

TR-399

Conservation Practice Modeling Guide for SWAT and APEX

D. Waidler, M. White, E. Steglich, S. Wang, J. Williams, C. A. Jones, R. Srinivasan

- [Full Text](#)

Present day watershed management and water quality research strategies require an inclusive approach allowing for analysis of pollutant loadings from multiple sources including rural lands, urbanized areas, and riparian corridors. The selection and implementation of management strategies is dependent upon accurate modeling of proposed management scenarios.

The use of computer driven soil and water modeling systems such as the Soil and Water Assessment Tool (SWAT) and Agricultural Policy Extender (APEX) has enhanced the ability of environmental managers, researchers, government officials, and urban planners to analyze current conditions and predict future impacts of land use changes on water quality. Despite the innovation of these technologies, modelers are often required to account for the changes in pollutant and sediment loadings resulting from the implementation of approved conservation practices such as filter strips, bioretention areas, and pervious pavement.

This parallel development of computer modeling and sound conservation practices calls for the creation of a comprehensive guide to modeling that will provide traditional and new constituencies the convenience of a single source for information to assist water quality planning efforts. By assembling the existing data for practice design, application, and model inputs into a user-friendly manual, the modelers and other beneficiaries will no longer need to engage in lengthy and exhaustive research to determine the conservation practices that will allow for the desired pollutant reductions.

The Conservation Practice Modeling Guide is a "living" document formatted to allow for innovations in modeling inputs for existing and new practices as each are developed.

Texas Water Resources Institute

1500 Research Parkway A110
2260 TAMU
College Station, TX 77843-2260

Phone:
979.845.1851
Fax: 979.845.0662
Email:
twri@tamu.edu

TWRI and the [Texas A&M Institute of Renewable Natural Resources](#) are working together to foster and communicate research and educational outreach programs focused on water and natural resources science and management issues in Texas and beyond.



[Compact with Texans](#) | [Privacy and Security](#) | [Accessibility Policy](#) | [State Link Policy](#) | [Statewide Search](#) | [Plug-ins](#) | [Veterans Benefits](#)
[Military Families](#) | [Texas Homeland Security](#) | [Open Records/Public Information](#) | [Equal Opportunity Statement](#) | [Risk, Fraud & Misconduct Hotline](#)

© 2013 All rights reserved. Problem with this page? Contact: twri-webmaster@tamu.edu



[SSO](#) |

[CANOPY](#)