

Part 304 - Purpose, Implementation, Timeframe, Definitions, Responsibilities, and Coordination for Wind Erosion Prediction System (WEPS)

304.0 Purpose

- A. This document contains instructions that the Natural Resources Conservation Service (NRCS) will follow when implementing the Wind Erosion Prediction System (WEPS), Version 1, replacing the Wind Erosion Equation (WEQ). These instructions cover the implementation process until this model is fully implemented, and as long as this model remains the official agency tool for prediction of erosion by wind. NRCS program policy may provide specific procedures for using this model or other models in the process of implementing a specific program.
- B. Existing NRCS policy guiding the use of erosion prediction models ([General Manual 450, Part 402, Amendment 13](#)) reflects the use of this new model.

304.1 Implementation Timeframe

- A. WEPS will be fully implemented in all NRCS field offices where wind erosion is a resource concern by the end of FY 2010. WEPS replaces WEQ, which lacked the science and data to predict erosion in many erosive areas of the United States; the erosion rates of existing systems will change somewhat with the new model. Full implementation is achieved when the model has been loaded on field office Common Computing Environment (CCE) computers, databases and management templates have been loaded, and staffs have been trained to run this model.
- B. The official NRCS version of WEPS is the only version to be used for official purposes by NRCS field office employees. The national agronomist will identify the official version of WEPS and notify Regions and States through appropriate channels when updated versions are available, and where and how it can be accessed. National/Regional train-the-trainer sessions for State erosion specialists may begin as early as March 2010. The field office training will begin after each State specialist has been trained. Use of the official model may begin prior to September 30, 2010, unless prohibited by specific program policy.
- C. During the first year of use (2010) new versions of WEPS may be issued and additional databases issued to add new crops, operations, or managements as needed. After the first year, new versions of WEPS will only be issued once a year.
- D. Four regional "Train the Trainers" sessions are planned. State wind erosions specialists are encouraged to attend one of the sessions before training field office staff. The sessions will be 2 days in length (travel before and after), and cover: all training materials available, all 8 exercises in the users guide, new additions to the main interface, file management, and making local State runs. The planned dates are:

| Date | Location | Region | Contact |
|--------------------|----------------|---------|--|
| May 24-27, 2010 | Fort Worth, TX | Central | Bill Kuenstler, NTSC, Central (817) 509-3363 |
| June 14-17, 2010 | Tucson, AZ | West | Rick Fasching, NTSC, West (503) 273-2425 |
| June 21-24, 2010 | St. Paul, MN | Central | Bill Kuenstler, NTSC, Central (817) 509-3363 |
| August 16-19, 2010 | Greensboro, NC | East | Gene Hardee, NTSC, East (336) 370-3365 |

304.2 Definitions

- A. WEPS 1.0 is a complete replacement of WEQ. It is primarily a process-based, daily time-step computer model in a Windows environment that predicts soil erosion by wind.
- B. The National Technology Support Centers (NTSC) in each region are the contacts to assist States and the Pacific Islands and Caribbean Areas (hereinafter referred to as States) coordinate technology needs, training, development, and delivery to the field.

304.3 Responsibilities

- A. The Deputy Chief for Science and Technology is responsible for issuing national policy and instructions related to erosion prediction technology.
- B. Regional Conservationists are responsible for coordinating the implementation of erosion prediction technology with adjoining regions and States.
- C. State Conservationists and Directors of the Pacific Islands and Caribbean Areas are responsible for implementing erosion prediction technology according to national policy/instructions, and for coordinating the implementation of erosion prediction technology with adjoining States.

- D. The national agronomist is responsible for preparation of national policy and instructions pertaining to erosion prediction technology.
- E. The national specialist for wind erosion is responsible for assisting Regions and States with implementation and application of wind erosion prediction models. This position works under the leadership of the national agronomist and with the Agricultural Research Service scientists to develop and transfer the erosion prediction technologies that meet NRCS needs. This position works directly with the erosion database coordinator in developing and maintaining databases and with the WEPS regional contacts to transfer and apply technology. The position provides national coordination for the development of crop, operation, management, climate, and wind databases.
- F. The NTSC agronomist/erosion specialists will serve as the primary WEPS trainers to the States in their region, and provide information and recommendations to the national wind erosion specialist. In addition, the regional contacts will work closely with the national database coordinator. Regional contacts and the national wind erosion specialist will be key training coordinators for the "Train the Trainers" sessions in the second quarter of FY 2010.
- G. The database coordinator is responsible for coordinating and maintaining the official NRCS RUSLE2 and WEPS databases. In addition, this position assists in the coordination and development of crop, operation, management, climate, and wind databases for WEPS.
- H. Each State-designated agronomist/erosion specialist has in-State responsibility for implementation of WEPS, including coordination with adjoining States, ensuring that all needed databases and templates are available, training field users, and delivering models to field office computers. The State agronomist or erosion specialist with in-State responsibility for implementation of WEPS will assist in establishing new management files needed for WEPS in the appropriate Crop Management Zones. The new management files will then be sent to the appropriate Crop Management Zone Manager who will, in turn, send the new management files to the national database manager to post to the national database. The State-designated agronomist/erosion specialist is also responsible for requesting through the regional contacts, national wind erosion specialist, or the database coordinator the new operations and crops needed for the model.
- I. Each State soil scientist is responsible for populating and maintaining data elements needed by WEPS, and for ensuring that the Toolkit download of the National Soil Information System data for each soil survey area is completed.
- J. The ARS and NRCS are responsible for creating initial site-specific climate data files that will be used in WEPS. Both wind and climate data will be maintained by NRCS after the implementation period (2010).

304.4 National and Regional Coordination

- A. Implementation of WEPS will be coordinated nationally to ensure consistency and uniformity between States and regions. Soil loss estimates are to be similar across State and regional boundaries for closely related climate, crop management scenarios, soils, and landscapes.
- B. The WEPS regional contacts, the national wind erosion specialist, and the national database coordinator will work together on data management. All data that supports this erosion model will be consistent and uniform between States and Regions.
- C. The regional agronomists/erosion specialists will assist the national implementation effort by monitoring technology transfer and training needs within the region to ensure that NRCS and its partnership workforce continues to be recognized as experts in natural resources planning and application.