

**NATURAL RESOURCES CONSERVATION SERVICE  
CONSERVATION PRACTICE STANDARD**

**DAM, MULTIPLE-PURPOSE**

**CODE 349**

**DEFINITION**

A dam, constructed across a stream or natural water course, with designed reservoir storage capacity specifically provided for two or more purposes such as floodwater retardation and irrigation water supply, municipal water supply, and recreation, etc. Does not include POND

**SCOPE**

This standard applies to dams which have separate storage allocations for two or more of the purposes listed below. (Sediment storage is not considered a separate purpose except under practice SEDIMENT BASIN (350).

**PURPOSE**

A multiple-purpose dam must provide distinct and specific storage allocations for 2 or more of the following purposes: (1) floodwater retardation, (2) irrigation, (3) fishing, hunting, boating, swimming, or other recreational use, (4) improved environment or habitat for fish or wildlife, (5) municipal, (6) industrial, and (7) other uses. (A pond where multiple use is made of the same storage allocation is considered a multiple-purpose dam.)

**CONDITIONS WHERE PRACTICE APPLIES**

This practice applies only to sites meeting all the following criteria:

- Topographic, geologic, hydrologic, and soil conditions at the proposed site are satisfactory for the development of a feasible dam and reservoir.
- The drainage area above the pond must not have less than 75 percent land adequately

treated and must be protected against erosion to the extent that expected sedimentation will not shorten the planned effective life of the structure.

- Water is available from a single or combined source of surface runoff, base flow, or from subsurface storage in sufficient quantity and adequate quality to satisfy the intended purposes.

**DESIGN CRITERIA**

These design criteria are minimums for structures under the scope of this standard. More conservative design criteria should be used for structures approaching the purview of Technical Release 60. Multiple-purpose dams of above normal importance or of a hydraulic class and size under the purview of Technical Release 60 shall be designed to the standards set in that Technical Release.

**Foundation, Embankment and Spillway Requirements**

All dams designed under this standard shall meet or exceed the foundation, embankment, and spillway criteria as called for in SCS Engineering Standard for POND (378) or Technical Release 60 whichever is applicable.

**Floodwater Retarding Pool and Spillway Requirements**

Dams with a floodwater retarding purpose shall meet or exceed the principal spillway and emergency spillway requirements of SCS Engineering Standard for FLOODWATER RETARDING STRUCTURE (402).

Conservation practice standards are reviewed periodically, and updated if needed. To obtain the current version of this standard, contact the Natural Resource Conservation Service.

## **DAM, MULTIPLE-PURPOSE (349)-2 Statewide**

### **Outlet Works**

Outlet works discharging releases for several purposes shall have adequate capacity to carry the peak flow resulting from the combined demands at any time. Outlet conduits and appurtenances shall be designed to criteria that are equal to or better than that called for in SCS Engineering Standard for POND (378).

### **Storage Requirements**

The usable storage capacity shall be adequate for all purposes, considering seasonal variations in demand and the expected losses from seepage and evaporation .

#### **Sediment Storage**

Capacity in addition to that required for all other purposes must be provided to offset depletion by sediment accumulation for a period equal to the design life.

### **Type of Structures**

All dams and appurtenances shall be designed to meet applicable SCS standards for the type and class of structure involved.

### **State Laws**

Laws concerning water use and pollution abatement shall be complied with.

## **PLANS AND SPECIFICATIONS**

Plans and specifications for installation of Multiple-Purpose Dams shall be in keeping with this standard and shall describe the requirements for application of the practice to achieve its intended purpose. Construction and Material Specifications applicable to Dam, Multiple-Purpose will be selected from those listed in Nebraska Construction and Materials Specifications.