

# What Does It Mean to Be A CAFO In Wisconsin?

The 1972 Clean Water Act defined Concentrated Animal Feeding Operations (CAFO) as a “point source” for possible pollutant discharges.

1. A CAFO is more than 1000 “Animal Units”. An animal unit is equal to 1000 pounds of live animal weight:
  - 715 milking cows
  - 1000 beef cattle
  - 2500 feeder hogs
  - 55,500 turkeys
  - 200,000 chickens
2. The Clean Water Act protects “waters of the United States” by requiring permits from the Environmental Protection Agency (EPA) for point sources. In Wisconsin, this permitting program (Wisconsin Pollutant Discharge Elimination System) is administered by the Department of Natural Resources (DNR) with EPA oversight.
3. WPDES CAFO permits only address manure and process wastewater management with regards to federal water quality protection. It **DOES NOT** apply to social concerns such as odor, traffic, and facility size. It **DOES NOT** satisfy other required regulations and permits from the DNR (storm water construction, high capacity wells) or local government authorities (county manure storage ordinances, town/county building permits, town/county setbacks).

For new CAFO applications, it takes approximately 1 to 2 years from the initial application submission to permit issuance. For existing CAFO's, it's normally 6 to 12 months. The DNR uses a combination of state statutes that only apply to CAFO's (NR243 – Animal Feeding Operations), statutes that apply to all farms (NR151 – Runoff Management), and technical standards (NRCS 313 – Waste Storage Facility, NRCS 590 – Nutrient Management) to regulate manure and process wastewater on CAFO farms.

## CAFO permit requirements:

1. “No discharge” of pollutants (manure, milking center waste, feed storage leachate) from animal production areas.
  - Minimum of 180 days liquid manure storage.
  - Collect leachate from feed storage structures.
  - Collect the initial 4.5 to 5 inches of precipitation (24-hour, 25-year storm for county) that contacts manure, parlor waste or feed.
2. Document that manure and process wastewater structures (waste storage, transfer systems, feed storage) at animal production site(s) meet required construction standards.
  - New structures have design plans submitted to DNR Engineers for approval
  - Existing structures are evaluated by a private engineer. A report summarizing findings is submitted to DNR Engineers for review.

3. Nutrient Management Planning
  - 5-year plan for projected nutrient applications during permit term.
  - Annual updates to document actual applications during permit term.
4. Monitoring and Reporting
  - Emergency Response Plan
  - Monitoring and Inspection Plan
  - Observations from inspections
  - Summary of mortality management

### **The intersection of CAFO permit requirements and farm economics.**

“By failing to prepare, you are preparing to fail.” – Benjamin Franklin.

Economics continually push livestock farms to be more efficient to stay in business. The most common ways Wisconsin farms increase efficiency is to:

1. Change activities to be more profitable (specialization, produce different product, off-farm income).
2. Adopt new technology (rotary parlors, robotic milkers).
3. Expand to capture “economies of scale”.

### **Water quality does not drive these decisions, yet these decisions significantly impact water quality!**

The DNR anticipates the need for additional CAFO permits in the future as existing operations expand to stay in business or new operations are constructed. Currently, the department issues 10 to 15 new CAFO permits statewide annually.

### **Considerations for unpermitted farms:**

1. Compare CAFO permit compliance costs to costs of not being a CAFO.
  - New permittees usually require investment in water quality practices that do not increase efficiency but are a requirement of doing business to meet increased regulations.
    - ✓ additional manure storage.
    - ✓ collecting feed pad leachate.
    - ✓ paying consultants to develop/update nutrient management plans.
    - ✓ paying consultants to develop engineering evaluation reports for existing structures.
  - For farms near CAFO size (600 to 700 cows) who wish to avoid becoming a CAFO:
    - ✓ What are current costs of not being a CAFO (decentralized operation inefficiencies, transportation costs)?
    - ✓ What are future opportunity costs of not fully capturing possible “economies of scale”?
    - ✓ Does the cost of replacing/repairing outdated technology/structures at current size make sense financially when compared to improvements that allow for future flexibility?

- For smaller farms (<600 cows) who may be considering future expansion:
  - ✓ Long term plan should be that the farm will eventually become a CAFO.
  - ✓ Building new structures to CAFO standards is usually cheaper over time than trying to retrofit older, substandard structures.
  - ✓ Consider building new structures at more desirable sites than just adding on to existing structures. This can increase operational efficiencies, provide flexibility for future growth, and reduce costs associated with addressing existing environmental restrictions. Many times, older structures are better repurposed for other needs.

### **Considerations for permitted farms:**

1. Changes in farm management practices may result in additional costs to meet new regulations:
  - Sand bedding recycling piles.
  - Irrigation of manure/process wastewater.
  - Discharge of treated process wastewater to surface water.
  - Manure solid separation.
  - Purchasing manure application equipment, and/or installing manure transfer pipelines.
  
2. Changes in DNR policy may result in the need to invest in structures that expand water quality protections:
  - Specific policy changes (feed pad collection systems, calf hutch areas, headland stacking).
  - General policy changes (additional nitrogen restrictions for field applications of manure = building additional manure storage or upgrading application equipment).

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Todd grew up on a small dairy farm near Bloomer in western Wisconsin and graduated from UW-River Falls in 1989. Before starting at the DNR in 2018, he worked at the Chippewa County Land Conservation Department, Chippewa County UW-Extension office, UW-Discovery Farms, and operated a crop consulting business. Todd spends most of his free time with his wife, Ellen, caring for the gardens at their home in Chippewa Falls.

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Jeff grew up in Eau Claire Wisconsin but spent summers on his grandparent's farm in Phillips Wisconsin. Jeff graduated from UW-Stout with a Plant Ecology degree in 2014. After college he worked for NRCS Dunn County for one-year, then began with DNR in 2015. From 2015-2017 he was a Water Resources Specialist focusing on river and stream quality in northern Wisconsin. In 2017, he began his role as a CAFO Specialist working in the Sheboygan Wisconsin area. In 2018, he transferred to Baldwin and now works with farms in far Western Wisconsin. Jeff enjoys spending time with friends, family, fly fishing, gardening, kayaking, and biking.