

Proposed Management Measures for Mill Creek



Galen Roberts

Texas A&M AgriLife Extension Service

Mill Creek
April 27, 2015



Management Measures

Proposed primarily to address bacteria concerns in the watershed.

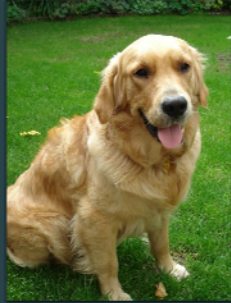
- Measures may be identified to address other types of pollution.
- All measures are voluntary.
- Heavy focus on public outreach and education.

Management Measures

- **Urban Nonpoint Source**
 - Dog Waste
 - Stormwater
- **Wastewater**
 - Septic Systems
 - SSO Initiatives
- **Agricultural Nonpoint Source**
 - Livestock
 - Wildlife & Feral Hogs

Urban Management Measures

- Dog Waste
 - Spay/neuter programs
 - Pet waste stations
 - City pet waste ordinances
 - Public education and outreach.



Urban Management Measures

- Urban Stormwater Runoff
 - Seek funding for engineering analyses and implementation of targeted control measures.
 - Implement non-structural BMPs, where possible.
 - Public education and outreach.



Wastewater Management Measures

- Sanitary Sewer Collection Systems and Overflow Initiatives (SSO)
 - Development of a specialized plan to prevent discharge of wastewater before it reaches a WWTF.
- Household Hazardous Waste Collection (HHW)
 - Seek funding to bolster existing HHW collection programs.

Wastewater Management Measures

- Septic Systems (OSSF)
 - Seek funding to extend sanitary sewer service to marginal areas of cities.
 - Seek funding for repair/replacement of failing OSSFs.
 - Outreach and education.



Agricultural Management Measures

- Water Quality Management Plans (WQMP)
 - Voluntary, site-specific management plans for individual agricultural operations.
 - WQMPs provide landowners access to state funding for implementation of BMPs.
 - Seek funding to employ SWCD technician to assist landowners in developing WQMPs and obtaining financial incentives.

Agricultural Management Measures

- Feral hog control
 - Will seek continued funding for an Extension feral hog position to provide technical assistance to landowners throughout the region.
 - Outreach and education.
- Wildlife
 - Continue to be managed by TPWD.
 - Outreach and education.

Educational Initiatives

- Learning Across New Dimensions in Science (L.A.N.D.S) Program
 - Vehicle for introducing environmental science into middle school classrooms.
- BMP Demonstration Areas
 - Washington County Fairgrounds



Watershed Coordinator

- Seek funding for a Watershed Coordinator position located in the watershed to coordinate implementation.
 - Provide oversight of project activities.
 - Seek funding for project partners.
 - Organize/coordinate meetings and educational programs.

Implementing Management Measures in Mill Creek



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Implementation

- Proposed actions are broken out into two categories:
 - Management Measures
 - Outreach and Education
- Includes new efforts as well as those that are already planned, underway, or ongoing.

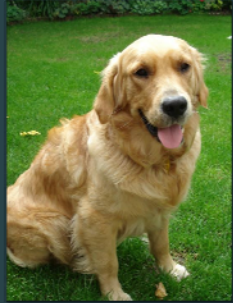
Implementation

For each management measure and outreach/education activity we must identify:

- Frequency and/or extent of management measure implementation.
- Schedules and/or milestones.
- Responsible entity.
- Estimated cost.
- Technical and financial assistance needs.

Urban Management Measures

- Dog Waste
 - Spay/neuter programs
 - Pet waste stations
- Stormwater
 - Stormwater assessments
 - Enhance stormwater practices
 - Modify stormwater conveyance systems



Wastewater Management Measures

- SSO Initiative
 - Sewer line testing/replacement
 - Lift station modifications
- Septic Systems (OSSF)
 - Repair
 - Replacement
 - Decommissioning



Wastewater Management Measures

- Household Hazardous Waste, Electronics Recycling, Tire Collection, etc.
 - Frequency
 - Cost
- Ag Chemical Collection Days
 - Frequency
 - Cost



Agricultural Management Measures

- Water Quality Management Plans (WQMP)
 - WQMP Technician position
 - WQMP development/implementation funds
- Non-Domestic Animal Management
 - Regional feral hog position
 - Feral hog traps

Monitoring Components

- Targeted Water Quality Monitoring
 - Monthly subwatershed level sampling
 - Bi-annual wet/dry weather sampling
- Comprehensive Stream Assessments
- Wildlife Surveys
- Bacterial Source Tracking

Outreach and Education

- Educational trainings and workshops
- Public school education programs (L.A.N.D.S.)
- Outreach and advertising
- Soil & Water testing campaigns
- Community stream cleanup events

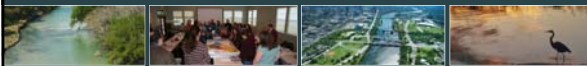
Watershed Coordinator

- New position located in the watershed to coordinate implementation.
 - Provide oversight of project activities.
 - Seek funding for project partners.
 - Organize/coordinate meetings and educational programs.

Technical & Financial Assistance

- Technical Assistance
 - Watershed coordinator
 - WQMP technician
 - State/Federal agency personnel
- Financial Assistance
 - Grant funding
 - Incentive programs
 - No/Low interest loans

Measures of Success



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Mill Creek
March 30, 2015



Measures of Success

Intended to track progress and support “Adaptive Implementation” by:

- Setting goals and milestones for implementation of management measures and in-stream water quality.
- Performing sampling and analysis to track implementation effectiveness.

Adaptive Implementation

Tracking and adjusting implementation efforts as needed based on new information.

1. Setting goals and milestones for implementation and in-stream water quality.
2. Tracking management measure implementation.
3. Collecting and analyzing data.
4. Adjusting implementation strategy as needed.

Goals and Milestones

- Set goals and milestones for implementing management measures.
 - Number of management measures implemented.
 - Timeline for implementing management measures.
- Set goals and milestones for in-stream water quality.

Goals and Milestones

- 10 year implementation timeline

Year	E. coli Concentration cfu/100mL
2016	192
2019	166
2022	139
2025	113

Tracking Implementation Progress

- Track implementation of management measures.
 - Identify what measures are working, and which aren't.
 - Compare implementation progress to in-stream water quality.

Sampling and Analysis

Intended to track progress and support adaptive implementation.

- Continued targeted water quality monitoring.
- Biological stream assessments.
- Bacterial Source Tracking, if needed.
- Update SELECT analysis, if needed.

Next Steps in the Planning Process



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Mill Creek
March 30, 2015



Meeting Dates and Times

- Partnership meetings are slated for the last Monday of each month @ 6pm.
- Will be held here, at the Bleiblerville VFD.
- Next meetings:

May 18 ?

June 1 ?



April 27 Meeting

- Continue discussion on Measures of Success (Section 7)
 - Continued monitoring
- Continue discussion on Implementation (Section 8)
 - Management measures
 - Timeline
 - \$\$\$

Website: <http://millcreek.tamu.edu>

- Clearinghouse for all information related to the Partnership
 - Meeting info
 - Email list signup
 - Event registration
- Maps, data, publications and useful links will all be available on the website
 - <http://millcreek.tamu.edu>



Contact Info

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SAVE THE DATE

Mill Creek Partnership Meeting

May 18, 2015: 6pm

Here at the Bleiberville VFD
