

# THE TENNESSEE STREAM MITIGATION PROGRAM



## 2012 TSMP In-Lieu Fee Status Report

Reporting Period: January 1, 2012 through December 31, 2012



**US Army Corps  
of Engineers**®

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# Executive Summary

Since its inception in 2003, the Tennessee Stream Mitigation Program (TSMP) has been one alternative for providing mitigation for unavoidable stream impacts permitted through §404/401 of the Clean Water Act. The TSMP is committed to providing ecologically substantial mitigation on degraded streams to improve in-stream and riparian habitat. Employing principles of natural channel design and process-based methodologies, the TSMP continues to identify and develop restoration and enhancement projects across the state.

As outlined in federal guidance and the Memorandum of Agreement under which the TSMP was established, basic program requirements include: fiscal management, project identification, evaluation, development, design, implementation, monitoring, maintenance and long term management. The TSMP is required to submit an annual status report to the US Army Corps of Engineers (USACE) and the Tennessee Department of Environment and Conservation (TDEC) as well as the Interagency Review Team (IRT). At the request of the USACE, the format of these annual reports has been modified for public notice. As such, this report will provide detailed program information from January 1, 2012 through December 31, 2012.

## Programmatic Accomplishments

Programmatic accomplishments during 2012 include:

- Accepted the compensatory mitigation responsibility for 26,169 credits
- Developed and/or implemented five projects totaling approximately 53,853 linear feet and approximately 37,175 credits
- Provided monitoring for nine projects totaling approximately 67,332 linear feet and approximately 47,253 credits
- Performed adaptive management on two projects totaling approximately 22,978 linear feet and approximately 13,268 credits
- Provided long term management for eleven projects totaling 92,528 linear feet and 47,123 credits
- Coordinated and funded a statewide regional curve and bedload study effort

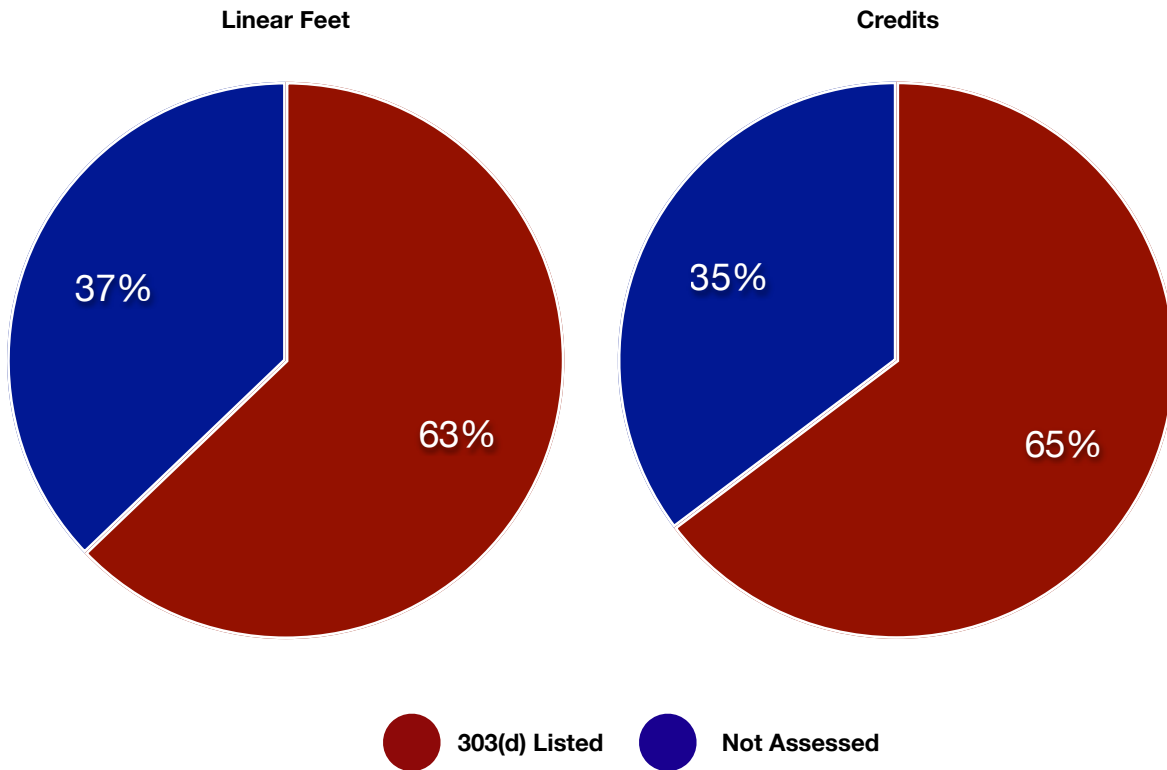
## Project-Related Accomplishments

As of December 31, 2012, twenty-seven active restoration/enhancement projects were in some phase of development, design, implementation, adaptive management, monitoring or long term management. These projects, located in eighteen different river basins (8-Digit HUC), will result in the restoration/enhancement and perpetual protection of approximately 236,691 linear feet of stream generating approximately 144,819 credits.

The TSMP gives preference to potential projects on 303(d) listed streams, especially streams with impairments to physical habitat. Where possible, the TSMP develops projects to offset or mitigate for impairments such as habitat alteration from channelization, siltation due to excessive bank erosion, pathogens or organic enrichment from unrestricted livestock access, or nitrates from degraded riparian buffers. The TSMP strives to identify and develop projects that have the greatest ecological benefit and impact on water quality.

Of the twenty-seven active TSMP projects, nineteen of these projects are located on 303(d) streams or in 303(d) watersheds. Approximately 148,732 linear feet or 63% of the total linear feet of restoration/enhancement projects occur

in 303(d) watersheds while 87,959 linear feet or 37% of the total linear feet occur in non-assessed 303(d) watersheds. These figures represent 93,738 credits or 65% of the total credits in 303(d) watersheds while 51,081 credits or 35% of the total credits were generated in non-assessed watersheds. These statistics are represented graphically below.



# 2012 Status Summary

## Program History

In August 2002, the TSMP was established as Tennessee's first in-lieu-fee program. Administered by the Tennessee Wildlife Resources Foundation (TWRP), a 501(c)(3) non-profit, the TSMP is one mitigation alternative for impacts associated with §404/401 water quality permits. At the discretion of the USACE and TDEC, permittees may purchase credits from a mitigation bank, purchase mitigation through an established in-lieu-fee program or provide their own on-site or near-site mitigation. The TSMP accepts the responsibility for providing compensatory mitigation at the rate of \$200.00 per credit.

The TSMP's goal is to provide ecologically substantial compensatory mitigation through the restoration and/or enhancement of degraded streams. By combining relatively small, incremental impacts within a geographic area, the TSMP can fund large-scale restoration/enhancement projects to improve in-stream and riparian habitat.

## TSMP Partnerships

The TSMP has developed strategic partnerships with state and federal resources agencies, non-profit environmental organizations, and local municipalities to facilitate the identification, development, and implementation of mitigation projects. Through partnerships, the TSMP can provide funding for on-going watershed initiatives through stream restoration. TSMP partners are important stakeholders with a vested interest in a project. Partners typically assist with landowner coordination/negotiation as well as community education and outreach. By partnering, the TSMP and other groups are able to leverage resources that enable all involved organizations to achieve programmatic goals while producing results that benefit both the landowners and the environment. Also, during 2012, the TSMP facilitated the development of strategic partnerships with both state and federal agencies to continue the development of regional curves in Tennessee.

## TSMP Permitted Impacts Summary

During 2012, the TSMP accepted the mitigation responsibility for 26,169 credits. As of December 31, 2012, the TSMP had accepted the liability for 203,824 credits and had produced 144,819 credits through IRT approved projects. This represents an 71% mitigation rate for all credits sold versus credits produced since the inception of the TSMP.

## TSMP Financial Status

As of December 31, 2012, total assets equaled \$9,842,365 while accrued liabilities totaled \$479,733 giving the mitigation fund an end of year equity balance of \$9,362,632. The mitigation fund received deposits totaling \$5,233,800 while reflecting an accounts receivable balance of \$352,400. The program account also earned a total of \$48,538 from interest bearing accounts as mandated by our MOA. Total expenditures for 2012 equaled \$5,991,183 of which \$5,910,990 were program/project related expenditures and the remaining \$80,193 were general and administrative expenditures. Detailed 2012 accrued project expenditures can be seen in the table below.

Project Name	Work Performed 2012	2012 Expenditures	Expenditures to Date
Beasley Creek	Implementation	\$ 1,457,678	\$ 2,331,849
Burrough's Hollow	Monitoring	\$ 8,544	\$ 216,032
Cole Creek	Long Term Management	\$ 0	\$ 482,288
Crooked Creek	Long Term Management	\$ 22	\$ 1,013,180
Flat Fork	Monitoring	\$ 48,115	\$ 2,815,972
Friar Branch	Monitoring	\$ 14,088	\$ 1,196,742
Green Valley	Implementation	\$ 568,714	\$ 998,753
Kyle's Ford	Long Term Management	\$ 540	\$ 895,860
Leiper's Fork	Monitoring	\$ 20,703	\$ 1,465,588
Marble Springs	Long Term Management	\$ 394	\$ 480,098
May Prairie	Development	\$ 7,234	\$ 7,234
Middle Fork Creek	Implementation	\$ 1,008,737	\$ 1,882,086
Mill Creek	Monitoring	\$ 7,365	\$ 237,885

Project Name	Work Performed 2012	2012 Expenditures	Expenditures to Date
Murfrees Fork	Monitoring	\$ 17,934	\$ 1,292,537
North Fork Mud Creek	Implementation	\$ 358,836	\$ 2,675,910
Pavilion Branch	Long Term Management	\$ 0	\$ 678,513
Pond Creek	Long Term Management	\$ 0	\$ 391,652
Robinson Creek	Monitoring	\$ 58,964	\$ 635,697
Roseberry Creek	Monitoring	\$ 8,183	\$ 367,998
Sevenmile Creek	Long Term Management	\$ 246	\$ 276,676
Sugar Creek	Monitoring	\$ 86,569	\$ 1,809,265
Third Creek	Long Term Management	\$ 250	\$ 1,185,795
Turnbull Creek	Long Term Management	\$ 0	\$ 340,090
UT Wolf River	Monitoring	\$ 14,962	\$ 1,862,093
West Harpeth River	Long Term Management	\$ 247	\$ 1,758,312
West Piney River	Implementation	\$ 1,661,259	\$ 1,860,322
Yanahli	Long Term Management	\$ 343	\$ 164,578

## Project Selection Process

A substantial amount of time is allocated to project identification, evaluation and development. In accordance with the MOA, the TSMP must evaluate impacts and identify suitable mitigation projects based upon the following criteria:

- Preference to the same Level III Ecoregion (Griffith, G.E., et.al., 1997), 6 digit HUC, or, ideally, same 8 digit HUC as the impacts.
- Generally locate projects on streams within one stream order as the impact streams.
- The ratio of urban to rural streams impacted should be generally replicated in project locations.
- All other factors being equal, priority should be given to 303(d) streams for which stream mitigation efforts may provide a means to alleviate the causes or sources of water quality and/or habitat impairment.

When evaluating a potential mitigation site, the TSMP completes a habitat assessment based upon EPA's Rapid Bio-Assessment Protocol (RBP) as well as a morphological assessment to evaluate valley type, stream type, channel stability and stage of channel evolution. These assessments help to determine if enhancement or restoration measures are necessary. A concept plan is then developed for landowner review. Participating landowners must be willing to convey a perpetual conservation easement. If the landowner agrees to the approach outlined in the concept plan and the required easement boundary, then a scope, fee estimate, and construction budget is developed for IRT approval. Under the TSMP's streamlined procedures, the entire process from identification to construction can now be completed in twelve to eighteen months depending on the type and complexity of the project.

## Status of TSMP Projects

As of December 31, 2012, the TSMP had twenty-seven active approved projects that were in some phase of development, design, implementation, adaptive management, monitoring or long term management. An overview of each approved active project can be found below.

Project Name	8 Digit HUC	Treatment type(s)	Project Length	Credits
Beasley Creek	08010210	Restoration	16,209	10,806
Burrough's Hollow	05130106	Restoration	940	661
Cole Creek	08010209	Restoration, Enhancement I	4,564	2,262
Crooked Creek	06040001	Restoration	11,986	8,556
Flat Fork	06010208	Restoration	12,940	11,469
Friar's Branch	06020001	Restoration	7,310	5,242
Green Valley	05130108	Restoration	7,069	5,265
Kyle's Ford	06010205	Restoration	18,234	5,538
Leiper's Fork	05130204	Restoration	12,274	7,416
Marble Springs	06010201	Restoration	3,020	2,013
May Prairie	06040002	Restoration	4,205	2,879
Middle Fork Creek	08010205	Restoration	7,747	7,524
Mill Creek	05130202	Restoration	2,385	1,325
Murfrees Fork	05130204	Restoration	9,901	7,256
North Fork Mud Creek	06040005	Restoration	17,950	9,905
Pavilion Branch	05130202	Restoration	4,916	4,849
Pond Creek	08010204	Restoration	2,707	2,041
Robinson Creek	06030003	Restoration	5,028	3,363
Roseberry Creek	06010104	Restoration	2,384	1,505
Sevenmile Creek	05130202	Enhancement II	3,700	1,233
Sugar Creek	06040003	Restoration	9,727	5,556
Third Creek	06010201	Restoration	7,601	5,092
Turnbull Creek	05130204	Enhancement II	4,430	1,476
UT Wolf River	08010210	Restoration	9,471	6,823
West Harpeth River	05130204	Restoration	15,350	10,058
West Piney River	06040003	Restoration	18,623	10,701
Yanahli	06040002	Enhancement 1	16,020	4,005