



## Conservation Practice Standard Overview

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### Irrigation Land Leveling (Code 464)

Irrigation land leveling is reshaping the surface of irrigated land to planned lines and grades, improving water use efficiency.

#### Practice Information

The purpose of land leveling is to permit uniform and efficient application of surface irrigation water without significant erosion, loss of water quality, or damage to soil and crops from 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 usually damages the topsoil somewhat, but the 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 of the soil must be sufficiently deep that, after leveling, an adequate, usable 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 maintenance on leveled fields includes the periodic removal or grading of mounds and/or depressions. Land grading may periodically be needed to restore the design gradient.

#### Common Associated Practices

Irrigation Land Leveling (Code 464) is commonly applied with conservation practices 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.