

## 2009 NRCS CNMP Training CNMP Role in CAFO Permit



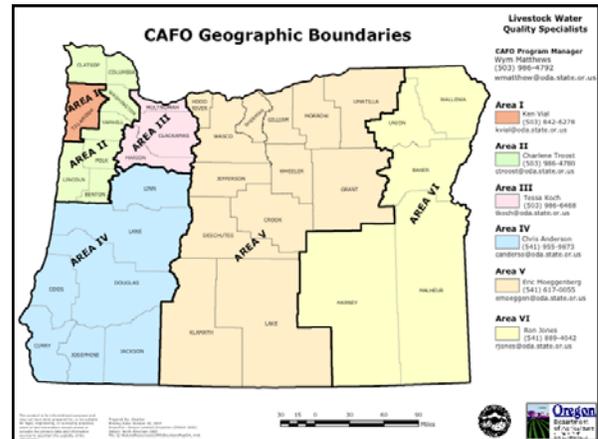
## CAFOs in Oregon

- **Confined** Animal Feeding Operations (CAFOs) as defined in OAR 603-074-0010(3)
  - Oregon Rule defines CAFOs that are much smaller facilities than EPA defines.
  - An animal feeding operation that is subject to regulation as a **concentrated** animal feeding operation pursuant to 40 CFR 122.23.
  - All CAFOs in Oregon registered to a National Pollutant Discharge Elimination System (NPDES) Permit.

## Compliance Program



- 100% of Staff Time.
- 8.5 FTE.
- Assist Permittees with Compliance.
- Many Tools.
- Performance Based.
- Permit More Than EPA Requires.



## 2008 Statistics

- 581 Registrations
  - 0 "NEW" Large Fed CAFO.
  - At Least 1 Routine Inspection/Year.
  - \$5,500 Civil Penalties (5).
  - 115 Large Federal CAFOs.
  - 238 Medium Federal CAFOs.
  - 228 State CAFOs.
  - 4 Individual Permits.



## Challenges & Opportunities

- 11-2008 EPA publishes new CAFO Rule.
- Oregon Permit renewal.
- Renewal Permit Notice Req.
- Individual Permits.
- **AWMPs:**  
93% of AWMPs in.



## Challenges & Opportunities

- Complete AWMPs for all registrants.
- Implement AWMPs for all registrants, by 2-27-09
- 2 formats for AWMPs
  - Linear
  - Narrative



## Additional details – Nutrient Management Plans

- Is the entire NMP required to be publicly noticed?
  - Yes, the permitting authority is required to make the entire NMP and the draft terms of the NMP available to public.
- Is the entire NMP incorporated into the permit?
  - The permitting authority must incorporate the terms of the NMP into the permit, which include the information, protocols, best management practices (BMPs) and other conditions in the NMP necessary to meet the NMP requirements of the 2003 rule.
- What are the two approaches in the final rule for expressing rates of application?
  - The "linear approach" expresses field-specific maximum rates of application in terms of the amount of nitrogen and phosphorus from manure, litter, and process wastewater allowed to be applied.
  - The "narrative rate approach" expresses the field-specific rate of application as a narrative rate prescribing how to calculate the amount of manure, litter, and process wastewater allowed to be applied.

## Additional details – Rates of Application

### NMP-related requirements, cont.

- Do either of the two approaches in the final rule for identifying terms of the NMP for expressing rates of application address the concern regarding flexibility of the NMP?
  - Yes. The narrative rate approach allows CAFO operators to change their crop rotation and form and source of manure, litter, and process wastewater, as well as the timing and method of application. The narrative rate approach allows the use of "real time" data for determining rates of application and provides the most flexible approach for farmers.
- What are substantial changes to the NMP and that require a permit modification?
  - The final rule includes a list of changes to the NMP that constitute a substantial change that would trigger permit modification. These include addition of new land application areas not previously included in the CAFO's NMP and addition of any crop not included in the terms of the CAFO's NMP and corresponding field-specific rates of application.

## CAFOs in Oregon

- All currently registered to an NPDES Permit.
- Oregon CAFO NPDES Permit requires AWMP.
- AWMP part of Permit Notice
- AWMP substantial modification = Notice
- AWMP = ELG
- Must work for producers
- Must be dynamic

## CAFOs in Oregon

- AWMP = CAFO Permit condition(s) that are regulated by ODA.
- ODA / EPA are reviewing AWMP's at inspections.
- ODA is issuing NON's for failing to follow AWMP.
- Permit registrants don't know what's in their AWMP?

## Oregon Department of Agriculture CAFO Permit Animal Waste Management Plan

MRE = Minimum Required Elements  
AWMP Format



**1. d) Manure System**



**1. d) (i) Collection**

How is manure, litter and process waste removed from housing, confinement lots? How is clean water diverted from storage?



**1. d) (ii) Storage**

Types and size of manure, litter and process waste storage tanks, ponds



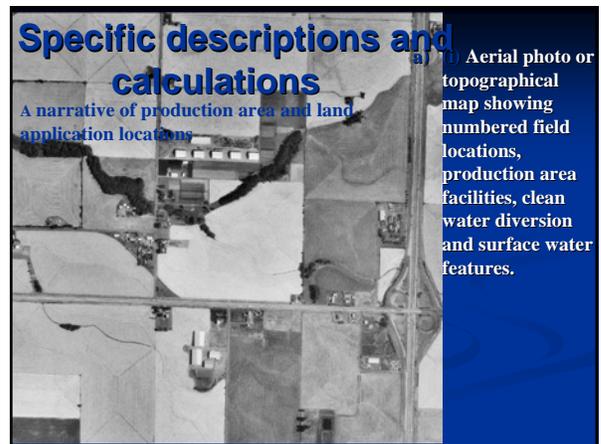
**1.d) (iii) Transfer**



**1.d) (iv) Use**

How is manure, litter and process waste water used on crops? If export is utilized, describe that process.

How is manure, litter and process waste treated (composted, separated, anaerobic digestion or storage, aeration)?



**Specific descriptions and calculations**

A narrative of production area and land application locations

Aerial photo or topographical map showing numbered field locations, production area facilities, clean water diversion and surface water features.

## 2. b) (i) Manure, litter and process waste volumes



## 2. c) Contaminated Storm Water

- 2. c) (i) Direct rainfall into storage
- 2. c) (ii) Slab or lot runoff collected
- 2. c) (iii) Overflow from gutters or other diversions.



## 2. d) Nutrient content of manure, litter and process waste water

2. d) (i) Content and volume of nutrients in manure, litter and process waste generated - can come from NRCS Animal Waste Field handbook (Table 6.6 Oregon Amendment), land grant university publications, or analyses of manure, litter and process waste. Actual test values are required of large CAFOs

## 2. e) Farm nutrient balance

2. e) (i) Show amount of nutrients (N, P, K) generated, lost in storage, lost during application, used by crops, and/or exported off the farm on an annual basis.

## 2. e) (ii) (iii)

2. e) (ii) Nutrient application must balance to most limiting nutrient as determined by NRCS Agronomy Technical Note #26 and the NRCS Phosphorus Index.

2. e) (iii) Include all acres required to balance nutrients owned or leased by the operator.

## 2. f) Application schedule and limitations



2. f) (i) Show scheduled applications of solids and liquids. Include date, amount and method of application to identified fields. Describe calibration of equipment used to apply manure, litter and process waste water.

## 2. f) (ii)

2. f) (ii) Describe limitations to manure, litter and process waste applications. Indicate buffer areas and management to avoid frozen or saturated soils. Justify buffer width and management.



## 2. f) (iii) (iv)

2. f) (iii) Using agronomic rates, application limitations, and scheduled applications, calculate the minimum storage required for liquids and solids.

2. f) (iv) How is irrigation water managed relative to manure, litter and process waste water application? Indicate general timing and application rates of irrigation water. Irrigation water management must not allow leaching of soluble nutrients or runoff.

## 2 g) Animal mortality management

2. g) (i) Describe how the farm handles mortality

## 3. Record keeping and reporting requirements

3. a) Testing - Monitoring  
(i) Include the protocol for testing manure, litter and process waste



## 3. b) Record keeping - Include the following

3. b) (i) Date and amount of manure, litter and process waste applied by field. Calculate N and P applied.

## 3. b) (ii) 3. c) (i) (ii) (iii)

3. b) (ii) Manure, litter and process waste volume exported.

3. c) (i) Any discharge within 24 hours.

3. c) (ii) Amount of manure, litter and process waste applied annually.

3. C) (iii) amount of manure, litter and process waste exported annually.

## 4. Additional requirements for large CAFOs

### 4. a) Inspections

4. a) (i) Storm diversions, runoff diversions, waste transport, storage structures, storage structure volume weekly.

4. a) (ii) Water lines daily.

4. a) (iii) Application equipment leaks periodically.



## 4. b) (ii) (iii) (iv) (v)

4. b) (ii) Results of weekly inspections

4. b) (iii) Results of periodic inspections

4. b) (iv) Corrective actions taken, explain those not corrected.

4. b) (v) Expected crop yields if not in the plan.

## CAFOs and AWMPs

- Registered CAFO's are regulated by ODA on the specifics contained in the AWMP.
- CAFO Permit references NRCS 590 std.
- AWMP must meet applicable MRE's.
- AWMP must be approved by ODA.
- ODA has regulatory oversight over AWMP

## CAFOs and AWMPs

- EDUCATION and OUTREACH!!!!!!>>>>.
- Records can confirm AWMP is real and working, not just theory.
- Creative nutrient solutions.
- If agronomic application concept results in continuing pollution (GWMA, Shellfish growing areas). It will be questioned.



It's just Gas!  
(The next frontier)



Oregon Department of Agriculture  
Natural Resources Division  
(503) 986-4700  
Website: <http://oda.state.or.us/nrd/cafo/index.html>