

Irrigation Water Management (IWM) with Hiflow Irrigation Turnouts and Laser Land Leveling

BASIC REQUIREMENTS

1. **FIELDS MUST BE LASER LEVELED** – High precision leveling eliminates “pockets” of standing water that reduce efficiency due to deep percolation. Slopes can be as flat as 0.0001 ft/ft.
2. **HIGH FLOW RATE and SMOOTH FIELDS** - This is important in order to get water across the field as quickly as possible – Directly related to time of opportunity.
3. **DESIGN GUIDELINES** – The width at the outlet should be about 1 foot wide for each 1 cfs of capacity. The floor should be about 8 inches below the level of the field. The outside blocks on the last row should be joined to the side of the “wall” to prevent water from concentrating at the outside of the structure. The outlet should have a 1 inch high x 4 inches wide lip.

BENEFITS

1. **SAVES WATER** – Conventional surface systems use 6-9 inches of water per irrigation. Some Hiflow systems have the ability to apply less than 2 inches per irrigation.
2. **REDUCES IRRIGATION TIME** – Conventional surface systems routinely cover an acre an hour. Hiflow systems have increased that to over 9 acres an hour.
3. **PROTECTS GROUND WATER QUALITY** – Reduced leaching due to improved distribution of water.
4. **MISCELLANEOUS** – Works in any field shape. Especially suited to large (20 acres or more) fields and “permanent” applications such as orchards and long-term pastures and hay fields.

COST

1. **COST** – Current costs vary from a few hundred dollars for smaller structures (10 feet wide outlet) to \$1,500 for large structures (20 feet wide outlet). Ability to directly use canal gates often eliminates the need for ditches.

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