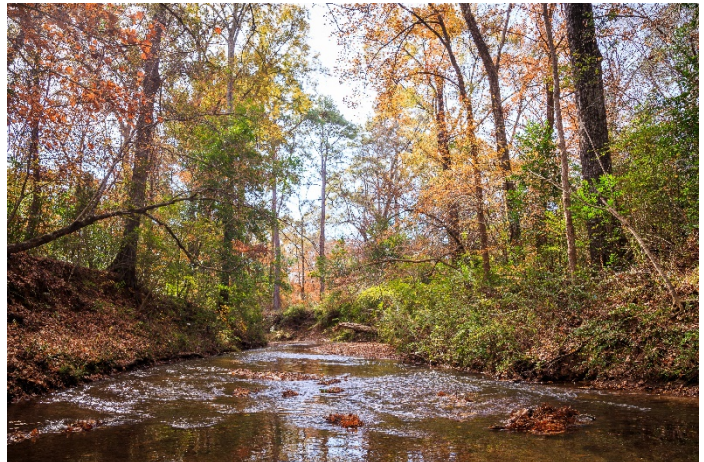




# Hillebrandt Bayou and Neches River Tidal Coordination Committee Meeting

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Texas Water Resources Institute

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## Before we start:

- 1) Please mute your microphones.
- 2) If you have questions, please use the chat box and our moderator will chime in to make sure your question is addressed.
- 3) The slides and meeting notes will be posted online after the meeting at:  
<https://twri.tamu.edu/neches/lower-neches>  
<https://www.tceq.texas.gov/waterquality/tmdl/nav/118-hillebrandtbayou-bacteria>  
<https://www.tceq.texas.gov/waterquality/tmdl/nav/118-nechestidal-bacteria>
- 4) Please sign in using our webform, the link will be posted in the chat box.

## Project Team

Michael Schramm – Texas Water Resources Institute, Texas A&M AgriLife Research

Nicole Reed – Texas Commission on Environmental Quality

## Zoom Moderator

Lucas Gregory – Texas Water Resources Institute

TECHNICAL SUPPORT DOCUMENT FOR FOUR TOTAL MAXIMUM DAILY LOADS FOR INDICATOR  
BACTERIA IN NECHES RIVER TIDAL

## Technical Support Document for Four Total Maximum Daily Loads for Indicator Bacteria in Neches River Tidal

Segment: 0601

Assessment Units: 0601\_01, 0601\_02, 0601\_03, 0601\_04



Neches River Tidal at Collier's Ferry Park

## Reminder:

The Technical Support Documents for Hillebrandt Bayou and Neches River Tidal and the draft Hillebrandt Bayou TMDL are available online:

<https://www.tceq.texas.gov/waterquality/tmdl/nav/118-hillebrandtbayou-bacteria>

<https://www.tceq.texas.gov/waterquality/tmdl/nav/118-nechestidal-bacteria>

# Agenda

- Facilitate discussion about management measures identified by work groups.
- Identify missing management measures.

# Implement Conservation Plans and Water Quality Management Plans

## **Overview:**

Provide technical and financial assistance to agricultural producers for planning and implementing conservation practices



- **Measurable Milestones:**
  - Conservation plans and WQMPs developed
- **Indicators of Progress:**
  - Number of EQIP applications
  - Amount of cost share awarded
  - Land area with conservation practices
- **Technical and Financial Needs:**
  - Provided by NRCS and local SWCDs
  - Farm Bill Programs to install practices
- **Responsible Entities:**
  - NRCS, TSSWCB, Lower Sabine-Neches SWCD, Local Stakeholders

Practice	NRCS Code	Focus Area or Benefit
Fencing	382	Livestock, Water Quality
Filter Strips	393	Livestock, Water Quality, Wildlife
Heavy Use Area Protection	562	Livestock, Water Quality, Water Quantity
Pond	378	Livestock, Water Quality, Water Quantity, Wildlife
Prescribed Burning	338	Livestock, Water Quality, Wildlife
Prescribed Grazing	528	Livestock, Water Quality, Wildlife
Range/Pasture Planting	550/512	Livestock, Water Quality, Wildlife
Shade Structure	NA	Livestock, Water Quality, Wildlife
Stream Crossing	578	Livestock, Water Quality
Supplemental	NA	Livestock, Water Quality
Water Well	642	Livestock, Water Quantity, Wildlife
Watering Facility	614	Livestock, Water Quantity

# Agricultural Best Practices

# Promote Participation in Conservation Programs

## **Overview:**

Cooperation amongst agencies to identify agriculture producers, develop and deliver materials that promote participation in conservation programs

- **Measurable Milestones:**
  - Program Funding
  - Number of mailings and potential participants contacted
- **Indicators of Progress:**
  - Number of program participation inquiries
  - Survey response from local landowners that indicated increase knowledge or planned participation in programs
- **Technical and Financial Needs:**
  - TWRI and Texas A&M AgriLife provides resources related to educational and marketing material development
  - TWRI, TSSCB, NRCS, and Lower Sabine-Neches SWCB provide technical assistance
- **Responsible Entities:**
  - NRCS, TSSWCB, Lower-Neches SWCD, TWRI, Local Stakeholders



# Promote Sustainable Forest Practices

## **Overview:**

Technical assistance from the Texas A&M Forest Service to forestry owners and operators for selecting, installing, and operating best management practices

- **Measurable Milestones:**
  - Development and delivery of education and outreach programs in the watershed
- **Indicators of Progress:**
  - Number of BMPs implemented
  - Number of participating landowners/managers
  - Number of workshop attendees
- **Technical and Financial Needs:**
  - Texas A&M Forest Service provides technical assistance as requested
  - NRCS provides cost shares through Farm Bill Programs for implementation of BMPs
- **Responsible Entities:**
  - NRCS, TSSCB, TFS, Lower-Neches SWCD, Local Stakeholders

# Promote Effective Feral Hog Management

## **Overview:**

Providing of education programs, workshops, and resources for landowners to improve feral hog management within the watershed



- **Measurable Milestones:**
  - Number of events held
  - Feral hog program grants secured
- **Indicators of Progress:**
  - Number of attendees at events
  - Attendee evaluation results
  - Feral hogs removed
- **Technical and Financial Needs:**
  - Programs will likely require a mix of local, state, and/or federal funds
  - Workshop costs are typically covered by registration fees and sponsorships
  - Texas A&M AgriLife Extension Service provides technical assistance to the public
- **Responsible Entities:**
  - Texas A&M AgriLife Extension, Jefferson County

# Continue MS4 Phase II Activities

## **Overview:**

Entities with Phase II MS4 Permits will continue required activities to reduce bacterial loadings

- **Measurable Milestones:**
  - Conduct reviews of current and upcoming sanitary sewer capital improvement projects
  - Inspect 20% of the outfalls within the urbanized area annually
  - Develop or post on the stormwater website at least 1 type of media/materials to promote...
    - Reporting of stormwater issues
    - Proper maintenance of on-site sewer systems
    - Proper disposal of pet waste
    - Education for residential bacterial sources
- **Responsible Entities:**
  - City of Vidor, Orange County Drainage District, Orange County, Jefferson County, Jefferson County Drainage District 7, City of Port Neches, City of Bridge City, City of Nederland, City of Groves, City of Port Arthur

# MS4 Phase II Activities

- Sanitary Capital Improvement
- Public Reporting
- Failing OSSFs
- Maintenance of On-Site Sewer System
- Outfall Inspections
- Pet Waste Management
- Residential Education



# Continue MS4 Phase I Activities

## **Overview:**

Entities with Phase I MS4 Permits will continue to implement BMPs outlines within the MS4 permit requirement

- **Measurable Milestones:**
  - Develop a list of potential sources of bacteria focused BMPs for bacteria impaired water bodies
- **Technical Financial Needs:**
  - Programs are ongoing and locally funded
  - Technical resources are provided by City of Beaumont Staff, Jefferson County Drainage District No. 6, and technical consultants as needed
- **Indicator of Progress:**
  - Compilation of potential sources and bacteria focused BMPs
- **Responsible Entities:**
  - Jefferson County Drainage District 6, City of Beaumont

# MS4 Phase I Activities

- BMP Development
- Limit Infiltration of Seepage from Municipal Sanitary Sewers to the MS4
- Control and/or Eliminate Sanitary Sewer Overflows
- Maintain a List of Priority Areas Likely to have Illicit Discharges



# Reduce Sanitary Sewer Overflows and Unauthorized Discharges

## **Overview:**

Eligible entities are encouraged to participate in the TCEQ SSO Initiative Program along with continued contribution from existing partners



## • **Measurable Milestones:**

- Number of entities participating in the TCEQ SSO Initiative
- Length of sanitary sewer pipes inspected, repaired, and replaced
- Number of calls received from the City's 3111 telephone service regarding SSOs

## • **Technical Financial Needs:**

- Participation is ongoing and funded through local dollars, costs vary on system size and performance
- Technical assistance for developing an SSO Plan is available through the TCEQ Small Business and Environmental Assistance Division

## • **Responsible Entities:**

- City of Beaumont, City of Port Neches, any entities eligible for participation in the TCEQ SSO Initiative.

# Assess Contributions from Homeless/Transient Encampments

## **Overview:**

Dumping and fecal wastes associated with homeless encampments are a potential source of fecal indicator bacteria. It is not well documented, and infrastructure is not in place to address this community concern.

- **Measurable Milestones:**
  - Partnerships developed
  - Financial resources developed
  - Determination of feasibility/need for programs to address encampments
- **Technical Financial Needs:**
  - Partnerships with NGOs, faith-based communities, and social service organizations need to be developed.
  - No local funds available, grant programs might be pursued through partnerships with public safety and other programs.
- **Responsible Entities:**
  - City of Beaumont and MS4 easement holders.



# OSSF Maintenance and Repair

## **Overview:**

Homeowners are responsible for OSSF maintenance and repair. Education and outreach will be provided to homeowners.

- **Measurable Milestones:**
  - Programs delivered
- **Indicators of Progress:**
  - Indication of knowledge gained through attendee evaluations
- **Technical and Financial Needs:**
  - Most local and statewide watershed education programs are ongoing and require no or limited technical support
  - Statewide education programs use a combination of federal grants and state-funded match
- **Responsible Entities:**
  - AgriLife Extension, Orange County Health Department, Homeowners

# Adult and Youth Watershed Education

## **Overview:**

Continuation of multi-program cooperation to design and implement local and statewide education programs on watersheds and water qualities



- **Measurable Milestones:**
  - Number of events held
- **Indicators of Progress:**
  - Indication of knowledge gained through attendee evaluations
- **Technical and Financial Needs:**
  - Most local and statewide watershed education programs are ongoing and require no or limited technical support
  - Statewide education programs use a combination of federal grants and state-funded match
- **Responsible Entities:**
  - Jefferson County Extension, Orange County Extension, TWRI, Texas Sea Grant, Big Thicket Association

# Clean Rivers Program

## ***Overview:***

Engagement of local stakeholders through annual meetings to inform and update the public on local water quality issues

- ***Measurable Milestones:***
  - Number of stakeholders engaged
  - Number of steering committee meetings attendees
- ***Technical and Financial Needs:***
  - CRP is an ongoing program, additional technical and financial support is not required
- ***Responsible Entities:***
  - LNVA, TCEQ

# Public Events to Increase Water Quality Awareness

## **Overview:**

Promote watershed awareness with events such as Neches River Rally and community stream cleanups.



- **Measurable Milestones:**
  - Number of events held
- **Indicators of Progress:**
  - Number of attendees at events
  - Number of clean up locations
  - Amount of trash (estimates) collected
- **Technical and Financial Needs:**
  - Neches River Rally is organized and funded through registrations and ongoing sponsorships
  - Community clean up events will require identification of sites, potential sponsors, and organization of volunteers
- **Responsible Entities:**
  - LNVA, Big Thicket Association

# Volunteer Water Quality Monitoring

## **Overview:**

Establishing a local monitoring group, training events, monitoring sites, and schedules through volunteer help by the Texas Stream Team



- **Measurable Milestones:**
  - Establishment of a local monitoring chapter of group volunteers
  - Number of actively monitored sites
- **Technical Financial Needs:**
  - Texas Stream Team provides statewide technical assistance through training programs, database, and QA/QC.
  - Test kits cost approximately \$200 each and funding for test kits and training events
- **Responsible Entities:**
  - LNVA

# Management Measures

Category	Source	Management Measure
Agriculture	Livestock	Implement Conservation Plans and WQMPs
Agriculture	Livestock	Promote Conservation Plan and WQMPs with targeted outreach
Silviculture	Forestry runoff	Promote sustainable forestry practices
Wildlife	Feral hogs	Promote feral hog management
Urban	Urban stormwater	Continue MS4 Phase II Implementation
Urban	Urban Stormwater	Continue MS4 Phase I Implementation
Urban	SSOs	Participation in SSO Initiative Program
Urban	Human	Assess contributions from homeless/transient encampments
OSSFs	Failing OSSFs	Promote OSSF maintenance and repair
Education and Outreach	General	Deliver watershed education programs
Education and Outreach	General	Continue Clean Rivers Program
Education and Outreach	General	Public events to increase water quality awareness
Education and Outreach	General	Volunteer water quality monitoring



# Thank you!

## Contact Info:

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