

# Irrigation in the Rio Grande Basin



Irrigation in the basin is dependent upon two main sources of water:

- Groundwater, which is the water stored in both the confined and unconfined aquifers
- Surface water, which is the water found in the streams and rivers in the basin that flows as a result of runoff.

Surface water use is dependent upon how much water is available in a given year and the position of a water user's water rights within the priority system.

Groundwater use is dependent upon aquifer conditions. If conditions need to improve, then pumping can be limited and in some cases stopped altogether.

*Irrigation in the Rio Grande Basin is an important aspect of the agricultural economy and culture. From its very settlement to today, water users in the San Luis Valley have depended upon the water sources available in the basin to irrigate farmland.*

*Irrigation is done primarily in one of two ways, either through flood irrigation or sprinkler irrigation. Flood irrigation was the initial method of irrigation, but with technological advances and less and less water available, irrigation through different sprinkler systems has become increasingly prevalent in the basin because of their efficiency and increased productive value.*

*The irrigation season in the Valley usually begins around the beginning of April, and ends in October or November. During this season, farmers can divert and use the water they have rights to based on their position in the priority system.*

The Rio Grande Basin contains around 523,000 irrigated acres.

The main crops grown in the basin are alfalfa, potatoes, oats, barley, and grass for hay.

Agriculture accounts for 29% of the Basin's base economy, contributing around \$490.6 million to the Valley's economy annually.

Flood irrigation is around 45-55% efficient.

Sprinkler Irrigation is around 55-85% efficient.

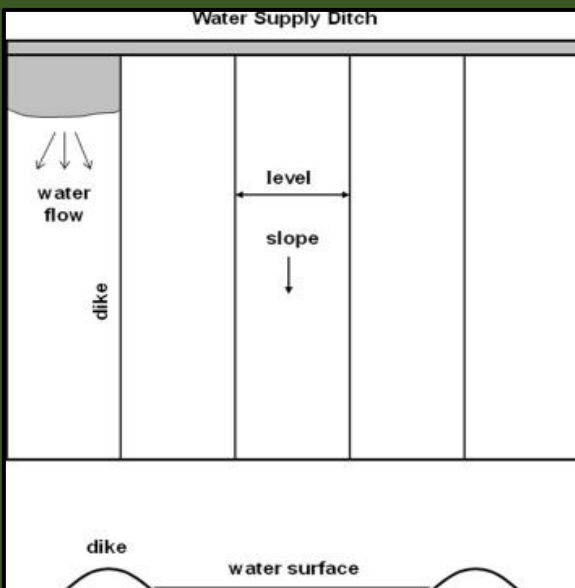


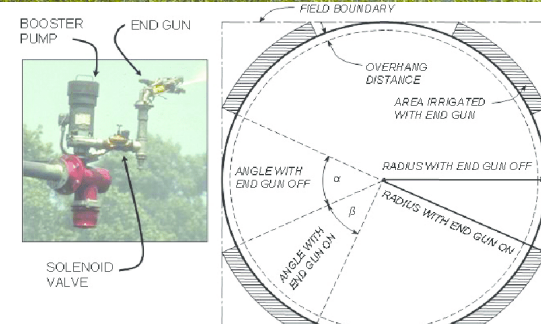
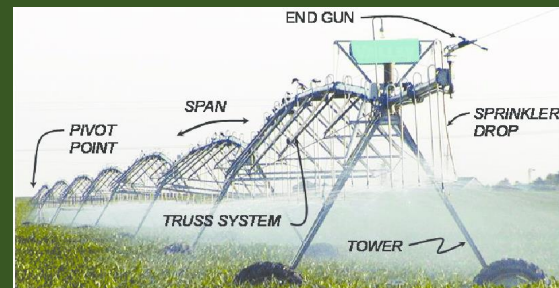
Diagram illustrating flood irrigation.



A wheel line sprinkler system.



Siphon tubes used for flood irrigation.



Center pivot irrigation system.