
- Texas Stream Team

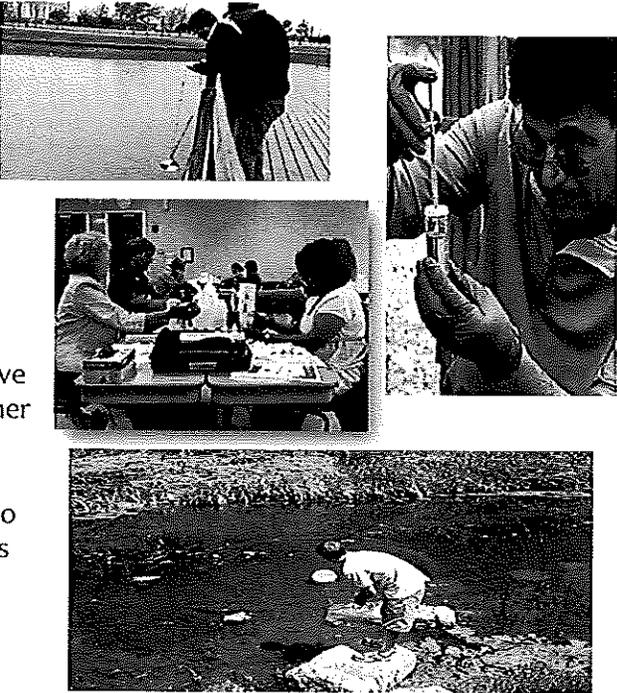


• “Texas Clean Rivers Program (CRP) is a state fee-funded, non-regulatory program that was created to provide a framework and forum for managing water quality issues in a more holistic manner. The focus of the program is to work at the watershed level, within each river basin, by coordinating the efforts of diverse organizations.”





“Texas Stream Team is a network of trained volunteers and supportive partners working together to gather information about the natural resources of Texas and to ensure the information is available to all Texans.”



## **AGENDA for Today's Meeting**

- ✓ Introduction
- ✓ Watershed Protection 101
- **Example Program Elements**
- Stakeholder Involvement
- Discussions

## **Example Program Elements**

- On Site Sewage Facility (OSSF) program
- Storm water discharge requirements for new development and redevelopment
- Sewage lift station improvements
- Wastewater plant effluent regulations
- Shoreline management

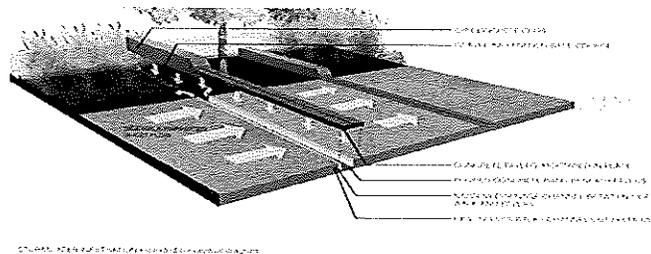
## Changes to the On Site Sewage Facility (OSSF) Program

- TCEQ rules on aerobic treatment units changed in 2007
- Amend OSSF order to require a trained and licensed maintenance provider on aerobic treatment units (ATU's)



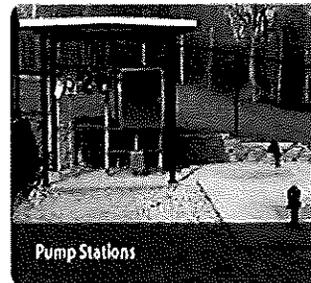
## Storm Water Quality Requirements for New Development

- SJRA has no formal standards for storm water discharge from new developments.
- There are opportunities for best management practices (BMPs) to be implemented.



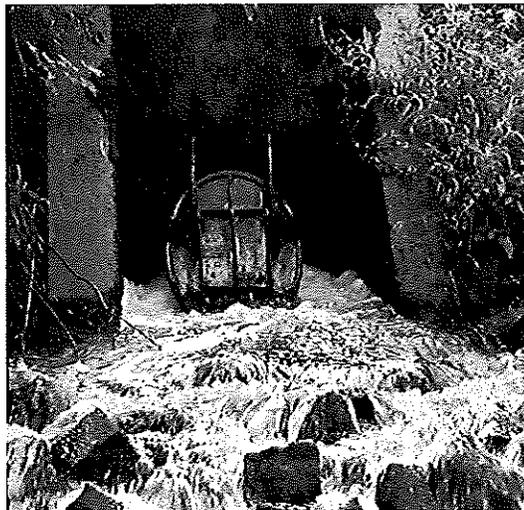
## Sewage Lift Station Auto Dialer Program

- Failure of lift station operations can cause overflows of raw sewage into our waterways



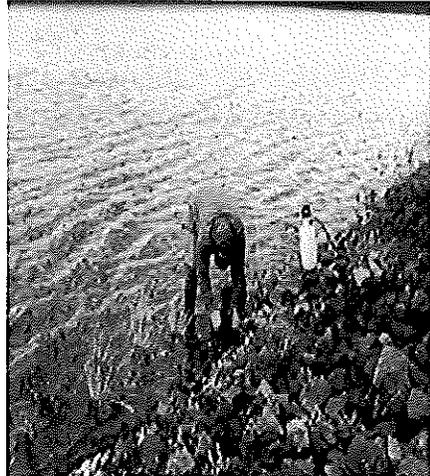
## More Stringent Wastewater Plant effluent regulations

- Lobby TCEQ to require more strict regulations on wastewater treatment plant effluent.



## Shoreline Management

- Vegetation shoreline planting with native species
- Managing invasive plants
- Construction erosion control
- Education and regulation within water quality zone



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- **Stakeholder Involvement**
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## Stakeholder Involvement

- Schedule of Activities
- Meeting Logistics
- Meeting Ground Rules
- Group Organization

## Meeting Logistics

	<u>Recommendations</u>
Time of day	Lunch
Day of the week	Discussion
Length of meeting	1.5 hrs.
Location	SJRA
Meeting correspondence	E-mail

## Meeting Ground Rules

- Be mindful of the schedule
- Keep an open mind
- Silence cell phones
- Respect all opinions
- No question is a bad question

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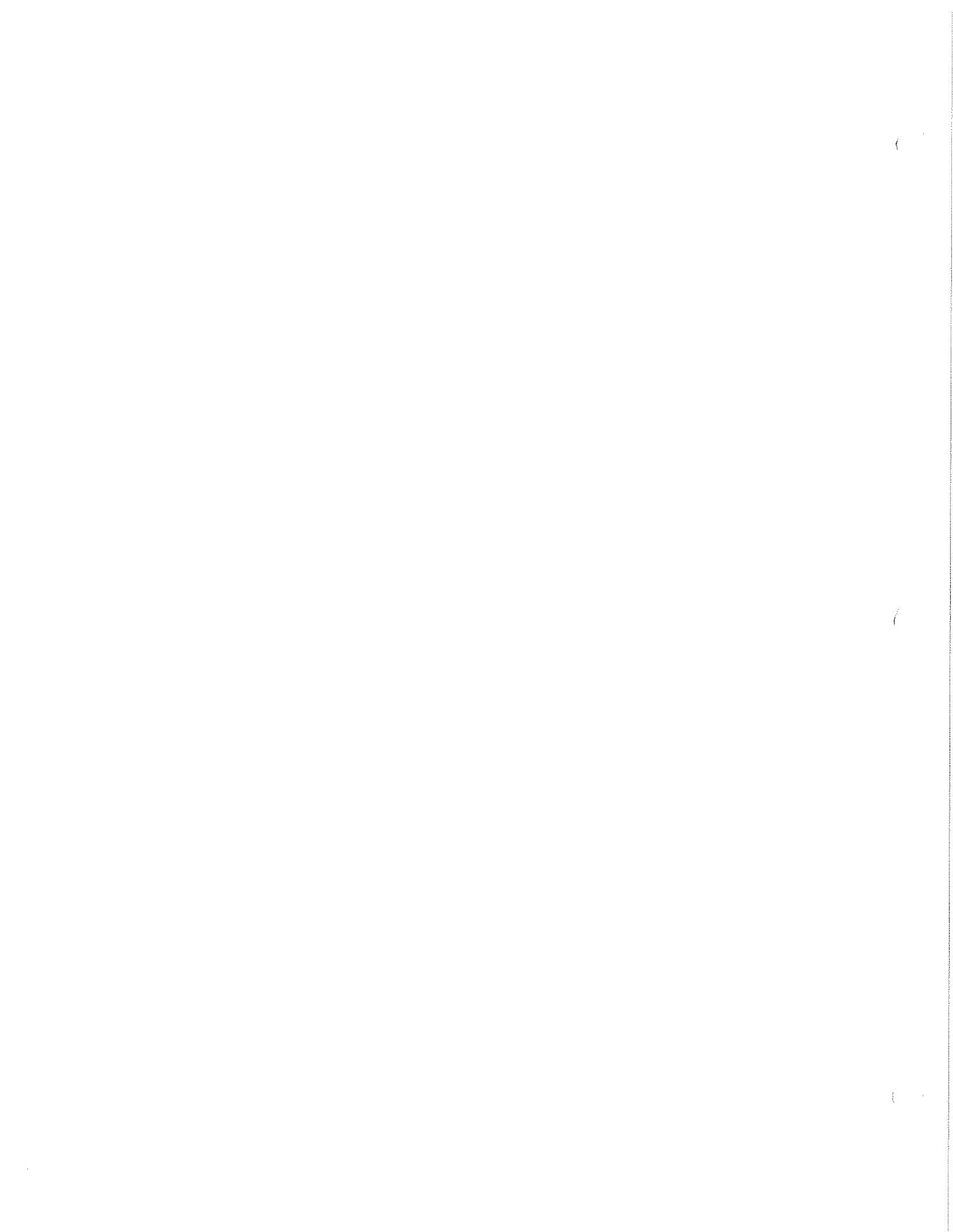
## **Group Discussion**

- Formality
- Structure
- Decisions (majority, consensus?)
- Mechanism for feedback to SJRA



# Acronyms and Abbreviations

<b>BMP</b> .....	<b>Best Management Practices</b>
<b>CAFO</b> .....	<b>Concentrated Animal Feeding Operation</b>
<b>COD</b> .....	<b>Chemical Oxygen Demand</b>
<b>DO</b> .....	<b>Dissolved Oxygen</b>
<b>DOT</b> .....	<b>Department of Transportation</b>
<b>EPA</b> .....	<b>Environmental Protection Agency</b>
<b>GIS</b> .....	<b>Geographic Information System</b>
<b>GPS</b> .....	<b>Global Positioning System</b>
<b>GRP</b> .....	<b>Groundwater Protection Plan</b>
<b>LID</b> .....	<b>Low Impact Development</b>
<b>Mg/l</b> .....	<b>Milligrams Per Liter</b>
<b>NPS</b> .....	<b>Non-Point Source</b>
<b>PS</b> .....	<b>Point Source</b>
<b>NTU</b> .....	<b>Nephelometric Turbidity Units</b>
<b>POTW</b> .....	<b>Publicly Owned Treatment Works</b>
<b>SWP</b> .....	<b>Source Water Protection</b>
<b>SWPP</b> .....	<b>Source Water Protection Plan</b>
<b>TDS</b> .....	<b>Total Dissolved Solids</b>



**TKN.....Total Kjeldahl nitrogen**

**TMDL.....Total Maximum Daily Load**

**TOC.....Total Organic Carbon**

**TP.....Total Phosphorus**

**TSS.....Total Suspended Solids**

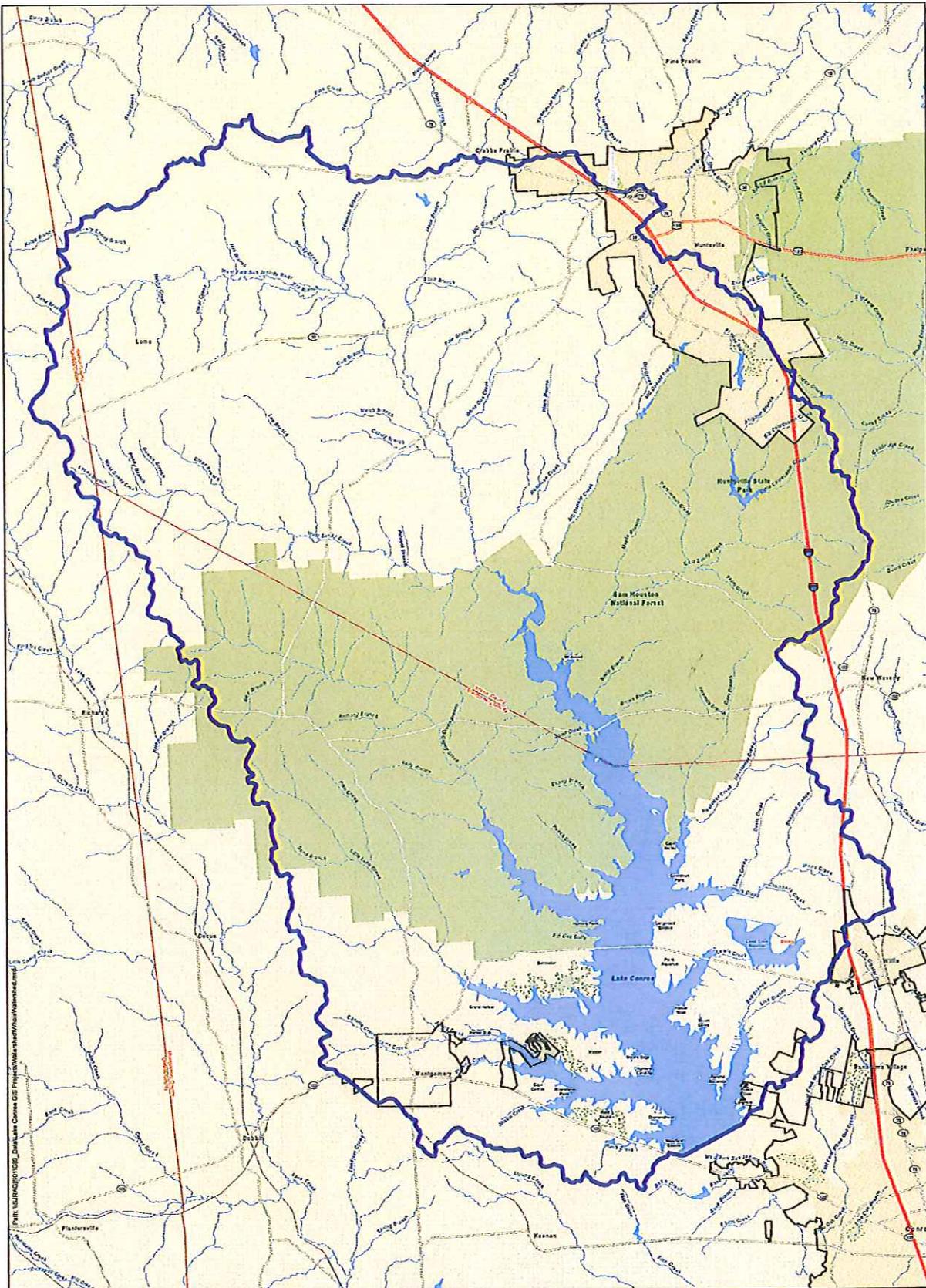
**USDA.....United States Department of Agriculture**

**USGS.....United States Geological Survey**

**WWTP.....Waste Water Treatment Plant**



# Lake Conroe Watershed



 Lake Conroe Watershed Boundary  City  Counties

Watershed Area = 450 sq mi



Miles  
20



Date 3/27/04





**San Jacinto River Authority  
Lake Conroe Watershed Protection Plan**

**Tentative Schedule of Meetings**

**Introduction**

**March 2014**

**Risk Identification and Analysis**

- Define sources and sampling program
- Analyze risks
- Refine probability

**May 2014**

**June 2014**

**July 2014**

**Program Elements**

- Discussion of BMP
- Finalize BMPs

**August 2014**

**September 2014**

**Education and Outreach**

**October 2014**

**Plan Development**

- BMP definition
- BMP implementation

**December 2014**

**January 2015**

**Documentation**

- Draft plan
- Final plan

**February 2015**

**March 2015**

