§ 12.21 Identification of highly erodible lands criteria.

(a) Basis for identification as highly erodible. Soil map units and an erodibility index will be used as the basis for identifying highly erodible land. The erodibility index for a soil is determined by dividing the potential average annual rate of erosion for each soil by its predetermined soil loss tolerance (T) value. The T value represents the maximum annual rate of soil erosion that could occur without causing a decline in long-term productivity. The equation for measuring erosion is described below.

(1) The potential average annual rate of sheet and rill erosion is estimated by multiplying the following factors of the Universal Soil Loss Equation (USLE):
   (i) Rainfall and runoff (R);
   (ii) The degree to which the soil resists water erosion (K); and
   (iii) The function (LS), which includes the effects of slope length (L) and steepness (S).

(2) The potential average annual rate of wind erosion is estimated by multiplying the following factors of the Wind Erosion Equation (WEQ): Climatic characterization of windspeed and surface soil moisture (C) and the degree to which soil resists wind erosion (I).

(3) The USLE is explained in the U.S. Department of Agriculture Handbook 537, “Predicting Rainfall Erosion Losses.” The WEQ is explained in the paper by Woodruff, N.P., and F. H. Siddaway, 1965, “A Wind Erosion Equation,” Soil Science Society of America Proceedings, Vol. 29, No. 5, pages 602-606. Values for all the factors used in these equations are contained in the NRCS field office technical guide and the references which are a part of the guide. The Universal Soil Loss Equation, the Revised Universal Soil Loss Equation, and the Wind Erosion Equation and the rules under which NRCS uses the equations are published at §§610.11 through 610.15 of this title.

(b) Highly erodible. A soil map unit shall be determined to be highly erodible if either the RKLST/T or the C/T value for the map unit equals or exceeds 8.

(c) Potentially highly erodible. Whenever a soil map unit description contains a range of a slope length and steepness characteristics that produce a range of LS values which result in RKLS/T quotients both above and below 8, the soil map unit will be entered on the list of highly erodible soil map units as “potentially highly erodible.” The final determination of erodibility for an individual field containing these soil map unit delineations will be made by an on-site investigation.

[61 FR 47025, Sept. 6, 1996; 61 FR 53491, Oct. 11, 1996]

§ 12.22 Highly erodible field determination criteria.

(a) Predominance. Highly erodible land shall be considered to be predominant on a field if either:
   (1) 33.33 percent or more of the total field acreage is identified as soil map units which are highly erodible; or
   (2) 50 or more acres in such field are identified as soil map units which are highly erodible.

(b) Modification of field boundaries. A person may request the modification of field boundaries for the purpose of excluding highly erodible land from a field. Such a request must be submitted to, and is subject to the approval of, FSA. FSA shall use the technical determination of NRCS in approving this request.

(c) Impact of changing field boundaries. When field boundaries are changed to include areas of land that were included in a field that was previously determined to be predominately highly erodible according to paragraph (a) of this section, such areas shall continue to be subject to the requirements for predominately highly erodible fields, except as provided in paragraph (b) of this section.
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§ 12.23 Conservation plans and conservation systems.

(a) Use of field office technical guide. A conservation plan or conservation system developed for the purposes of §12.5(a) must be based on, and to the extent practicable conform with, the NRCS field office technical guide in use at the time the plan is developed or revised. For highly erodible croplands which were used to produce agricultural commodities prior to December 23, 1985, the applicable conservation systems in the field office technical guide are designed to achieve substantial reductions in soil erosion. Conservation systems shall be technically and economically feasible; based on local resource conditions and available conservation technology; cost-effective; and shall not cause undue economic hardship on the person applying the conservation system. Any conservation plans or systems that were approved prior to July 3, 1996, are deemed to be in compliance with this paragraph.

(b) Substantial reduction in soil erosion. For the purpose of determining whether there is a substantial reduction in soil erosion on a field containing highly erodible cropland which was used to produce an agricultural commodity prior to December 23, 1985, the measurement of erosion reduction achieved by applying a conservation plan or system shall be based on a comparison of the estimated annual level of erosion that is expected to occur on that portion of the field for which a conservation plan or system was developed and is being applied, to the estimated annual level of erosion that existed on that same portion of the field before the application of a conservation plan or system. On a field that is converted from native vegetation after July 3, 1996, and where any crop production will result in increased erosion, in no case will the required conservation plan or system permit a substantial increase in erosion.

(c) Field trials. NRCS may allow a person to include in the person’s conservation plan or a conservation system under the plan, on a field-trial basis, practices that are not currently approved but that NRCS considers have a reasonable likelihood of success. These trials must have prior approval by NRCS, and must be documented in the person’s conservation plan specifying the limited time period during which the field trial is in effect. If, at the end of the conservation field trial period, NRCS finds that the practice does not meet conservation compliance requirements, the person will not be ineligible for USDA program benefits during the period of the field trial.

(d) Highly erodible land previously under a Conservation Reserve Program contract. Any person who owns or operates highly erodible land that was under a Conservation Reserve Program contract as authorized by section 1231 of the Food Security Act of 1985, as amended, shall have 2 years after the expiration of termination of the contract to fully apply a conservation system if the conservation plan for such land requires the installation of structural measures for the production of an agricultural commodity. NRCS officials may extend this period one additional year for circumstances beyond the control of the person. The person shall not be required to meet a higher conservation standard than the standard applied to other highly erodible cropland located within the area served by the field office technical guide for the area in which the field is located.

(e) Information regarding conservation options. NRCS, in providing assistance to a person for the preparation or revision of a conservation plan under this part, will provide such person with information concerning cost-effective and applicable erosion control alternatives, crop flexibility, or other conservation assistance options that may be available.