

Siddaway, 1965. "A Wind Erosion Equation," Soil Science Society of America Proceedings, Vol. 29, No. 5, pages 602-608, which is available from the American Society of Agronomy, Madison, Wisconsin. In addition, the use of the WEQ in NRCS is explained in the Natural Resources Conservation Service (NRCS) National Agronomy Manual, 190-V-NAM, second ed., Part 502, March, 1988, which is available from the NRCS, P.O. Box 2890, Washington, DC 20013.)

(b) [Reserved]

(c) The factors in the WEQ equation are defined as follows:

(1) *E* is the estimation of the average annual soil loss in tons per acre.

(2) *f* indicates the equation includes functional relationships that are not straight-line mathematical calculations.

(3) *I* is the soil erodibility index. It is the potential for soil loss from a wide, level, unsheltered, isolated field with a bare, smooth, loose and uncrusted surface. Soil erodibility is based on soil surface texture, calcium carbonate content, and percent clay.

(4) *K* is the ridge roughness factor. It is a measure of the effect of ridges formed by tillage and planting implementations on wind erosion. The ridge roughness is based on ridge spacing, height, and erosive wind directions in relation to the ridge direction

(5) *C* is the climatic factor. It is a measure of the erosive potential of the wind speed and surface moisture at a given location compared with the same factors at Garden City, Kansas. The annual climatic factor at Garden City is arbitrarily set at 100. All climatic factor values are expressed as a percentage of that at Garden City.

(6) *L* is the unsheltered distance. It is the unsheltered distance across an erodible field, measured along the prevailing wind erosion direction. This distance is measured beginning at a stable border on the upwind side and continuing downward to the nonerodible or stable area, or to the downwind edge of the area being evaluated.

(7) *V* is the vegetative cover factor. It accounts for the kind, amount, and orientation of growing plants or plant residue on the soil surface.

#### § 610.14 Use of USLE, RUSLE, and WEQ.

(a) All Highly Erodible Land (HEL) determinations are based on the formulas set forth in 7 CFR § 12.21 using some of the factors from the USLE and WEQ and the factor values that were contained in the local Field Office Technical Guide (FOTG) as of January 1, 1990. In addition, this includes the soil loss tolerance values used in those formulas for determining HEL. The soil loss tolerance value is used as one of the criteria for planning soil conservation systems. These values are available in the FOTG in the local field office of the Natural Resources Conservation Service.

(b) RUSLE will be used to:

(1)(i) Evaluate the soil loss estimates of conservation systems contained in the FOTG.

(ii) Evaluate the soil loss estimates of systems actually applied, where those systems were applied differently than specified in the conservation plan adopted by the producer or where a conservation plan was not developed, in determining whether a producer has complied with the HEL conservation provisions of the Food Security Act of 1985, as amended, 16 U.S.C. § 3801 *et seq.*, set forth in 7 CFR Part 12; and

(2) Develop new or revised conservation plans.

### PART 611—SOIL SURVEYS

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SOURCE: 39 FR 7415, Feb. 26, 1974, unless otherwise noted.

## Subpart A—General

### § 611.1 Purpose and scope.

(a) This part sets forth policy on soil survey operations of the Natural Resources Conservation Service (NRCS).

(b) NRCS is responsible for soil survey activities of the U.S. Department of Agriculture (USDA). A soil survey provides (1) an orderly, on-the-ground, scientific inventory of soil resources according to their potentialities and problems of use, and (2) information about each kind of soil in sufficient detail to meet all reasonable needs of farmers, agricultural technicians, community planners, engineers, and scientists in planning and transferring the findings of research and experience to specific land areas.

### § 611.2 Cooperative relationships.

(a) Soil surveys on nonfederal lands are carried out cooperatively with state agricultural experiment stations and other state agencies. The cooperative effort is evidenced in a memorandum of understanding setting forth guidelines for actions to be taken by each cooperating party in the performance of soil surveys. Similar cooperative arrangements exist between NRCS and other federal agencies for soil surveys on federal lands.

(b) Arrangements for nonfederal financial participation in the cost of soil surveys may be made with states, counties, soil conservation districts, planning agencies, and other local groups.

## Subpart B—Soil Survey Operations

### § 611.10 Standards, guidelines, and plans.

(a) NRCS conducts soil surveys under national standards and guidelines for naming, classifying, and interpreting soils and for publishing soil surveys in the USDA series.

(b) A soil survey work plan of a county or area of similar size that is to be completed for publication is prepared prior to the start of each soil survey. The work plan provides information relevant to the conduct and publication of the soil survey. The plan is signed by representatives of NRCS, land grant universities, and in some

states representatives of other state agencies. Federal land administering agencies also sign the work plan if federal lands are included in the survey.

### § 611.11 Reproduction and distribution of soil survey information.

(a) *Published soil surveys.* (1) When soil survey field work is completed on a designated area, NRCS publishes the soil survey as soon as possible so that the information will be available to the public. The published soil survey includes soil maps, soil descriptions, and soil interpretations for appropriate uses such as farming, engineering, range, woodland, recreation, and wildlife.

(2) Each party cooperating with NRCS in a soil survey will receive without cost 50 copies of the published soil survey. Prior to publication each may order additional copies at printing cost by preparing a special amendment to the soil survey work plan.

(3) The number of copies to be published and the distribution of a published soil survey are coordinated by NRCS with those cooperating in the survey and with the U.S. Senators from the state and the U.S. Representative from the congressional district in which the survey was made.

(4) Copies of published soil surveys are sent by the Superintendent of Documents, U.S. Government Printing Office, to depository libraries that have requested them. Copies also are sent to interested agencies that have requested them.

(5) Published soil surveys may be obtained without charge if available, from NRCS field and state offices, and from respective members of the United States Senate and House of Representatives. Land grant universities also may have copies. When the supply is exhausted, reference copies generally are available from libraries or on inter-library loan.

(b) *Interim soil reports.* (1) State and local units of government and others may need soil survey information for subdivision, town, or county planning, tax assessment, and other uses prior to the time a soil survey is published. NRCS may prepare interim reports to provide soil survey information to meet these needs.

(2) Interim soil reports may include copies of soil survey field sheets, soil descriptions, and soil interpretive maps and tables showing the general rating of each kind of soil for various uses such as farming, range, woodland, engineering, recreation, and wildlife.

(c) *Resource conservation plan data.* Information prepared specifically for use in developing resource conservation plans for soil conservation district co-operators is considered confidential. Soil maps and interpretations prepared for this use will not be made available to others without the consent of the landowner as well as the district governing body. However, copies of soil survey field sheets and related data from which the conservation plan was developed may be purchased from the local NRCS field office with prior approval from the NRCS state office. The purchase is subject to the fee schedule cited in § 1.2(b) of this title.

(d) *Identity of advance reproductions.* Advance reproductions of individual soil survey field sheets include the name of the soil survey area, the state, the names of the parties cooperating in the survey, date of survey, map scale, and necessary precautionary notes.

[39 FR 7415, Feb. 26, 1974, as amended at 39 FR 27553, July 29, 1974]

### Subpart C—Cartographic Operations

#### § 611.20 Function.

The NRCS Cartographic Division provides cartographic services needed to carry out NRCS functions. Cartographic services include general cartography, photogrammetry, aerial photography, planimetric and topographic mapping, drafting, and specialized types of reproduction.

#### § 611.21 Availability of aerial photography.

The Cartographic Division obtains necessary clearance for all aerial photography for NRCS. New aerial photography of designated areas in the United States is obtained yearly by NRCS through competitive contracting. This photography is obtained only after it is determined that imagery of these areas available from other sources does not

meet NRCS scale and quality requirements. Orders for reproductions of NRCS aerial photography are subject to the fee schedule cited in § 1.2(b) of this title. Order reproductions from the Cartographic Division, USDA—Natural Resources Conservation Service, Federal Center Building, No. 1, Hyattsville, Maryland 20782.

#### § 611.22 Availability of satellite imagery.

Cloud-free maps of the United States based on imagery received from a satellite are prepared and released to the public by NRCS. The maps offer the first image of the United States not obscured by clouds or distortions. Orders or requests for information should be directed to the Cartographic Division, USDA—Natural Resources Conservation Service, Federal Center Buildings, No. 1, Hyattsville, Maryland 20782. Orders are subject to the fee schedule cited in § 1.2(b) of this title.

### PART 612—SNOW SURVEYS AND WATER SUPPLY FORECASTS

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AUTHORITY: 26 Stat. 653; Sec. 8, Reorg. Plan No. IV of 1940, 54 Stat. 1234 (5 U.S.C. App. II); 5 FR 2421, 3 CFR 1938-1943 Comp. P. 1288.

SOURCE: 40 FR 12067, Mar. 17, 1975, unless otherwise noted.

#### § 612.1 Purpose and scope.

This part sets forth Natural Resources Conservation Service (NRCS) policy and procedure for the administration of a cooperative snow survey and water supply forecast program. The program provides agricultural water users and other water management groups in the western states area with water supply forecasts to enable them to plan for efficient water management. The program also provides the public and the scientific community with a data base that can be used