

IRRIGATION SYSTEM PREVENTIVE MAINTENANCE

Big Horn Basin Irrigation Water Management Program

Like every piece of machinery, every irrigation system, from the pipe, the pump and driver to the sprinklers require a certain amount of care in handling, storage, and maintenance while you are preparing for another active irrigation season the next year. Preventive maintenance is a simple off-season task that will repay you many times the time and energy spent in the winter.

Most of the preventive maintenance is just good common sense. For example, any time machinery that includes ball bearings is stored; the bearings should be covered with a protective coating of lubricant. As weather changes – warm during the day and cold at night, moisture will condense from the air on cold surfaces. If the cold-bearing surfaces are protected with lubricant coating, the moisture won't rust the bearings.

Dust and small animals invariably settle in partially enclosed areas that are quiet and out of the weather. These areas make excellent nesting spots. To save yourself many hours of cleaning next spring, tape these openings, especially the smaller ones that will be hard to clean.

Conveyance System:

1. Drain all system components that are subject to freezing. If parts of the system cannot be drained, an anti-freeze solution may be added.
2. Check to make sure all valves and air vents are in and closed to provide protection to the pipeline.
3. Make sure all headgates are closed and open ends are plugged to avoid nesting of small animals in the pipe which may cause blockages come spring.
4. Avoid travel over pipelines, except in sections designed for traffic, especially when soil is saturated.

Aluminum and Plastic Pipe:

1. Inspect pipe ends to make certain that no damage has occurred. Ends should be round for best operation. A slightly tapered wooden plug of proper diameter can be used to round out the ends on aluminum pipe.
2. Pipe should be completely drained. Storing slightly inclined off the ground helps permit drainage and air circulation.
3. Avoid storing pipe in the immediate vicinity of acids, chemicals or animal waste.
4. Check pipes for any holes or corrosive spots and repair the damaged areas.
5. Check gated pipe for any broken or damaged gates and replace these.

Couplers and Gaskets:

1. It is best to remove gaskets and store in a plastic or canvas bag out of the sunlight. The sunlight and ozone in the air are damaging to rubber, so an airtight bag is best.
2. Store gaskets in a safe place away from rodents and chemicals.
3. If couplers can be removed from pipe, they should be stored in a safe place.

4. Clean couplers with clear water after gaskets are removed to eliminate any foreign matter that might have collected during operation.

Measuring Devices:

1. Measuring devices should be cleaned of all debris.
2. Check metal surfaces for rust and other damage. Repair damaged sections and apply paint as a protective covering.
3. Check for any settlement of device and correct as necessary.

Trash Cleaners:

1. All screens should be cleaned and checked for damage. Repair damage and apply paint as needed to prevent rusting.
2. All bearings, sprockets, chains and brushes should be checked for wear and greased. Any damaged or worn parts should be replaced as needed.
3. If cleaner is removable, it should be stored off the ground in a dry place.