United States Department of Agriculture – Natural Resources Conservation Service (NRCS)

Who We Are:

The Natural Resources Conservation Service (NRCS) staff here in Temple, TX is composed of two teams of scientists who work to inform USDA leadership and Congress on the impacts of current and alternative conservation programs and natural resources legislation.

- **Water Resources Assessment Team** – use the SWAT (Soil and Water Assessment Tool) and APEX (Agricultural Policy/Environmental eXtender) models to address water quality and quantity issues in the state and developed the SWAT/GIS (Geographic Information System) interface.
- **Soil Science and Resource Assessment Division (RAD Modeling Team)** – using the SWAT, APEX, and PHYGROW models, provides modeling support to the National Resources Inventory, Soil and Water Conservation Act, and the Conservation Effects Assessment Project.

Working with Texas A&M and USDA Agricultural Research Service scientists (ARS), the teams apply modeling techniques to answer cutting edge questions about the impacts of conservation practices on natural resource sustainability, especially in terms of water quality and agricultural field edge losses, watershed losses, and deliveries of nutrients and sediment to the Gulf of Mexico.

National Resources Inventory

- The National Resources Inventory (NRI) is the nation's most extensive statistical survey of land cover, land use, and natural resource conditions and trends on non-federal lands. This data is used to determine resource conditions and conservation practice impacts on agricultural land across the country. The NRCS Resource Inventory Division leads the NRI effort, but relies on modeling support from the Temple team. The NRCS modeling team in Temple also applies NRI data to other modeling efforts in the agency.

Soil and Water Resources Conservation Act

- The Resources Conservation Act (RCA) of 1977 gave USDA the authority to appraise the status and trends of soil, water, and related resources on non-federal land and to assess sustainability of those resources; evaluate current and needed programs, policies, and authorities; and develop a national soil and water conservation program to guide USDA soil and water conservation activities. The NRCS-RAD team models conservation practice costs and benefits and simulates alternative management strategies and scenarios.

Conservation Effects Assessment Project

- The Conservation Effects Assessment Project (CEAP) is a multi-agency effort to quantify the environmental benefits of implemented conservation practices and programs. CEAP uses literature reviews, modeling, farmer surveys, watershed assessments, ecological site descriptions, soil surveys, and regional studies in collaboration with partners in universities, federal/state agencies, and conservation organizations to conduct national assessments for cropland, grazing lands, wetlands, and wildlife.

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Natural Resources Conservation Service (NRCS) Scientists

Soil Science and Resource Assessment Division – Modeling Team

- **Lee Norfleet** (Ph.D., University of Kentucky) is the Model Team Leader for the USDA – NRCS Soil Science and Resource Assessment Division. Dr. Norfleet serves as lead for the modeling team that supports the assessments produced through the cropland and grazing lands components of the Conservation Effects Assessment Project (CEAP). He also provides guidance to the National Resources Inventory (NRI) surveys to ensure the resulting data can be used to effectively evaluate the benefits of conservation programs and practices on wildlife, grazing lands, croplands, and wetland ecosystems. Dr. Norfleet often spends time educating the scientific community about the models and projects the team is involved with and serves as a vital point of contact for networking between his team and NRCS and also with outside partners and other government agencies.
- **Jay D. Atwood** (Ph. D., Iowa State University), is an Agricultural Economist with the USDA - NRCS, Resource Assessment Division's CEAP modeling team. Dr. Atwood's primary research focus is on Cost and Benefit assessment of cropland conservation treatment. Dr. Atwood is also responsible for managing the CEAP cropland management survey data, including preparation of the input data, adjusting datasets for scenario analysis, and summarization of the modeling results.
- **Evelyn Steglich** (M.S. Texas A&M University) is a Natural Resources Specialist with the USDA- NRCS Modeling Team. She is responsible for interface development for use with the models and helps to create and expand training programs and user support for those who use the models in their own research.
- **Loretta J. Metz** (B.S., Dual major, University of Arizona) is a CEAP Rangeland Management Specialist. She provides oversight, direction, data analysis and interpretation to the CEAP-Grazing Lands modeling effort on rangeland and pastureland throughout the U.S. She works closely with developers of process-based models (eg., APEX, ALMANAC, etc.) to establish parameters and develop upgrades suited for grazing land applications.
- **Mari-Vaughn V. Johnson** (Dual Ph.D. Texas A&M University and Texas A&M University – Kingsville) provides analytical support to assessments of and recommendations towards national and regional-scale agriculture and natural resource conservation policy, with emphasis on water and soil quality, food security, and sustainability of other ecosystem services. She helps establish partnerships and professional interaction with NRCS, Universities, NGOs, professional societies, and State and Local governments to facilitates an effective exchange of ideas towards the development of conservation science objectives.
- **Ann Kinney** (B.S., University of Phoenix). Editor. Working with the CEAP Team editing and preparing technical documents for publication. Works for the NRCS Soil Science Division at the Federal building in Temple, TX.

Water Resources Assessment Team

- **Tim Dybala** (B.S. Texas A&M University) serves as a Professional Engineer for the USDA – NRCS Water Resources Assessment Team, developing databases and his field experience and expertise in using models to provide valuable feedback to researchers for model enhancement.
- **Chris Lester** (B.S., Oklahoma State University) who serves as a Soil Conservationist for the USDA-NRCS Water Resources Assessment Team, assists in the multi-agency CEAP collaboration efforts in modeling and assessing water quality measures on a national scale.
- **Maria E. Hrebik**, P.E. (B.S., New Mexico State University) who serves as a Civil Engineer for the USDA-NRCS Water Resources Assessment Team, assists in the multi-agency CEAP collaboration efforts in modeling and assessing water quality measures on a national scale.

Regional Modeling Team

- **Glenn Stanisewski** serves as the East Region Modeling Coordinator (Amherst, MA) for NRCS; working with CEAP (Conservation Effects Assessment Project) projects and watershed studies in the eastern part of the U.S.
- **Charles M. Ogg** serves as the South East Region Modeling Unit Coordinator (Auburn, AL) for NRCS.
- **Carrie-Ann Houdeshell**, (M.S., University of California-Riverside),works with Regional and MLRA Soil Survey Offices in the Western United States.
- **Drew Kinney**, (M.S., University of Wyoming), works with Regional and MLRA Soil Survey Offices in the Central United States.