

## **Part 530 – Hydrology**

### **Subpart B – Hydrologic Procedures and Criteria**

#### **530.10 General**

NRCS developed hydrologic procedures to assist in the planning and design of on-farm conservation practices, including water control structures; and to assess hydrology as part of plan development and design for project activities. Because structure or project costs range from several hundred to several million dollars, it is important to select the most suitable hydrologic procedure for a particular situation. Select the procedure to provide the desired level of accuracy and to complement other design procedures to ensure that the structure or project meets its functional objectives. NRCS developed hydrologic criteria for designing conservation practices and water control structures largely based on field experience. These criteria represent minimum acceptable standards consistent with the objectives of the practice or structure.

#### **530.11 Hydrologic Procedures**

Numerous NRCS-developed hydrologic procedures and computer models are available for making hydrologic analyses. Train all engineers and technicians in the proper use of NRCS hydrologic procedures and computer programs needed for the planning, design, and installation of conservation measures.

- (1) For on-farm conservation practices, the NRCS preference is to use procedures in Title 210, National Engineering Handbook (NEH), Part 650, “Engineering Field Handbook” (EFH), Chapter 2, Section 650.2, “Estimating Runoff and Peak Discharge,” and the associated computer program, EFH2, unless specifically excepted by the State conservation engineer (SCE).
- (2) To the maximum extent practicable, carry out hydrologic analyses of soil and water conservation practices using procedures in 210-NEH, Part 630, “Hydrology,” and other designated references, including the WinTR-55, “Small Watershed Hydrology,” and WinTR-20, “Computer Program for Project Formulation – Hydrology,” computer programs.
- (3) Since NRCS-developed procedures are not practical for use in all NRCS engineering work, use other designated references and procedures outside the scope of the 210-NEH with prior approval of the SCE.

#### **530.12 Hydrologic Criteria**

Use hydrologic criteria established in standards and directives for designing conservation practices and water control structures. If necessary, obtain exceptions to the use of national criteria from the Director, Conservation Engineering Division (CED). Include SCE recommendations for such exceptions in the request to the Director, CED.