

Water Resources Assessment Team (WRAT)

Lead Scientist: Tim Dybala (USDA-NRCS)

BACKGROUND

Fifteen years ago Texas NRCS recognized the benefits computer models developed by ARS and Texas AgriLife Research could have in addressing water quality/quantity issues in the state. To use of this new technology, a staff of NRCS employees known as the Water Resource Assessment Team (WRAT) was located at Grassland/Blackland to work directly with scientists and researchers. In exchange for assistance with using the models, we provide feedback for improvement based on field experience as we study small watersheds over the State. Our current team consists of three people:

- Tim Dybala, Civil Engineer, Team Leader
Work Experience: Watershed Planning Staff, Lubbock, Harlingen, & Abilene
- Carl Amonett, Soil Conservationist
Work Experience: Center, Livingston, Kountze
- Todd Marek, Civil Engineer
Work Experience: Design Staff, Denton, Lubbock

This multi-agency effort has been underway since 1992. Housing our agencies in the same center promotes teamwork and benefits all. The partnership between ARS, Texas AgriLife Research, NRCS, and others allows for pooling of technical resources, funding, in-kind services and transfer of technology. National office NRCS personnel are also co-located at the Research Center. They have been able to utilize the same models, GIS, and databases to assess national and regional water resources under diverse management conditions.

The potential for modeling for watershed management and non-point source pollution assessment has also been recognized by others. Over the past 15 years we have applied the model for various clients including River Authorities, Water Districts, Estuary Programs, and State Agencies. Following is a listing of our projects and partnerships.

PROJECTS

- Tarrant Region Water District water quality phase I & II
- Lake Aquilla sediment &BMPs studies
- Lake Granger sediment & BMPs studies
- Lake Limestone sediment study
- Lake Waco water quality study
- Upper Colorado River brush control study
- Concho River brush control & wildlife studies
- Wichita River brush control study
- Oak Creek Reservoir sediment study
- Lake Trammell sediment study
- Corpus Christi Bay water quality study
- Lower Colorado River sediment study
- Lake Arrowhead brush control study
- APEX NRI nutrient study
- 7 Lakes 319(h) Atrazine study
- Leon River CEAP study
- PL-566 Sediment studies
- Toledo Bend & Sam Rayburn nutrient study

PARTNERS

- Texas AgriLife Research
- Agricultural Research Service
- Tarrant Regional Water District
- Alan Plummer Associates, Inc.
- Brazos River Authority
- Texas State Soil and Water Conservation Board
- Upper Colorado River Authority
- RC&D council
- Environmental Protection Agency
- Corpus Christi Bay National Estuary Program
- United States Geological Survey
- Lower Colorado River Authority
- United States Army Corps of Engineers
- Red River Authority