



Conservation Practice Overview

October 2020

Irrigation Land Leveling (Code 464)

Irrigation land leveling is reshaping the surface of the irrigated land to the planned lines and grades. Land leveling also improves water use efficiency.

Practice Information

The purpose of land leveling is to permit the uniform and efficient application of surface irrigation water without significant erosion, loss of water quality, soil damage, or crop damage due to prolonged saturation.



This practice requires a detailed engineering survey, design, and layout.

Implementation of this practice requires cutting and filling earth material to achieve the designed grades. The earth moving typically damages the topsoil. The soil damage is generally temporary and may be offset by increased crop yields and subsequent increases in organic material returned to the soil. In all cases, following construction, the root zone remains that will permit satisfactory crop production with proper conservation measures. Limited areas of shallow soils may be leveled to provide adequate irrigation grades or an improved field alignment.

This practice applies to land that is suitable for irrigation and the proposed method of irrigation. In addition, water supplies, and irrigation delivery facilities should be sufficient to make irrigation practical for the crops to be grown and the planned water application method.

The minimum lifespan of this practice is 15 years. The operation and maintenance on leveled fields includes the periodic removal or grading of mounds and depressions. Land grading may periodically be needed to restore the design gradient.

Common Associated Practices

Conservation Practice Standard, Irrigation Land Leveling, Code 464, commonly applies with Conservation Practice Standards such as: Irrigation System, Surface and Subsurface, Code 443; Irrigation Water Management, Code 449; and Irrigation System, Tailwater Recovery, Code 447.

For further information contact your local NRCS field office.