



Cattle Producer's Handbook

Miscellaneous Section

1010

Concentrated Animal Feeding Operation Rules for Cow-Calf Enterprises

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Criteria for CAFO Classification

The Clean Water Act, administered federally by the Environmental Protection Agency, distinguishes between non-point and point-sources of pollution. Non-point source pollution comprises pollutants spread over a large area, such as over-application of fertilizer or potentially harmful components of livestock manure on pasture. Point-sources of pollution are those that discharge pollutants at a discrete point, such as a pipe (e.g., wastewater treatment plant). When animals are confined and concentrated, the facility may be treated as a point-source of pollution under the Concentrated Animal Feeding Operation (CAFO) rules and may be subject to specific permitting requirements.

The CAFO program was intended for confinement facilities that concentrate large quantities of manure, such as feedlots and dairies. However, in defining what a CAFO is, the rule describes facilities that sometimes include cow-calf operations.

Most cow-calf production sites do not “fit” the program, and it is in the producer’s best interest to take measures to avoid designation. CAFO designation necessitates a permitting process that takes time, costs money to implement, and includes annual fees and testing requirements.

Grass-based beef producers prefer to distribute and utilize manure rather than export it to surface water. Larger producers with their own feedlots or backgrounding lots with a large one-time capacity and that are adjacent to surface water may need to apply for a National Pollutant Discharge Elimination System permit.

A confinement area¹ may be at risk of CAFO designation if, on an individual confinement facility, these conditions exist:

1. No vegetation (crops, forage growth, or post-harvest residues) during the growing season;
2. Animals are present for a total of at least 45 days (not necessarily consecutive) during any 12-month period; and
3. Pollutants are discharged to surface water.

The important questions are: what does “significant” mean, who decides, and based on what criteria? Specific regulatory details vary by state and can be investigated further by contacting your state’s permitting authority.

State Permitting Authorities

Arizona Dept. of Environmental Quality
(602) 771-4469

California State Water Resources Control Board
(916) 341-5587

Colorado Dept. of Public Health & Environment
(303) 692-3520

Hawaii Dept. of Health, Environmental Mgmt. Div.
(808) 586-4352

Idaho State Department of Agriculture
(208) 332-8540

¹The regulation looks at an individual confinement site rather than the entire cattle operation; thus, if a producer has 250 cows confined in one location and 80 first-calf heifers in another, these are considered two separate animal feeding operations of less than 300 head rather than one of 330.



Classic worst-case scenario with high concentration of manure, no vegetation, and significant discharge to a stream.

NRCS photo



High risk, but a gray area because of seasonal vegetation.

Photo by Mark Crowley



Clearly a pasture system—not a CAFO.

Photo by Tip Hudson

State Permitting Authorities (cont'd)

Montana Dept. of Environmental Quality
(406) 444-1454
Nevada Division of Environmental Protection
(775) 687-9423
[New Mexico] U.S. EPA Region 6
(214) 665-7504
Oregon Dept. of Agriculture
(503) 986-4792
Utah Dept. of Environmental Quality
(801) 538-9251
Washington Dept. of Ecology
(360) 407-7543
Wyoming Dept. of Environmental Quality
(307) 777-7781

Confinement facilities with over 300 head of beef cows are automatically a CAFO if animals have direct access to surface water or manure-contaminated water is carried from the site by a ditch or pipe. These facilities are responsible to seek out a permit from their state agency that administers the CAFO program. Confinement facilities of fewer than 300 head cannot be a CAFO unless the permitting agency has made an “on-site inspection and determined that [the facility] is a significant contributor of pollutants...and should be regulated under the CAFO program.”²

The key to management of confinement areas near water is to avoid runoff or ensure that runoff does not reach surface water. The most obvious and most heavily weighted risk factor is the degree of contact between the cattle and surface water, such as a lot straddling a stream.

The potential for CAFO designation does not mean producers should not have confinement areas. A good practice for producers is to protect heavy use areas that do not have a negative impact on surface water, such as designating forage production areas. Producers may need to feed cattle in some places and at certain times.

Risk Management

Solutions to address specific problems will vary by site. Producers should contact their local Extension office or Conservation District to discuss what “fixes” will be most effective and cost-efficient. This publication provides a list of common risk factors (not necessarily in order of importance) that may contribute to degraded water quality, specifically influencing the frequency or likelihood of a discharge of manure.

²Cited from 40 CFR 122.23, found in the EPA Producers Compliance Guide, accessed at <http://cfpub.epa.gov/npdes/afo/compliance.cfm>.



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Risks

- Confinement lot straddles a stream
- Animals drink directly from a surface water• Precipitation patterns cause manure to move off-site into surface water
- Confinement lot is in a floodplain
- Little distance separates a surface water and the nearest edge of the confinement lot
- Retaining ponds have an outlet to a stream or river

Beneficial Factors

- Animals water from an off-stream tank or other storage structure
- Confinement area includes a hardened water access to surface water that encourages animals to drink and exit the water (only acceptable for lots with less than 300 head!)
- Animals are fed on uphill side of lot
- Lower end of lot is bermed to divert runoff away from stream or other surface water
- Clean water is diverted from passing across confinement area
- Runoff from the lot passes through an area of dense grass
- Manure is regularly removed and land-applied at agronomic rates

It is important to remember that although an operation may not have confinement facilities that are CAFOs, the same risk factors will apply to non-point source water quality concerns.

Additional Resources

EPA producer compliance guide
<http://cfpub.epa.gov/npdes/afo/compliance.cfm>
NPDES permit process
<http://cfpub.epa.gov/npdes/index.cfm>
NRCS practice standards
<http://www.nrcs.usda.gov/technical/efotg/>

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