

EXHIBIT A

SOURCE: MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

GENERAL WATER QUALITY FACT SHEET FOR ANIMAL FEEDING OPERATIONS (AFOs)

Introduction

This fact sheet describes Montana's Water Quality Act provisions for animal feeding operations. Montana defines an "Animal feeding operation" as a lot or facility (other than an aquatic animal production facility) where the following conditions are met:

- (i) animals have been, are, or will be stabled or confined and fed and maintained for a total of 45 days or more in any 12-month period; and
- (ii) crops, vegetation forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility (ARM 30-13, 17.30.1304).

An Animal Feeding Operation (AFO) of less than 300 animal units is considered a diffuse **non-point** water quality source provided:

- It is not a significant contributor to pollution (ARM 30-13, 17.30.1330).

An Animal Feeding Operation (AFO) of 300 to 1,000 animal units is considered a diffuse **non-point** water quality source provided:

- It does not discharge pollutants (animal wastes) "into state waters through a manmade ditch, flushing system or similar manmade device."
- It does not discharge pollutants (animal wastes) "directly into state waters which originate outside the facility and pass over, across, or through the facility or otherwise come into direct contact with the animals confined in the operation."
- It is not "a significant contributor of pollution to state waters. In making this designation the department shall consider: The size of the operation and the amount of wastes reaching state waters; the location of the facility relative to state waters; the means of conveyance of animal waste and process waste water to state waters; the slope, vegetation, rainfall and other factors affecting the likelihood of discharge" (ARM 30-13, 17.30.1330).

An animal feeding operation operating as a diffuse non-point source and which uses "reasonable land, soil, and water conservation practices" protecting beneficial water uses is not required to apply for a Montana Pollutant Discharge Elimination System (MPDES) discharge permit (MCA 75-5-317).

The Montana Water Quality Act

Montana relies on a non-regulatory approach to address non-point sources of pollution. Private landowners are encouraged to adopt "a voluntary program of reasonable soil, land and water conservation practices that result in meeting water quality standards" (MCA 75-5-703).

Water quality standards have been established to protect beneficial uses. Beneficial uses include aquatic life, recreation, fisheries, and industrial, domestic and agricultural water supply. When a river, lake or stream is determined to be polluted (not fully supporting its designated beneficial uses), it is included on the state's 303(d) list of impaired water bodies (see <http://cwaic.mt.gov/faq.aspx> for listing). State and

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Federal clean water laws require that Total Maximum Daily Loads (TMDLs) be developed for all water bodies on the 303(d) list. A TMDL *is the total amount of pollutant that a water body may receive from all sources without exceeding water quality standards*. A TMDL can also be defined as *a reduction in pollutant loading that result in meeting water quality standards*. Montana's approach is to include TMDLs as one component of comprehensive water quality restoration plans.

Pending completion of a TMDL/water quality restoration plan, new and expanded non-point source activities may commence and continue provided those activities are conducted in accordance with reasonable soil, land and water conservation practices. The Administrative Rules of Montana (17.30.602) define these as "methods, measures, or practices that protect present and reasonably anticipated beneficial uses." The Water Quality Act directs DEQ to recognize and give credit to pollution control measures implemented prior to the development of a TMDL/water quality restoration plan.

Water Quality Restoration and Total Maximum Daily Loads

Montana is using a watershed approach to facilitate and expedite development of water quality restoration plans. DEQ has divided the state into 91 watershed planning areas and adopted a schedule for completing restoration plans.

State law directs DEQ to consult with watershed groups and conservation districts during all phases of water quality restoration planning. DEQ requests the participation of farmers, ranchers, environmentalists and recreationists as well as representatives of the Department of Natural Resources and Conservation, the U.S. Forest Service, Bureau of Land Management, municipalities and the forest, tourism and mining industries. However, each watershed group reflects local land and water uses in the community. Conservation districts often take the lead in organizing watershed based efforts and serve as fiscal and administrative agents for watershed groups. Watershed groups and conservation districts determine their own level of participation in the planning process. Close collaboration with DEQ is essential to develop a scientifically defensible water quality plan in a timely manner.

Water Quality Restoration Plans (with TMDLs) Contain Seven Principal Components:

- 1. Watershed characterization** includes a description of the hydrology, water chemistry, topography, climate, vegetation, land use, land ownership, population, political boundaries and all other factors relevant to developing a water quality restoration plan.
- 2. Water quality classification** describes the impaired beneficial uses, the applicable state water quality standards and the 303(d) list status of water bodies in the watershed.
- 3. Pollutant source assessment** identifies where the pollution is coming from and calculates the relative contribution of all point, non-point and natural sources. Source assessment often requires additional water quality monitoring.
- 4. Water quality goals** measure the effectiveness of the restoration plan. Water quality goals are expressed as "water quality standards targets" and Total Maximum Daily Loads. Targets are measurable water quality end points. The target may be a numeric measure of a pollutant, such as "5 micrograms of phosphorous per liter of water," or the target may be a *surrogate*. An example of a surrogate target is "no more than 25 percent fine sediment in the stream bed." Plans often incorporate several targets. At least one of these targets should be linked to the restoration of beneficial uses. Interim benchmarks or milestones are often included in restoration plans to gauge progress toward long-term restoration goals and targets.

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5. Load allocations assign reductions to achieve the targets identified in the plan. The load may be divided by land use (rangeland, cropland), or activity (construction, timber harvest), or assigned to watershed sub-areas or stream tributaries. In a perfect world, the amount of load reduction would be proportionate to a source's contribution. However, this is not always feasible. The relative cost of achieving reduction targets may be greater for some contributors than others. State law requires DEQ to consider "the environmental, social and economic costs and benefits" of implementing a TMDL/water quality restoration plan (MCA 75-5-703).

6. The restoration/implementation strategy demonstrates that when implemented the plan will restore beneficial uses. Water quality restoration plans often identify and prioritize specific Best Management Practices (BMPs).

7. A long-term monitoring strategy is an integral part of the water quality restoration plan. The strategy should specify 1) the parameters to be monitored; 2) when and where the water body will be monitored; and 3) who will be responsible for doing and/or funding the monitoring. And, the **public involvement process** is based on local interest and need. It may include informational meetings, news releases and web-disseminated information as well as a thirty-day public comment period on the draft water quality restoration plan.

AFO Questions and Answers

WHAT IS AN ANIMAL UNIT?

An animal unit (AU) is a unit of measurement based on a 1,000-pound steer. A dairy cow equals 1.4 animal units; a horse 2 AUs; a pig .4 AUs; and a sheep .1 AUs.

HOW WILL THE TMDL PLANNING PROCESS AFFECT AFO OPERATORS?

The entire animal-feeding sector could be assigned an overall load allocation if they are significant source of pollutants impairing one or more beneficial uses. Pathogens, nutrients and sediment are the principle pollutants associated with animal feeding operations. The restoration/implementation strategy of the TMDL plan provides a conceptual framework for achieving the water quality targets. However, local watershed groups often develop a more detailed implementation plan that recommends specific best management practices, establishes milestones and identifies funding needs and resources.

WHAT ARE SOME BEST MANAGEMENT PRACTICES FOR AFOs?

- Locating corrals or feedlots well away from surface waters;
- Establishing vegetated buffer stripes between the feedlot and nearby water bodies;
- Directing runoff water to established and maintained filter strips (or similar BMPs);
- Storing manure so pollutants don't runoff or leach to surface or ground water;
- Applying manure to farmland when crops can utilize the nutrients and there is less risk of runoff or leaching
- Providing off-stream animal watering sites.

Best management practices are very site specific. Not all practices are applicable to or required on every farm.

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ARE AFO OPERATORS REQUIRED TO IMPLEMENT BMPs?

State law directs DEQ to “assist and inform” landowners in the *voluntary* application of reasonable soil, land and water conservation practices sufficient to achieve water quality standards (i.e., TMDL targets). These best management practices would be sufficient to protect state waters from significant pollutants from AFOs.

WHAT HAPPENS IF THE TMDL PLAN DOESN'T RESTORE WATER QUALITY?

If monitoring indicates that water quality standards are not being achieved five years after a plan is approved DEQ conducts a formal evaluation to determine if:

- 1) The implementation of new and improved management practices are necessary;
- 2) Water quality is improving but more time is needed to comply with water quality standards;
or,
- 3) Revisions to the plan are necessary to meet water quality standards.

Although it is an objective of the states *Non-point Source Management Plan* to implement water quality restoration plans within five years of EPA approval, DEQ recognizes that some water quality problems will not be resolved quickly or inexpensively. The mandated five-year evaluation will identify areas that require additional resources and greater efforts to restore beneficial uses.

HOW CAN AN AFO OPERATOR BE INVOLVED IN THE TMDL PLANNING PROCESS?

Agriculture producers are key stakeholders on local watershed groups that review TMDL/water quality restoration plans. Every TMDL has a 30-day public comment period for citizens to voice their concerns. There are often public informational meetings in the watershed to explain and discuss the draft TMDL/water quality restoration plan.

WHERE CAN AN AFO OPERATOR OBTAIN FINANCIAL AND TECHNICAL ASSISTANCE TO IMPLEMENT BMPs?

The best source of technical information on AFO BMPs is the Natural Resources Conservation Service. The USDA's Environmental Quality Incentives Program (EQIP) provides cost share for BMP implementation. The Water Pollution Control State Revolving Fund provides low interest loans for cost-effective non-point BMPs (contact Todd Teegarden (406) 444-5324 or tteegarden@state.mt.us).

HOW DOES A TMDL/WATER QUALITY RESTORATION PLAN BENEFIT AGRICULTURE PRODUCERS?

A TMDL plan reduces much of the uncertainty and ambiguity of water quality regulations. The TMDL plan lets farmers and ranchers know how much sediment, pathogen or nutrient discharge is too much. An AFO operator who implements the best management practices identified in the restoration strategy of a TMDL plan can be confident that they are in compliance with state and federal clean water laws. When implemented, a water quality restoration/TMDL plan makes the local community a better place to live. Swimming and other water-based recreation is safer; fishing is better. Landowners can take pride in addressing and solving resource issues at the local watershed level.

DEQ Watershed Program
October 17, 2002