

Water WoRDs

Updates from the Water Resources Division

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What's a "CAFO?"

One of the things most new employees in the Water Resources Division (WRD) receive on their first day is a list of acronyms. We love acronyms so much that we even tucked one into the name of this newsletter, Water WoRDs.

"CAFO" (cay-foe) is one of the many acronyms used within WRD programs, with the 'C' standing for concentrated (animal feeding operation). That 'C' is often mistakenly identified as the word 'confined,' but it may just as well stand for 'controversy' as the WRD's regulation of these large livestock operations has been debated for many years, among a diverse set of stakeholders.

The WRD administers Michigan's [National Pollutant Discharge Elimination System \(NPDES\) permitting program for large CAFOs in our state](#). CAFOs are farming operations that house



large numbers of livestock, generally livestock of one species, an example being a large dairy CAFO which would house 700 or more mature dairy cows. For swine, the large CAFO threshold is 2,500 swine each weighing 55 pounds or more or, for swine less than 55 pounds, 10,000 head. The animals at a CAFO produce tremendous amounts of manure and other wastes that are generally contained in open-air lined pits or other waste storage structures prior to application onto cropland. Concerns over management of wastes at CAFOs, and the risk to surface waters, led Michigan to issue its first NPDES permit regulating large CAFOs, effective on January 1, 2003. When the federal government updated its CAFO regulations later that year, Michigan followed by promulgating administrative rules for NPDES permitting of CAFOs- consistent with state law requirements (in April 2005). Lawsuits were filed by stakeholders challenging both the federal and state rule packages (hence, the reference to controversy), with a mix of outcomes.

Fast-forward to this spring of 2013, and the WRD is pleased to report that controversy has evolved into cooperation among many individuals and organizations that were at first skeptical of the permitting process. WRD staff work hard to communicate with producers and assure good environmental practices and compliance with permit requirements. We acknowledge that problems do arise from time-to-time; however, as we are issuing the fourth generation of CAFO permits in Michigan, what we see in the field, is progress.

Late in 2012, most CAFO permittees submitted demonstrations, under seal of a licensed professional engineer, that waste storage structures meet or exceed the design standard required by the NPDES permit (adopted from the Natural Resource Conservation Service). Through these demonstrations, CAFOs were able to identify deficiencies, such as inadequate setbacks from wells, and work with the WRD on a path toward improvements. It has taken years to achieve this effort, but the WRD is pleased that most permitted CAFOs met the requirements and are taking action to ensure the integrity of their storage structures.

On April 1, 2013, the WRD received another round of Annual Reports from permitted CAFOs. However, this year the annual reports reflected a new reporting system that was developed in order to provide information that should prove advantageous to farms and the environment. The new reporting system looks at fertilization of manure applied fields as a whole (manure, fertilizer, and crop nutrient credits), and compares them to cropping goals, permit requirements, and fertilizer recommendations. Assuring appropriate fertilization practices can maximize yields, minimize costs to the farm, and protect water quality. WRD field staff have already received positive feedback from farmers and their consultants regarding changes that will result in improving the "bottom line" of farming operations. Those conversations brighten our days in the WRD.

Inspector Megan McMahon had one of those good days in the fall while visiting one of the permitted CAFOs she works with. Rich Ro Farms, located in Clinton County has always been a productive dairy farm. Prior to operating under the WRD's NPDES permit, manure applications were either not incorporated or were tilled in as time allowed. Permitted in 2003, owner Glen Feldpausch began incorporating manure within 24 hours (a permit requirement intended to protect water quality) and noticed an economic benefit. "Incorporating the manure saved us money from nitrogen loss. It's something I wish we'd done 10 or 15 years ago." Rich Ro and the Feldpausch family continue to demonstrate good farming practices for economic benefit while protecting the environment.



A recently constructed concrete lined manure storage structure at a dairy in Allegan County. This is one of two new structures the farm constructed to comply with the permit and make sure the structures are environmentally safe.

What do you do in the WRD?

Meet Megan McMahon

Megan McMahon has been with the various surface water programs in the Department for 27 years. Of all the roles she's been assigned, her current duties in the Lansing District Office as the CAFO contact is her favorite. She likes being out in the countryside and working one-on-one with the landowners. "Education works both ways. I learn something about farming or agri-business and- hopefully- they learn something about environmental impacts and priorities." Megan also has her own small hobby farm with horses, chickens and a pet pig.



Megan McMahon
