

Water Quality Permitting for CAFOs in Oregon

Board of Agriculture
Meeting

Feb. 23, 2023

CAFO: Defined

CAFO is defined in OAR 603-074-0010(3)

The concentrated confined feeding or holding of animals or poultry

- In buildings or in pens where the surface has been prepared with concrete, rock or fibrous material to support animals in wet weather; or
- That have wastewater treatment works; or
- That discharge any wastes into waters of the state; or
- An animal feeding operation that is subject to regulation as a concentrated animal feeding operation pursuant to 40 CFR 122.23



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CAFO Program History

- Oregon Department of Agriculture (ODA) and Oregon Department of Environmental Quality (DEQ) have a long history of cooperating to oversee the CAFO program.
- ODA operates the program under a Memorandum of Understanding with DEQ.
- The US Environmental Protection Agency also has oversight over the state's program.
- The program currently has 510 permitted facilities throughout the state.

ODA & DEQ – MOU Roles and Responsibilities

ODA	DEQ
Approves Permit coverage Reviews and approve plans and specifications	Assists in review of plans
Determines Compliance	Provides technical/subject matter expertise
Maintains permitting and compliance database	Provides WQ program training and guidance as needed
ODA and DEQ work together on developing water quality permits	

Water Quality Permits required for a CAFO

National Pollutant Discharge Elimination System (NPDES)

- The permit regulates the discharge to surface waters or to ground waters
- Limits the amount of manure, wastewater and nutrients from all sources that can be applied to fields as fertilizer
- The permit requires monitoring of any unauthorized discharge
- NPDES Permit effective for five years after the date of permit issuance

Water Pollution Control Facility (WPCF) ORS 468B

- The permit regulates discharge to ground waters and strictly prohibits any discharge to surface water
- Limits the amount of manure, wastewater and nutrients from all sources that can be applied to fields as fertilizer
- The permit requires monitoring of any unauthorized discharge
- WPCF Permit effective for 10 years after the date of permit issuance



DEQ-Issued Water Quality Permits may be required for a CAFO

- A **construction stormwater general permit** (1200-C) is required from DEQ for construction related land disturbance of one acre or more
 - only for stormwater discharges during construction activity
 - does not authorize discharge of wastewaters associated with operation of a CAFO
- The 1200-C NPDES construction stormwater general permit is a 5-year permit (effective 12/2020 thru 12/2025)
- Applicants seeking coverage must submit an application, a complete erosion and sediment control plan, a land use compatibility statement, and applicable permitting fees.
- 1200-C permit applications involving five acres or more require a 14-calendar day public notice period.
- If approved, only valid for stormwater discharges during construction activity - once construction is complete, the permit coverage is terminated and future discharges from the site will be regulated by ODA.

Federal CAFO Permitting Requirements

- ODA / DEQ CAFO Program exceeds Federal CWA
- Federal CAFO is a Concentrated Animal Feeding Operation. 40CFR 122.23
- Oregon requires CAFO Permits for all Concentrated AFOs and further requires CAFO Permits for Confined Animal Feeding Operations defined in Statute and Rule. ORS 468.B.215 and OAR 603-074
- Technical Standards are the same as required in Federal CAFO rule



Water Quality Permit Application Process

CAFO Water Quality Permit Application materials

- ODA CAFO Permit application form

- LUCS

- Nutrient Management Plan (NMP) must include Minimum Required Elements listed in CAFO Permit S3.C

- Application fee

- Structural Design elements must meet DEQ Rules OAR 340-051 and portions of OAR 340-052 that relate to CAFO WWCF



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Water Quality Permit Application Process

- -ODA receives / reviews the application and works with applicant to ensure it is complete
 - Land Use Compatibility Statement (LUCS)
 - Nutrient management plan
 - Must submit 180 days prior to beginning construction
- ODA and DEQ work together to determine what CAFO permit is appropriate (this may require consultation with the applicant).
- ODA coordinates permit/NMP review and feedback with DEQ, OWRD, and OHA to review permit and NMP
 - Water Supply Plan (OWRD)
 - Stormwater Construction Permit (DEQ)
- ODA release permit application materials for **public comment**
 - Notice to the public issued. Self sign up for notifications.
 - 35-day public comment period begins
 - Public hearing required for all new, NPDES registrations and all new, Large WPCF registrations
 - Extensive outreach to tribe and EJ communities
- ODA reviews all **public comments, responds to comments** and may add conditions to permit
- ODA-DEQ decision point:
 - Issue permit as proposed
 - Issue a permit with conditions or require changes to NMP
 - Deny permit issuance



Communication and Outreach

Communication Plan

- Local outreach
- Dedicated position to outreach to Tribes
- Stakeholder outreach
- Outreach to elected officials
- Notifications: email, text, web, social media, press



CAFO Permit Compliance

ODA ensures that the Permit requirements are being followed through:

- Routine inspections
- Complaint inspections
- Enforcement actions
- Monitoring and reporting requirements



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CAFO Inspection Activities

- ODA staff conducts routine CAFO inspections on a 10-month schedule
- Larger or complex CAFOs facilities may receive more frequent inspections
- ODA staff respond to complaints, permittee requests for technical and planning assistance and follow up inspections as needed to assure compliance
- Two-Step construction completion, functionality and occupation inspections for all new, large CAFOs or existing CAFOs expanding to become large
- Compliance rate 2022 = 97% of inspections in compliance



CAFO Permits

Permit Type	Facilities Eligible for Coverage	Facilities Registered	Expiration Date
NPDES General Permit	Potential for surface water discharge Can elect coverage	362	Feb. 28, 2021
WPCF General Permit	Potential for groundwater discharge only	143	Sept. 30, 2025
Individual NPDES or WPCF	Facilities in GWMA that land apply, use new technology, or have a significant compliance history	5	Varies by individual permit

CAFO Dairy Permit Numbers

Permit Type	# Facilities Registered	Small	Medium	Tier 1 Large	Tier 2 Large
Mature Dairy Cows (General Permit)		<200	200-699	700-2,499	2,500 or more
Mature Dairy Cows Individual Permit)		N/A	N/A	<10,000	10,000 or more
NPDES General Permit	193	55	96	30	12
WPCF General Permit	45	27	17	1	0
Individual NPDES	4			3	1
Individual WPCF	1			1	



CAFO Poultry Permit Numbers

Permit Type	# Facilities Registered	Small	Medium	Tier 1 Large	Tier 2 Large
Broiler Chickens (General Permit)		<37,500	37,500 – 124,999	125,0- 349,999	350,000 or more
Broiler Chickens Individual Permit)				<499,999	500,000 or more
NPDES General Permit	12	0	3	8	1
WPCF General Permit	12	3	3	3	3
Individual NPDES	0			0	0
Individual WPCF	0			0	0

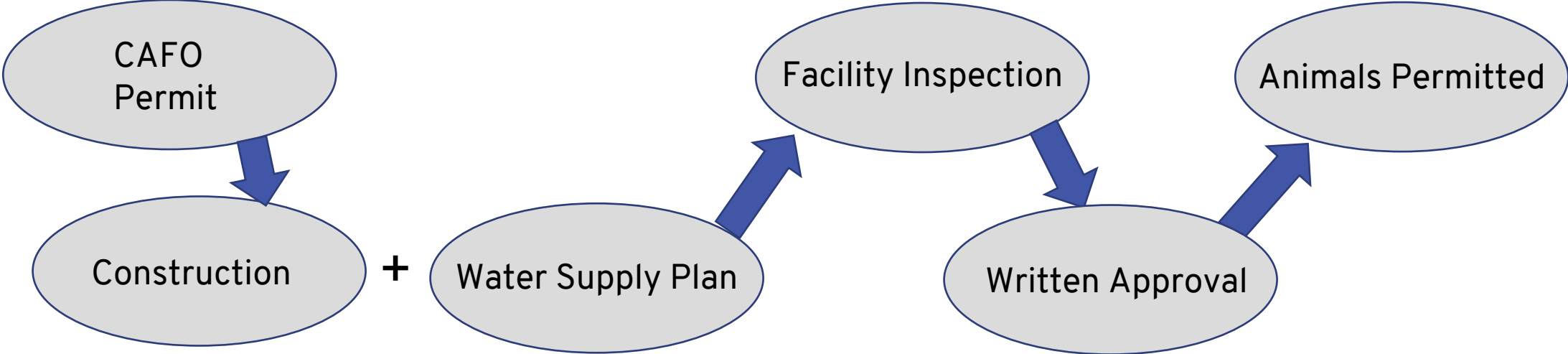


CAFO Permit Inspections

ODA CAFO Staff review the results the following activities to ensure Permit compliance

- Monitoring of Static Ground Water Levels
- Soil Moisture Monitoring and Hydraulic loading
- Soil testing results review. The operator is required to collect annual soil samples from fields where manure, litter or process wastewater is applied
- Inspections of Production area and monitoring to prevent discharge
- Surveillance Sampling of drinking water wells at the CAFO for nitrate
- Recordkeeping. The permit requires comprehensive record keeping and reporting requirements to ensure permit conditions are met
- 24 Hour Reporting For any discharge or other Permit non-compliance

CAFO: Two Step Permitting Construction



Dairy CAFO Characteristics

- Manure and mortality storage can be affected by weather, uncovered lagoons and open lots
- All dairies have liquid manure systems
- Small percentage of manure is solid
- Large amounts of process water required
- All dairies land apply. 65% of dairies can export a portion of manure
- Dairy drinking water consumption is higher than poultry / animal unit
Dairy Cows = 21.4 gallons/day/AU
Broiler Chickens = 17.2 gallons/day/AU
- CAFO compliance rate. Facilities more affected by weather
 - Dairy -Lower compliance rate than poultry and beef facilities

Poultry CAFO Characteristics

- Litter, manure and mortalities all inside a structure
- No liquid manure systems
- All litter/manure is dry
- Small amounts of process water required
- 86.5% of Oregon facilities export 100% of litter / manure and mortality compost
- Ten-year average amount to fertilizer manufacturing is 10,069 tons/year
- Poultry drinking water consumption is lower than dairy cows / animal unit
Broiler Chickens = 17.2 gallons/day/AU Dairy Cows = 21.4 gallons/day/AU
- High CAFO compliance rate
 - Poultry –Highest compliance rate 97.0%
 - Beef -Lower compliance rate than poultry facilities 95.1%
 - Dairy -Lower compliance rate than poultry and beef facilities 94.4%



Neighboring States CAFO Permitting Requirements

- **Washington**
 - Has a CAFO General NPDES Permit
 - 26 Registrants, One (1) poultry facility
 - Does not have a state CAFO permit
 - Egg wash / processing covered under a different WQ Permit
- **Idaho**
 - Has a CAFO General NPDES Permit
 - 0 (zero) registrants
 - Does not have a state CAFO Permit
- **California**
 - Has a CAFO General NPDES Permit
 - 141 Registrants
 - Has a state CAFO Permit (CAF Permit)
 - May require air quality Permit depending on location

