

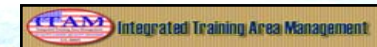
PROGRAMS TO MONITOR AND COMBAT SOIL EROSION ON FORT HOOD TRAINING LANDS

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ABSTRACT

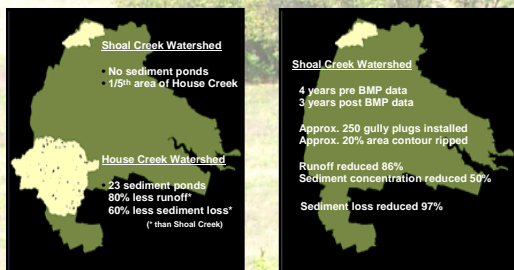
Primary training maneuver lands receive the bulk of natural resource disturbance on U.S. Army installations. Foremost amongst disturbance is the impacts of training on erosion processes and the result on sustainability of training lands and surrounding ecosystems. In partnership with III Corps, Garrison Command, Directorate of Public Works, Integrated Training Area Management at Fort Hood and the USDA-Natural Resources Conservation Service, the Texas Agricultural Experiment Station has implemented a series of programs to evaluate impacts of Best Management Practices in the continuing battle to reduce degradation of and sustainability of high quality training lands for U.S. Army military training activities.

Monitoring Existing BMP's

Fort Hood Best Management Practices



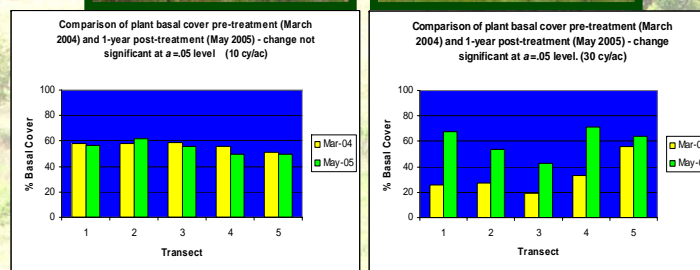
OUTCOMES



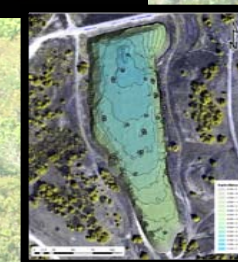
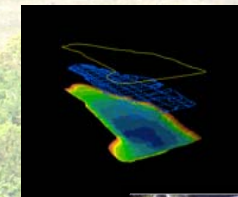
Evaluating New BMP's



OUTCOMES



Predicting Impacts of BMP's



BATHEMETRY

Current Objectives:

- Develop data accumulation method suitable for data acquisition on small ponds
- Use computer modeling technology to evaluate/analyze the data (ArcMap 9.0)
- Calculate the current capacity of each retention pond

Future Objectives:

- Calculate sedimentation rate from successive surveys
- Project retention pond life expectancy

SWAT MODELING – Soil Water Assessment Tool

TAES researchers are currently calibrating the Soil/Water Assessment Tool (SWAT Model) for predicting efficacy of BMP's and future estimates of sediment loadings in local riparian systems

