

## Water Quality and Your Livestock Facilities

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Water is the most essential resource of a livestock enterprise? Therefore, it is no wonder that the availability of water and the quantity of water on livestock operations take priority over the quality of the water. However, today society has a goal to insure waters of the U.S. be of a swimmable/fishable quality. Livestock agriculture can play a major roll in assisting our nation in reaching this goal. Look at your ranch and answer the question, “Do the activities of my livestock operation, *protect* or *pollute* our waters?”

To assist producers evaluate their operation it will be helpful to have legal definitions of several terms. “**State Waters**” is a body of water, irrigation system, or drainage system, either surface or underground; except where irrigation waters are used up and not returned to state any other state waters. “**Animal Feeding Operation, AFO**”, is a lot or facility where animals are confined and fed for 45 days or more in any 12-month period and no crops, vegetation forage growth, or post-harvest residues are not sustained. “**Concentrated Animal Feeding Operation, CAFO**”, is an AFO that contains more than 1000 animal units; or it contains between 300 and 999 animal units and a discharge occurs through a man-made conveyance; or pollutants are discharged directly into state waters which originated outside the facility and passed over, across, or through the facility.

Nearly all operations have one or more locations that could be described as an AFO. The only AFO that requires a license or permit is a CAFO, which are considered a point source of pollution. This requirement is a Montana Pollutant Discharge Elimination System, MPDES, permit issued by the Montana Department of Environmental Quality, DEQ.

Livestock operators should be managing livestock lots, corrals and other holding facilities so they eliminate potential pollution of our state waters. This is a major provision of the Clean Water Action Plan. The Action Plan asks for all Animal Feeding Operations, AFOs, to voluntarily implement a Comprehensive Nutrient Management Plan, CNMP, by 2008. The CNMP will be a part of the MPDES permit issued to CAFOs.

Implementation of an effective CNMP on operations of less with less than 1000 animal units will most likely eliminate an AFO being classified as a CAFO, which requires the permit. The CNMP for Montana operators must at a minimum address five elements: Clean Water Diversions, Manure Handling and Storage, Land Application of Manure, Land Management, and Record Keeping.

Clean water diversions can be something as simple as a dike, terrace, or service road with ditches that control or directs the flow of runoff from land outside of the livestock facility. Rainfall and irrigation runoff from adjacent lands is considered to be clean water and should be diverted from contact with livestock lots, holding pens or stored/stacked manure. Manure handling and storage must maximize the distance to surface water and depth to ground water. Preventing the leakage of organic matter, nutrients, and pathogens to ground and surface water must be a part of building construction and maintenance as well as collection and conveyance systems. Land application and management must consider the nutrient content and value of livestock wastes as part of the crop yield goals. Manure application rates must not exceed the crop and soil capacity to assimilate nutrients. Method of application should prevent the loss of nutrients to surface and ground water. Record keeping must document the following: Number and types of livestock, Nitrogen and Phosphorus in the waste to be applied as well as the soil levels in the area of application, Nitrogen and Phosphorus crop requirements and the Quantity, timing and location of applied wastes. Records are to be kept for a minimum of three years.

Operators should take a pro-active approach by starting today developing a waste management plan. A simple one page narrative that addresses how your management is presently or plans to deal with the above mentioned elements will give you a step up and be in your file if there is ever a question about the affect your operation is having on the quality of the water associated with your operation.