# **Watershed Based Plan**

### Name of Project

Cold Creek 303(d) Watershed

### **Lead Organization**

Lauderdale County Soil Conservation District

## **Cooperating Organizations**

- 1. The Lauderdale County Soil Conservation District – Technical and administrative direction
- 2. Tennessee Department of Agriculture Technical and financial assistance



- 4. The University of Tennessee Extension Service Educational and technical assistance
- 5. The Lauderdale County Livestock Association Educational, community outreach and research pertinent to the project
- 6. Tennessee Department of Environment and Conservation (TDEC) Monitoring of Cold Creek to determine when it can be removed from the 303(d) listing
- 7. The Lauderdale County Farm Service Agency (FSA) Community outreach

#### Watershed Identification

Cold Creek is listed as a 303(d) stream on the 2008 303d list. Cold Creek Watershed is located on the west side of Lauderdale County. The HUC# is 080101000305

### **Causes and Sources of Nonpoint Source Pollution in the Watershed**

It consists of 42.2 miles of impaired water and encompasses 16,257 acres of drainage. The primary pollutant source is listed as pasture grazing. The watershed also receives excessive erosion from the uplands due to row cropping. It is a category 5 stream containing Escherichia coli and is listed as having a high TMDL priority rating.

#### **BMP List**

Selected best management practices include, but are not limited to:
Alternative Watering Sources
Butterfly Gardens
Diversions
Fencing for Livestock Exclusion
Grade Control Structures
Heavy Use Areas
Nutrient Management for Precision Farming

Pasture and Hayland Planting
Pollinator Habitats
Stream Crossings
Other BMPs may be approved on a case by case basis as the need arises.

**Educational Activities –** The Lauderdale County Soil Conservation District, NRCS, University of Tennessee Extension Service and the Lauderdale County Livestock Association will jointly work to educate the public. All educational activities will be documented on paper or digitally.



Picture courtesy of Lauderdale Cattlemen's Association

In the first year a public meeting will be held. In addition, there will be a mail-out specifically to landowners and residents within the watershed. A brochure for landowners will be designed and mailed to landowners and residents within the watershed with information concerning ways to restore the Cold Creek through NRCS. The SCD will seek to educate local citizens about new opportunities such as butterfly gardens, and pollinator habitats as well as other practices that create/increase wildlife habitats (such as the creation of shallow water habitats). The Lauderdale County Soil Conservation Office will utilize local papers, The Lauderdale Voice and The Lauderdale County Enterprise, to feature the introduction of, present efforts of, and information concerning BMP incentive programs along with contact information for interested parties. \*Attention will be given to newer practices that local citizens may not be aware of. There will be a field day involving local public schools, with special attention given to stream restoration and ways to prevent stream pollution, will be conducted.

Every year after the first year a public meeting will be held. In addition, there will be a mail-out to landowners and residents within the watershed about the activities and opportunities available to them through NRCS to help restore Cold Creek. The local newspapers will continue to be a link within the community featuring the information on and present efforts of NRCS and the local SCD to restore this stream to it's intended uses. On the second and final year of the project there will be a formal Tour of Installed BMPs to continue education to landowners, residents and community. In the third and fourth years of the project, there will be informal tours given to reinforce the work that is being done toward stream renovation.

#### Budget

BMP Name	Quantity	Cost/Unit	Budget Estimate
Heavy Use Areas (Feeding Pads)	20	\$2,500.00	\$50,000.00
Alternative Watering Sources	20	\$2,000.00	\$40,000.00
Fencing	10000	\$1.20	\$12,000.00
Grade Controls Structures	30	\$5,000.00	\$150,000.00
Nutrient Management (Precision Farming)	5000	\$75.50	\$377,500.00
Pasture and Hayland Planting	50	\$200.00	\$10,000.00
Other BMP's			\$40,000.00

Educational Event	Quantity	Cost/Unit	Budge Estimate
Supplies	1	\$ 4,000.00	\$ 4,000.00
Postage & Shipping	1	\$ 1,000.00	\$ 1,000.00

Total Budget of Project:	\$684,500.00
Salaries & Benefits	\$100,000.00
Total	\$784,500.00

#### **Timeline & Tasks**

### 1<sup>st</sup> year – 2010

- Within one month of the contract start date, a public meeting will be held. In addition, there will be a mail-out specifically to landowners and residents within the watershed.
- Within two months of the contract start date, a brochure for landowners will be designed and mailed to landowners and residents within the watershed with information concerning BMPs.
- The Lauderdale County Soil Conservation Office will utilize the local newspapers, The Lauderdale Voice and The Lauderdale County Enterprise, to feature the introduction, present efforts, and information concerning BMP incentive programs along with contact information for interested parties.
- Within the first six months, a field day involving local public schools, with special attention given to stream restoration and ways to prevent stream pollution, will be conducted.
- Within the first year of the contract, 10 BMPs will be installed.
- Funding for BMPs in contract year one will be installed by September 30<sup>th</sup>.
- Submit Progress and Close-Out Reports per contract specifications.
- Submit an Annual Report by Sept. 15<sup>th</sup> in lieu of the standard progress report on September 30<sup>th</sup>, on activities and accomplishments throughout the past year (photos included).

### 2<sup>nd</sup> year – 2011

- Within one month of the start of the 2<sup>nd</sup> contract year, a public meeting will be held. In addition, there will be a mail-out specifically to landowners and residents within the watershed.
- Within six months, a Tour of Installed BMPs in the watershed will be conducted to evaluate the effectiveness, and continue education to landowners, residents and the community.
- The Lauderdale County Soil Conservation Office will utilize the local newspapers, The Lauderdale Voice and The Lauderdale County Enterprise, to feature the present efforts and information concerning BMP incentive programs along with contact information for interested parties.
- Within this year of the contract, 20 BMPs will be installed. \*This number is subject to change as watershed support for the BMPs increases. This will be reevaluated yearly and may drive the need for change in promotion of the project.
- Funding for BMPs in contract year two will be installed by September 30<sup>th</sup>.
- Submit Progress and Close-Out Reports per contract specifications.

 Submit an Annual Report by Sept. 15<sup>th</sup> in lieu of the standard progress report on September 30<sup>th</sup> on activities and accomplishments throughout the past year (photos included).

# 3<sup>rd</sup> year – 2012

- Within one month of the start of the 3<sup>rd</sup> contract year, a public meeting will be held. In addition, there will be a mail-out specifically to landowners and residents within the watershed.
- Conduct informal field tours of installed BMPs in the watershed to evaluate the
  effectiveness, and continue education to landowners, residents and the
  community.
- The Lauderdale County Soil Conservation Office will utilize the local newspapers, The Lauderdale Voice and The Lauderdale County Enterprise, to feature the present efforts and information concerning BMP incentive programs along with contact information for interested parties.
- Within this year of the contract, 30 BMPs will be installed. \*This number is subject to change as watershed support for the BMPs increases. This will be reevaluated yearly.
- Funding for BMPs in contract year three will be installed by September 30<sup>th</sup>.
- Submit Progress and Close-Out Reports per contract specifications.
- Submit an Annual Report by Sept. 15<sup>th</sup> in lieu of the standard progress report on September 30<sup>th</sup>, on activities and accomplishments throughout the past year (photos included).

### 4<sup>th</sup> year – 2013

- Within one month of the start of the 4<sup>th</sup> contract year, a public meeting will be held. In addition, there will be a mail-out specifically to landowners and residents within the watershed.
- Conduct informal field tours of installed BMPs in the watershed to evaluate the
  effectiveness, and continue education to landowners, residents and the
  community.
- The Lauderdale County Soil Conservation Office will utilize the local newspapers, The Lauderdale Voice and The Lauderdale County Enterprise, to feature the present efforts and information concerning BMP incentive programs along with contact information for interested parties.
- Funding for BMPs in contract year four will be installed by September 30<sup>th</sup>.
- Within this year of the contract, 40 BMPs will be installed. \*This number is subject to change as watershed support for the BMPs increases. This will be reevaluated yearly.
- Submit Progress and Close-Out Reports per contract specifications.
- Submit an Annual Report by Sept. 15<sup>th</sup> in lieu of the standard progress report on September 30<sup>th</sup>, on activities and accomplishments throughout the past year (photos included).

# 5<sup>th</sup> year – 2014

- Within one month of the beginning of the 5<sup>th</sup> year, a public meeting will be held. In addition, there will be a mail-out specifically to landowners and residents within the watershed.
- Within six months of the beginning of the 5<sup>th</sup> contract year, a Tour of Installed BMPs in the watershed will be conducted to evaluate the effectiveness, and continue education to landowners, residents and the community.

- The Lauderdale County Soil Conservation Office will utilize the local newspapers, The Lauderdale Voice and The Lauderdale County Enterprise, to feature the present efforts and information concerning BMP incentive programs along with contact information for interested parties.
- Within this year of the contract, 50 BMPs will be installed during contract year five
- Funding for BMPs in contract year five will be installed by September 30<sup>th</sup>.
- Submit Progress and Close-Out Reports per contract specifications.
- Submit an Annual Report by Sept. 15<sup>th</sup> in lieu of the standard progress report on September 30<sup>th</sup>, on activities and accomplishments throughout the past year (photos included).
- In order to give a final summary of the previous 5 years, a final Contract Report will be submitted.

## **Assessment of Progress**

Those within the lead organizations will assess progress informally as BMPs are installed and through field tours with the landowners. All involved parties will discuss the success and adjust the schedule as needed. Each year there will be a Progress and Close-Out Report as well as an Annual Report. At the time of the writing of these reports all involved parties will discuss the success and adjust the schedule as needed. Modifications will be made based on the findings and progress over the year, as well as the discussion of those involved in the implementation of the plan. There are also assessments and the ability to modify mentioned in each year's task list above.

### **Monitoring / Documenting Success**

Restoration success will be monitored by coordinating with TDEC-Water Pollution Control Field Office in Jackson, TN. Restoration activities will be reported to the Water Pollution Control Field Office so that their watershed assessments and sampling stations can be scheduled / located to track progress of the restoration work. Success of this project will be partially measured by the number of BMP's established during the course of the project. The ultimate measurement of success for the project will be the delisting of Cold Creek from the 303d list. Educational outreach and documentation of the project will provide the public and those involved with the project's progress and ultimate success.