So You're an AFO…You Still Have Regulatory Requirements

Jessica G. Davis, Extension Soil Specialist

Animal feeding operations are not required to apply for an NPDES permit or follow a Nutrient Management Plan. However, they are required to utilize Best Management Practices that reduce impacts on surface and ground water. You are not required to use all of the BMPs in the following list, but you must choose those that are appropriate for your facility and its risk to waters of the state, and considering the physical conditions and constraints of the operation.

Choose from the following BMPs as listed below from Regulation 81, the Animal Feeding Operations Control Regulation. If a complaint is filed with the state about your AFO, the state will inspect your facility for compliance with BMPs.

Divert Uncontaminated Runoff from Animal Confinement and Manure/Wastewater Storage Areas

- Construct ditches, terraces, or other waterways
- Install of gutters, downspouts and buried conduits to divert roof drainage
- Construct roofed areas over animal confinement areas

Practices to Decrease Open Lot Surface Area

- Reduce lot size
- Improve lot surfacing to support increased animal density
- Provide roofed area to the maximum extent practicable
- Collect manure frequently
- Eliminate animal confinement areas and manure and wastewater control facilities in areas that slope in directions such that runoff can not be collected

Decrease Water Volume

- Repair or adjust waterers and water systems to minimize water wastage
- Use lowest practical amounts of water for manure and wastewater flushing
- Recycle water used to flush manure from paved surfaces or housed confinement areas

Colorado State University Cooperative Extension

Putting Knowledge to Work

Decrease Wastewater Discharges to Watercourses

- Collect and allow wastewater to evaporate
- Collect and evenly apply wastewater to land application sites at agronomic rates
- Do not deposit wastewater on locations where storm water runoff or normally expected high stream flow will carry the waste into waters of the state
- Do not locate wastewater retention structures within a mapped 100 year flood plain as designated by the Colorado Water Conservation Board unless proper flood proofing structures are designed and constructed

Minimize Manure Transport to Watercourses

- Locate manure stockpiles away from watercourses and above the 100 year flood plain, unless protected by adequate flood proofing structures
- Provide adequate manure storage capacity based upon manure and wastewater production
- Remove settleable solids with solids-settling basins, terraces, diversions, or other solid removal methods
    - Solid settling facilities are considered adequate when the velocity of flow is reduced to <0.5 ft/sec for at least 5 minutes.
    - Capacity of solid settling facilities should be sufficient to store solids between disposal periods.
- Apply manure to land application sites at an agronomic rate
- Avoid manure application to saturated soils and lands subject to excessive erosion
- Use edge-of-field, grassed strips, filter fences, or straw bales to separate eroded soil and manure particles from the field runoff

Protect Groundwater

- Locate manure and wastewater facilities hydrologically downgradient from all water supply wells
- Locate manure and wastewater facilities a minimum horizontal distance of 150 feet from all water supply wells
- Utilize a buffer area around water wells where no manure or wastewater is applied which is sufficient to prevent the possibility of waste transport to groundwater via the well or well casing
- If the Water Quality Division determines that your AFO could adversely affect groundwater quality, your AFO will be required to install a liner in all impoundments with seepage rate < 1×10^{-6} cm/sec
    - The liner should be installed according to a work plan approved by the Division.