

# La Nana Bayou WPP Development

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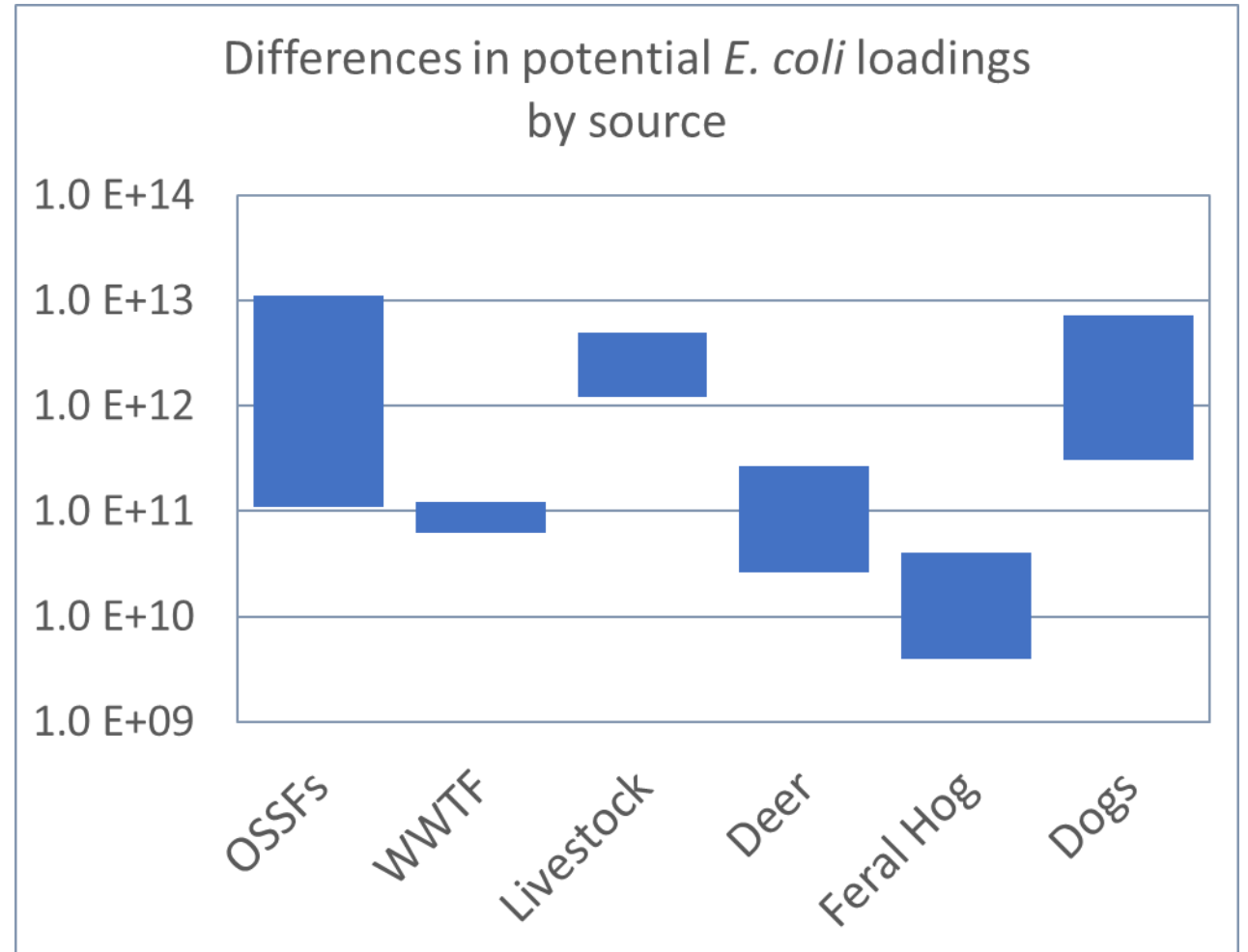
- I. Welcome & Meeting Overview
- II. Brief review of Meeting #3: Priority Areas and Management Measures
- III. Education & Outreach
- IV. Financial and Technical Resources
- V. Measuring Success
- VI. Next Steps

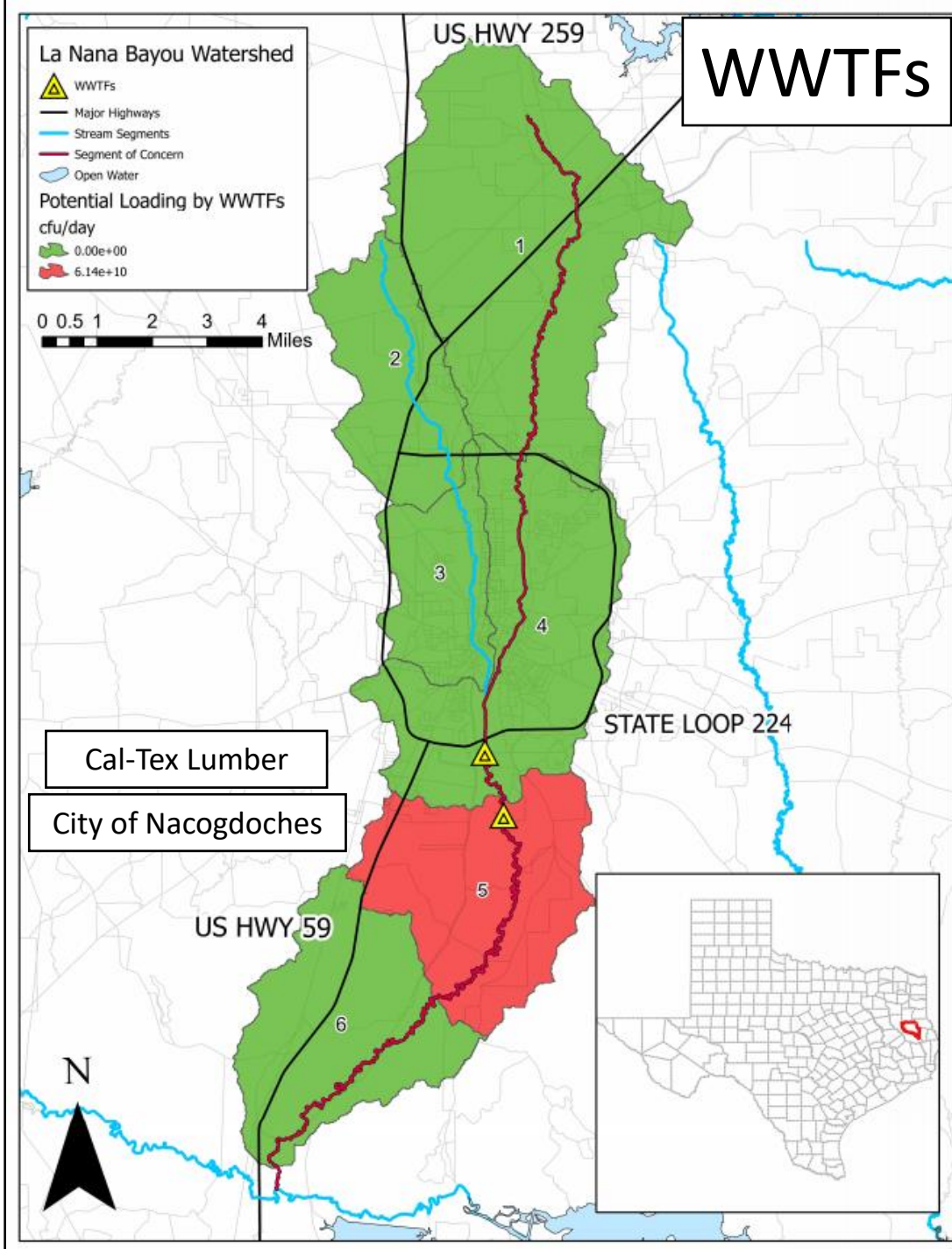
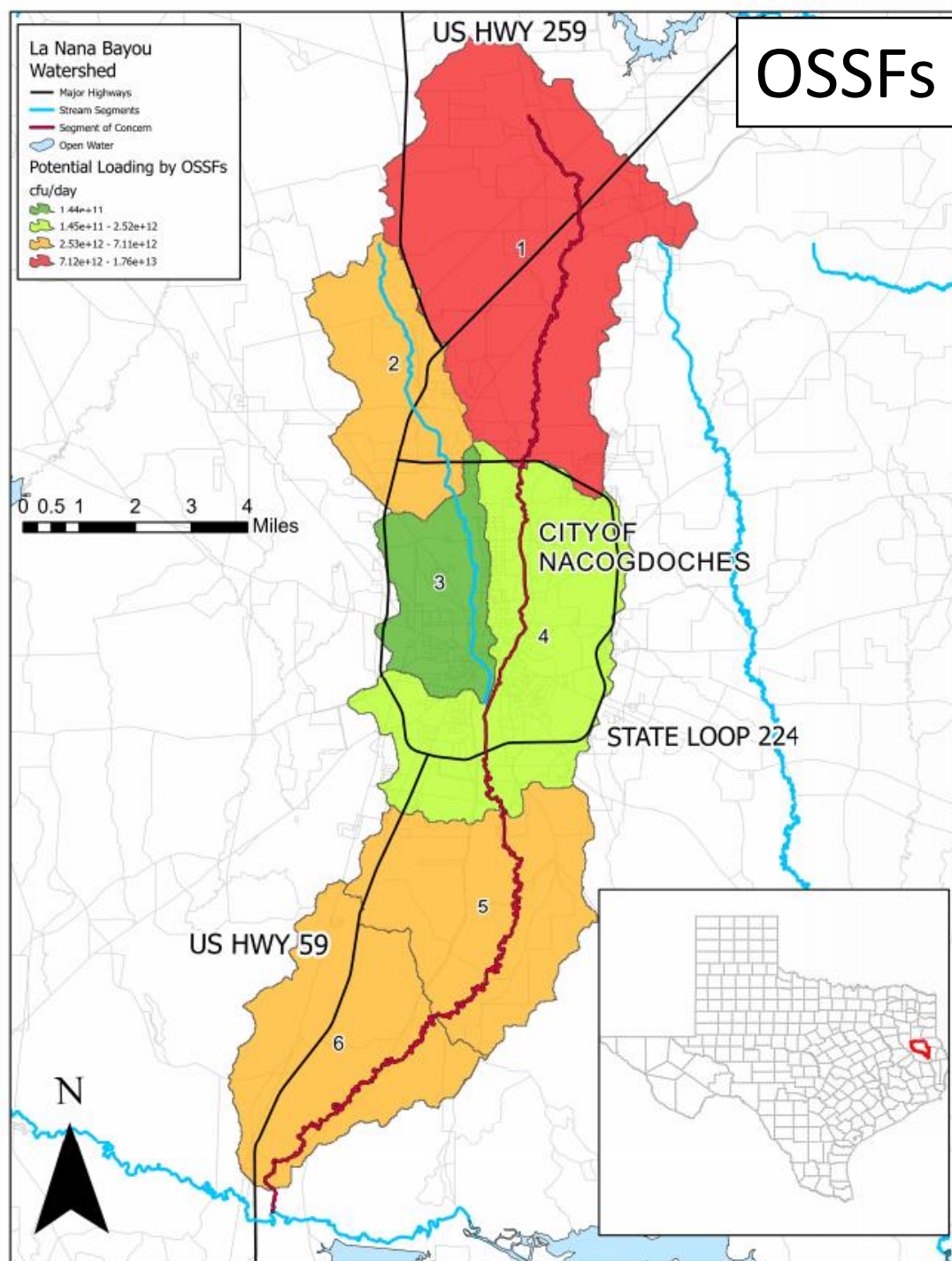




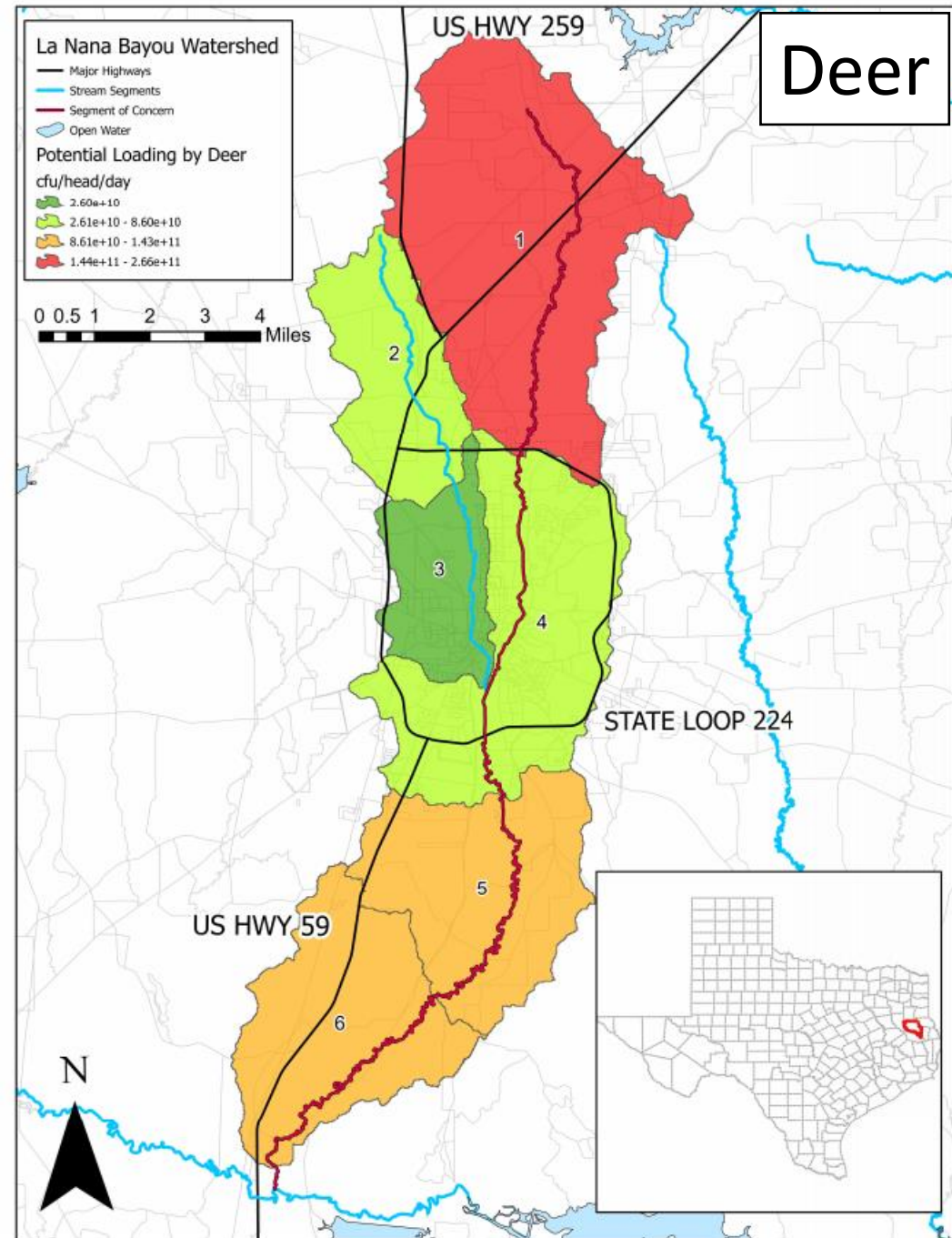
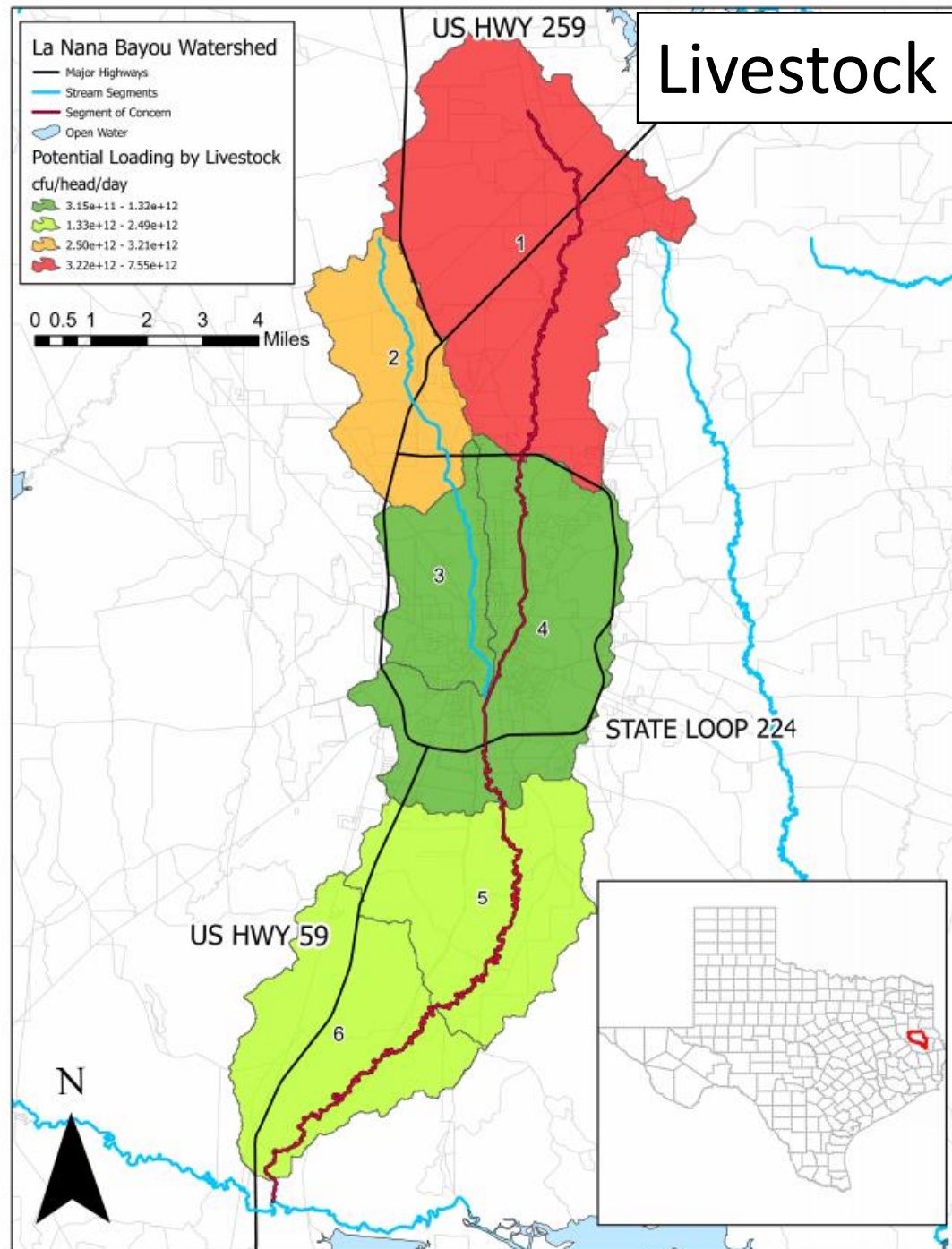
# Meeting #3

- Pollutant Loading Estimates and Priority Areas
- Management Measures

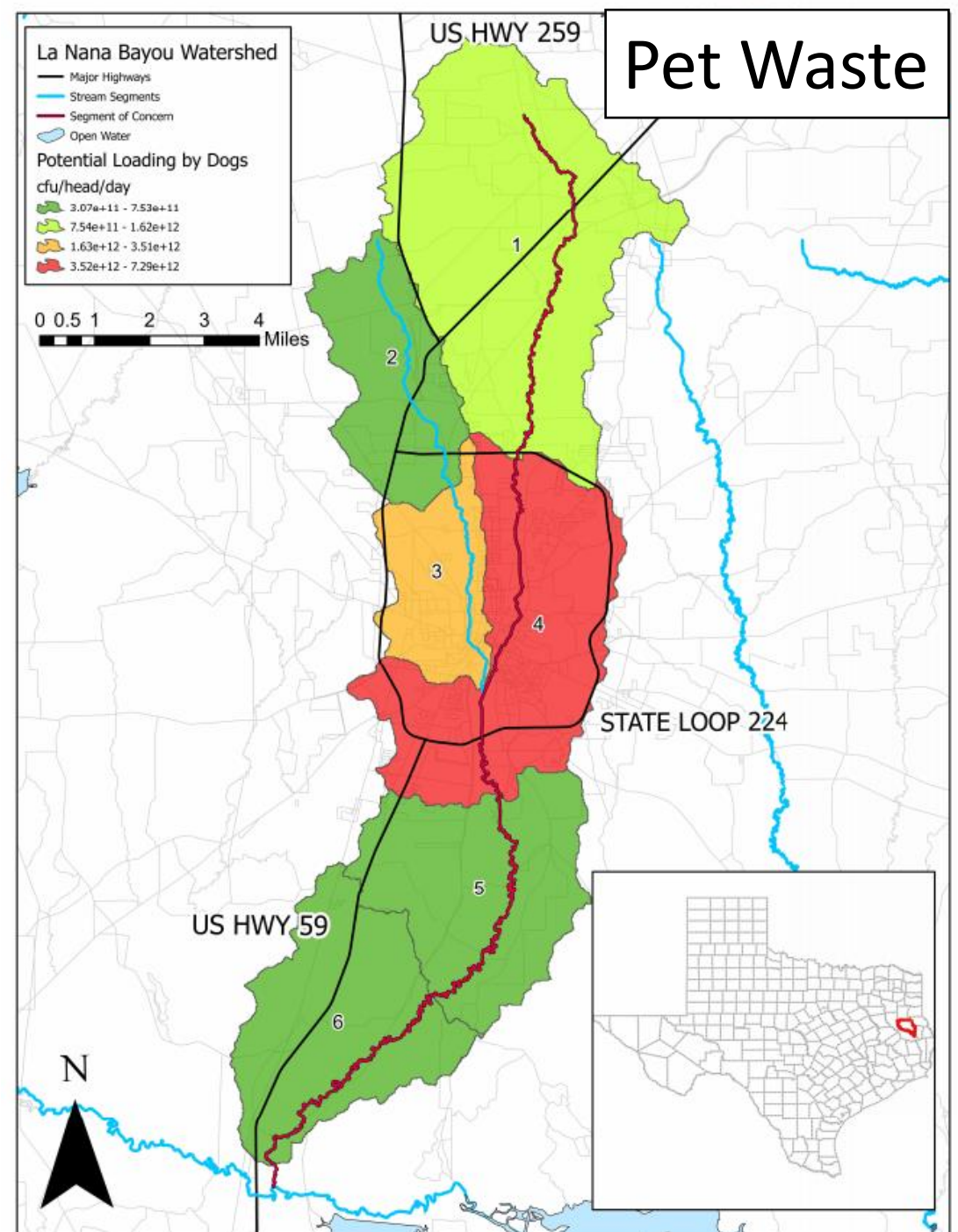
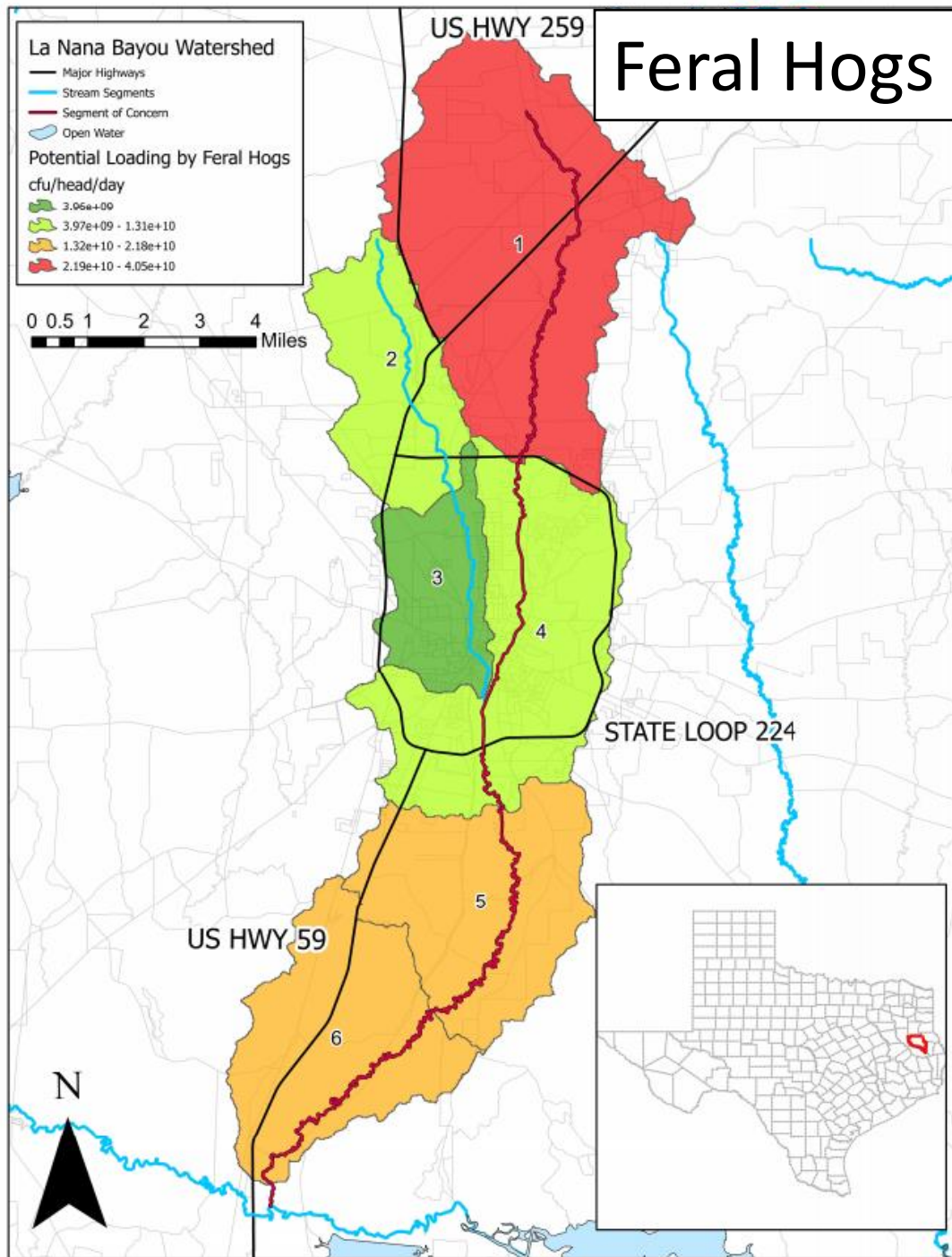












## Implementation Areas

Waste Management (Pet waste & Illegal Dumping)

OSSF Remediation

Stormwater Runoff

Wildlife & Invasive Species

Livestock Management

Lawn and Landscape Maintenance



# Education & Outreach

La Nana Bayou WPP – Chapter 7

Options for educational programs and outreach materials that can be brought to the watershed.





# Existing AgriLife Extension Programs

## **General Watershed and Resource Management**

- Texas Watershed Stewards
- Texas Well Owners Network
- Texas Riparian & Stream Ecosystem Training

## **Cattle, Other Livestock, Feral Hogs**

- Lone Star Healthy Streams Training
- Forage Management Seminars
- Feral Hog Management

## **Urban Stormwater Programming**

- Healthy Lawns, Healthy Waters
- Urban Stream Processes and Restoration

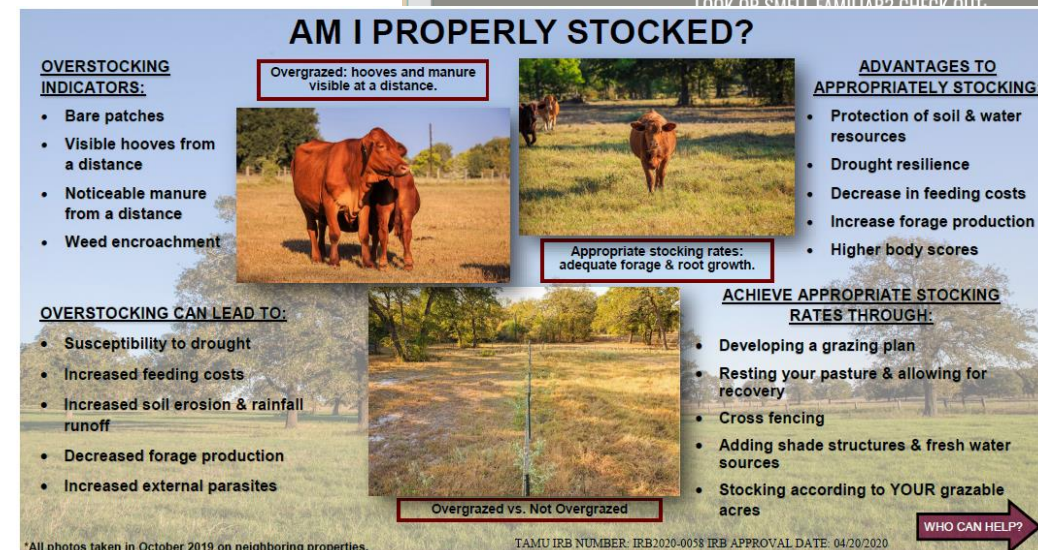
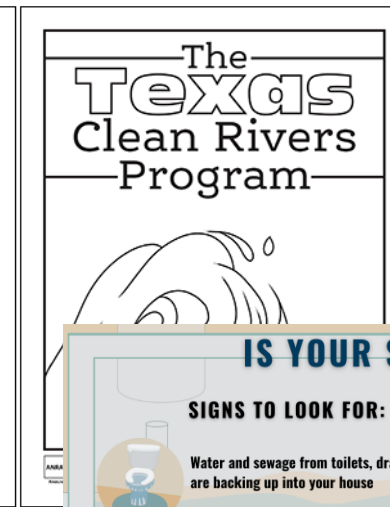
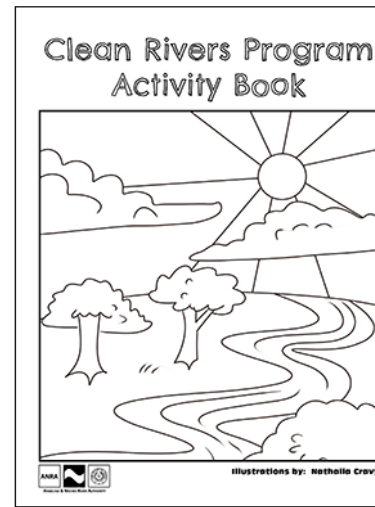
## **Septic Systems**

- Septic System Maintenance for Homeowners



# Existing Outreach Materials

- Fats, Oils and Grease online module and extension materials
- Pocket Guide for Septic System Maintenance
- Extension one-pagers for irrigation and lawn care
- Watershed Newsletter
- Online Education programs
- Direct mailers



# Other Opportunities

- Annual WPP Implementation Public Meetings and newsletters
- Texas Stream Team and other “citizen science” programs
- Wildlife Management workshops
- Texas A&M Forest Service and TPWD programs
- Working with local school districts to develop new programs



# Questions or Suggestions?

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- What programs would benefit this community the most?
- Are there other needs not addressed here?





# Implementation Resources

La Nana Bayou WPP – Chapter 8



# Technical Assistance Resources

Management Measure	Technical Assistance
Waste Management (Pet waste & Illegal Dumping)	City, County, ANRA, AgriLife Extension
OSSF Remediation	County, Designated Reps, AgriLife Extension
Stormwater Runoff	City, AgriLife Extension, TAMFS
Wildlife & Invasive Species	County, AgriLife Extension, ANRA
Livestock Management	SWCD, County, AgriLife Extension
Lawn and Landscape Maintenance	City, AgriLife Extension

# Financial Assistance Resources

Federal Sources	State Sources	Local Sources/Other
CWA §319(h) Nonpoint Source Grant Program	Clean Rivers Program (CRP)	Private Foundations
NRCS Conservation Stewardship Program (CSP)	Clean Water State Revolving Fund (CWSRF)	Non-profit organizations
NRCS Environmental Quality Incentives Program (EQIP)	Landowner Incentive Program (LIP)	Land trusts
NRCS Regional Conservation Partnership Program (RCPP)	Supplemental Environmental Projects (SEP)	General Land Office
Rural Development Water & Environmental Programs	Texas Farm and Ranch Lands Conservation Program	
Urban Water Small Grants	TSSWCB WQMP Program	



# Questions or Suggestions?

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- Are there other resources you know about?





# Measuring WPP Success

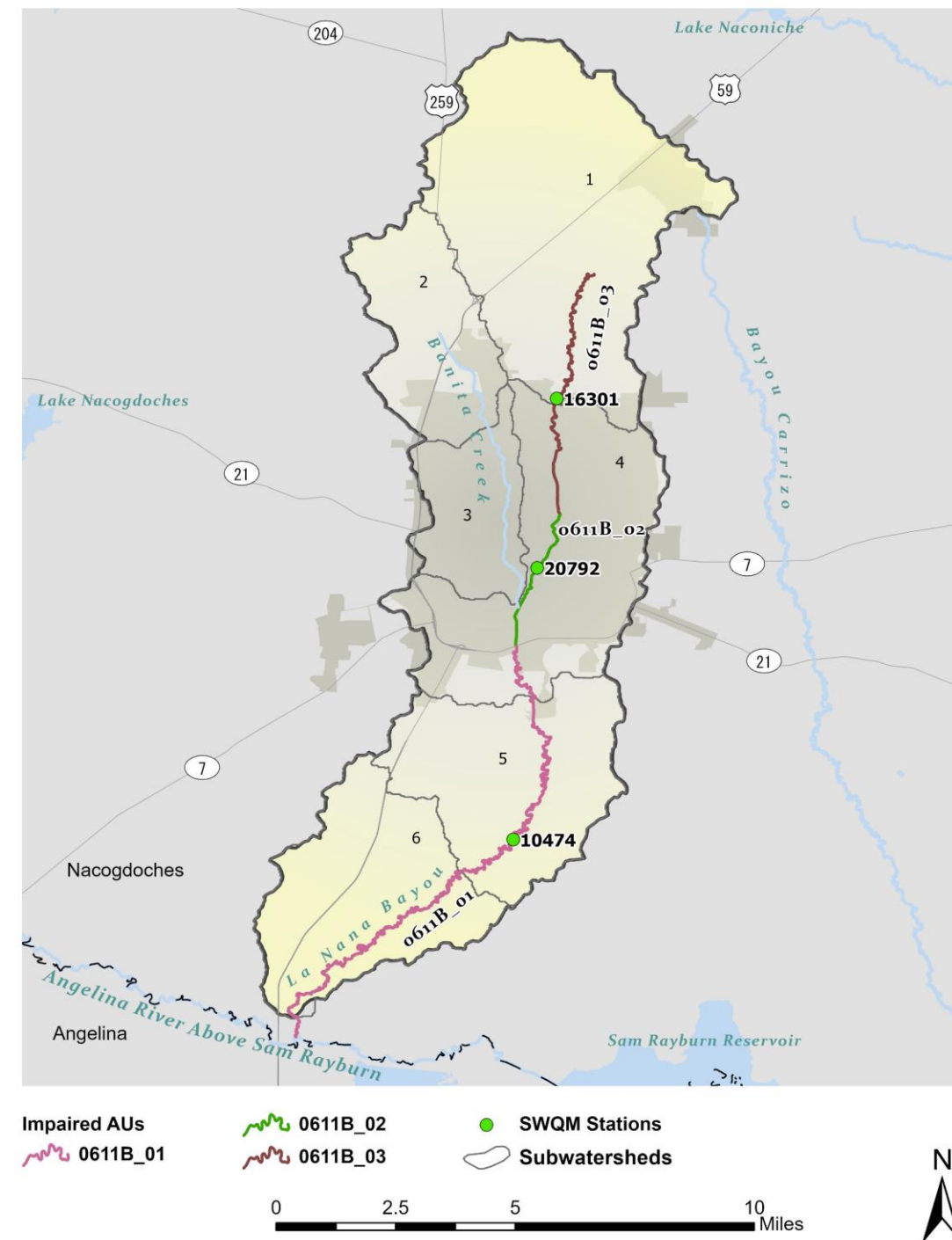
La Nana Bayou WPP - Chapter 9



# Water Quality Monitoring

- Current monitoring through the TCEQ Clean Rivers Program with ANRA
- Quarterly Grab Samples at three stations

Station ID	# Of samples	7-year E. coli geomean (MPN/100mL)
10474	26	279.46
20792	35	576.58
16301	20	443.93



# Parameters Monitored by CRP

## Conventional

- Ammonia-N, Chloride, Chlorophyll-a, TKN, Nitrate-N, Nitrite-N, Pheophytin-a, Sulfate, TP, TSS

## Bacteria

- *Escherichia Coli (E. coli)*

## Flow

- Instantaneous flow and visual flow estimates

## Field

- pH, Dissolved Oxygen, Temperature, Specific Conductivity, Secchi Transparency, Depth, weather, days since last rainfall



# WPP Monitoring Recommendations

1

Continue CRP quarterly monitoring

2

Supplement CRP monitoring with eight additional sampling events per year per station

3

Consider BMP effectiveness monitoring after implementing management measures

# Other Measurements of Success

It takes time to see water quality improvement, so including additional markers of success independent of monitoring data is important:

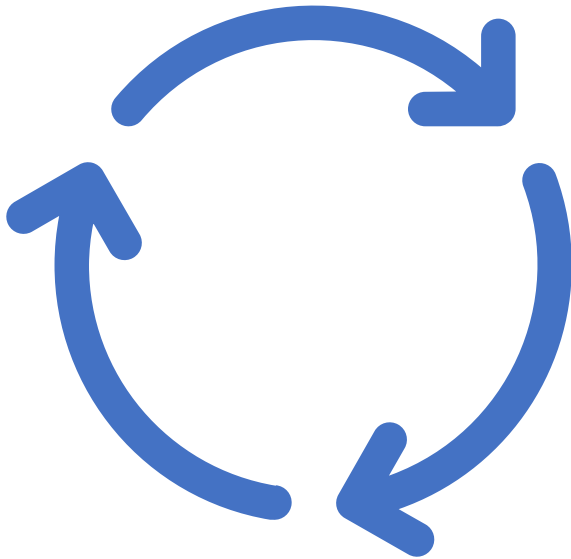
Number of practices implemented

Number of stakeholders engaged

Funding secured for implementation

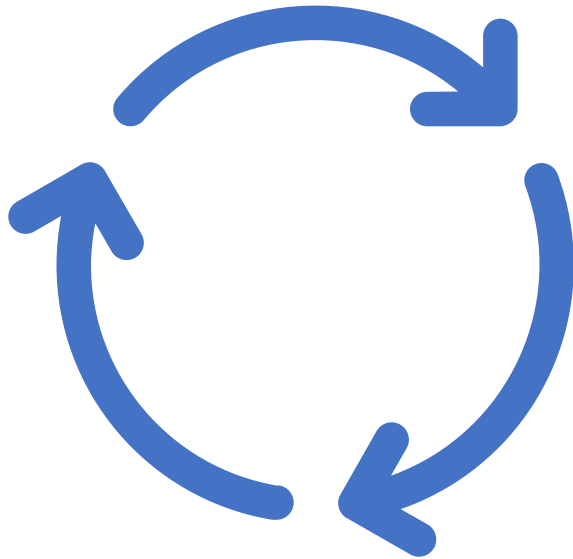


# Adaptive Project Management



- Structured, iterative process of decision-making
- Provides guidance for when to revise what we are doing if sufficient progress is not made, or when external factors change
- Adjustments to implementation can help meet established goals (or goals can be revisited)

# Adaptive Project Management



Recommend a formal review every 5 years of:

- **Water Quality:** Review water quality assessment
- **Implementation Progress:** Review progress toward interim milestones
- **Additional Considerations:** Review recent population, land use, permits, and other data



# Questions or Suggestions?

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- How would you measure success?





# Next Steps

- Stakeholders provide comments on Chapters 3, 4, and 5
  - Available on website by 4/29: [tx.ag/LaNana](https://tx.ag/LaNana)
  - E-mail Emily by May 13 with comments
- Schedule final meeting (with an education program?)
- Stakeholders provide comments on Chapter 6, 7, 8, and 9
  - Available mid-May
- Submit final draft to TCEQ/EPA, wait for comments

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