

Where do I go for help?

Soil & Water Conservation Districts

Jefferson County (541) 923-4358 x101
Crook County (541) 447-3548
Deschutes County (541) 923-2004

Central Oregon Watershed Councils

Trout/Willow Ck (541) 923-4358 x113
Crooked River (541) 447-3548
Upper Deschutes (541) 382-6103

SWCD's and watershed councils provide technical and financial assistance to landowners and have no regulatory role.

Central Oregon Extension Service

Prineville 447-6228
Deschutes
Jefferson 475-3808

Oregon Department of Agriculture

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All publications produced by ODA will be made available in alternate formats when needed

Ag Water Quality Management Area Plan and Rules

Oregon's Agricultural Water Quality Management Act (also known as SB1010) requires landowners to prevent and control water pollution from agricultural activities. This mandate led to the adoption of Water Quality Management Area Plans and Rules throughout the state.

The [Management Area Plan](#) provides information on water quality issues and recommends management practices.

Area Rules: Landowners in a Management Area must manage the following to prevent water pollution:

- Riparian vegetation
- Irrigation water diversions
- Manure and other wastes
- Sediment in irrigation tailwater
- Application of crop nutrients

These rules are enforced by the Oregon Department of Agriculture.

Landowners are responsible for conditions under their control. They are not responsible for conditions that are natural or a result of other landowners' activities or unusual weather events.

Landowners can contact the Jefferson County SWCD for technical and financial assistance. Ask them for your copy of the Middle Deschutes Area Plan and Rules.

Got Irrigation Water?



SUCCESSFUL IRRIGATION MAY BE MEASURED BY:

- Reduced water usage
- Reduced labor and costs
- Better, easier and lesser costs of operations and management
- May increase crop yields and improve quality
- Reduced power costs
- Improved downstream water quality.

Irrigation Water Management Tips

HAVE KNOWLEDGE OF THE DESIGN AND OPERATION OF YOUR SPRINKLER SYSTEM:

- Know the pump discharge, sprinkler head nozzle size & operating pressure at the nozzle, know sprinkler head spacing,
- Know time of set for amount of water that is needed. Know what the net depth of application is per irrigation set. **Question:** does this match your soil characteristics and crop water needs and irrigation system?

PROVIDE SELF- EVALUATION & MAINTENANCE OF IRRIGATION SYSTEM:

Sprinkler systems –

- Are all of the sprinkler heads/springs, etc. operating adequately? Are all sprinkler heads operating upright?
- Are the nozzles worn? Check with drill bits
- Are sprinkler heads operating at design pressure & discharge? Check with pressure gauge (with pilot tube) and calibrated container & stopwatch
- Are there leaky gaskets, fittings, valves, hoses, pipes, etc.?
- Is the pump(s) operating efficiently? Check discharge pressure and flow against pump performance curve, and check against electrical energy usage, i.e. wire to water efficiency.

Surface (flood) systems -

- Is excessive leakage occurring in the conveyance & distribution ditches?
- Are the head ditches maintained to be free of excessive grass & weeds?
- Is water applied to the field uniformly along the head ditch?
- Are the lengths of runs too long or too short, to match existing water inflow rate, soil characteristics, field slope, & crop?
- Is irrigation set time too long or too short to match existing inflow, soil characteristics, field slope, & crop?
- Are the corrugations/furrows carrying the water uniformly across the field?

IWM INVOLVES APPLYING IRRIGATION WATER UNIFORMLY & EFFICIENTLY:

- According to crop needs
- In amounts that can be held in the soil and be readily available to the crops, without excessive deep percolation losses and runoff. Excess water carries fertilizers in the runoff and into the ground water.
- At rates consistent with soil characteristics,
- So that downstream (surface and subsurface) water quality is maintained or improved
- Through an adequate & efficient irrigation application system



Check application efficiency

THE NET RESULTS OF PROPER IWM TYPICALLY:

- Prevents excessive use of water for irrigation purposes, i.e. divert & use only what is needed by conveying and applying irrigation water efficiently & wisely
- prevents excessive field erosion & downstream sedimentation
- Reduces labor time and resultant costs
- Minimizes pumping energy use and costs
- Maintains or improves quality of ground water and down stream surface water
- May increase crop yield and crop quality
- Reduces long term system maintenance costs

- Is there excessive runoff, where does it go, can it be collected in a pond and pumped back for reuse, or kept in the pond for wildlife use? Runoff carries fertilizers & livestock manure.
- Are the problems to great to solve, if so, one may need to convert to a sprinkler system.

SIMPLE TOOLS FOR CHECKING SPRINKLER SYSTEMS

- Soils - push split tube type probe (for checking soil moisture), or use a shovel, or use soil moisture sensors and meter
- Pressure gauge (0 – 100 psi) with pivot tube (for checking pressure at nozzles). Use a liquid filled pressure gauge.
- Drill bit set - standard set for max of ¼ inch drill (for checking nozzle/orifice diameter & worn condition)
- Misc. pipe fittings - for attaching pressure gauge at outlet of pump
- Calibrated container (5 gallon), stop watch, short piece of garden hose. This is used for checking flow the from sprinkler head nozzle, in gpm.



Checking nozzle pressure