INLAND EARTH SCIENCES

MEMORANDUM

To:
CAFO Permit Manager, Water Quality Program
Washington State Department of Ecology

Copies:

From:
Kevin Freeman

Date:
April 10, 2026

Subject:
Early Feedback for Upcoming Reissue of the CAFO General Permit

Thank you for accepting feedback regarding the current (2023) version of the Washington State Department of Ecology (Ecology) Water Quality Program Concentrated Animal Feeding Operation (CAFO) General Permit (the "Permit"). The following comments reference the National Pollutant Discharge Elimination System (NPDES) And State Waste Discharge (SWD) version of the Permit (the "Combined Permit").

S1.A. Facilities Required to Seek Coverage under This General Permit

A comprehensive discussion of what constitutes a groundwater discharge in Washington State, both generally and specifically for the Permit, would be beneficial towards informing CAFO operators if a facility requires permit coverage. This comment is particularly applicable to land application fields.

S4.B Production Area Run-off Controls

Vegetated treatment areas (VTA) are referenced as a possible control practice, however the definition of VTA in the permit references no guidance, standards, or practices for their design, construction, operation, or maintenance. Chapter 11 (*Livestock Management: Animal Confinement, Manure Handling & Storage*) of Ecology's *Voluntary Clean Water Guidance for Agriculture* (Ecology Publication 20-10-008e, February 2026) references the Natural Resources Conservation Service (NRCS) Washington State (WA) Conservation Practice Standard (CPS), 635 - *Vegetated Treatment Area* when planning and designing a vegetated treatment area. The Permit should reference accepted guidance, standards, or practices for VTAs.

S4.C Storage of Manure, Litter, Process Wastewater, Other Organic By-Product, and Feed

1. Liquid Waste Storage Structures

This section states that "*Liquid waste storage structures must be designed, constructed, and maintained to have a maximum water specific discharge of* $1 \times 10^{-6} cm^3/cm^2/s$ *without consideration for manure sealing*…" The use of a specific discharge standard for liquid waste storage structures can lead to complexities in the design and operation of these structures. Ecology may wish to consider use of a permeability standard as opposed to a specific discharge standard.

Additionally, the permit references no guidance, standards, or practices for the design, construction, operation, or maintenance of liquid waste storage structures. Ecology may wish to consider inclusion of NRCS WA CPS 313 – *Waste Storage Facility* and the associated practices standards CPS 520 – *Pond Sealing or Lining, Compacted Soil Treatment*, CPS 521 – *Pond Sealing or Lining, Geomembrane or Geosynthetic Clay Liner*, or CPS 522 – *Pond Sealing or Lining, Concrete* as accepted standards for liquid waste storage structures.

2. Solid Materials Storage Facilities

Subheading "a." of this Section states "*Locate structures on impervious surfaces (such as concrete) or soil pads with low permeability*." Ecology should provide a numerical value for an acceptable low permeability. Recently, IES completed an evaluation of a lime-stabilized natural soil pad for storage of compost. This evaluation was reviewed by Ecology and a permeability ranging from 1×10^{-5} to 1×10^{-6} cm/s was determined to be acceptable for storage of compost under a Solid Waste Permit (document attached to this memorandum).

S4.O Manure Export

CAFO operators exporting manure to unaffiliated third parties should be held to no greater tracking or recordkeeping standards than commercial fertilizer dealers selling to third parties. Conversely, any requirements for manure export to a third party considered for the upcoming permit cycle should be not limited strictly to CAFO operators but should be imposed on all providers of nitrogen fertilizer in Washington State.

S5.D. Groundwater Monitoring

The Groundwater Monitoring portion of the Permit was included in response to the June 29, 2021 State of Washington Court of Appeals Division II decision rendered in *Washington State Dairy Federation v. State* [18 Wn.App.2d 259, 490 P.3d 290 (2021)]. The Court made the point that CAFOs engage in practices (manure lagoons and compost areas) that could "cause or contribute to a violation of water quality standards", specifically groundwater quality. While the Court's decision did not specifically direct Ecology to implement groundwater monitoring as part of the Permit, Ecology determined that groundwater monitoring would be necessary to ensure permit compliance.

Direct monitoring of groundwater (i.e. groundwater sampling through use of monitoring wells) at CAFO facilities can be problematic for number of reasons. Most CAFOs are situated in areas of intensive agricultural usage by a variety of producers (vegetable and grain growers, orchardists, vintners, hop growers, in addition to other neighboring CAFO facilities) and these areas have a long history of agricultural use and production. Various types of producers are often located adjacent to each other, and their crop nutrient needs vary and result in widely diverse fertilization practices. If groundwater is located at significant depth below a CAFO operation, sampling of that groundwater may not represent the actual effect (if any) that facility's activities. The intent of groundwater monitoring under the permit is to determine if a CAFO operation is directly degrading groundwater quality. Sampling of groundwater does not provide the "early warning" that other monitoring activities can provide. Ecology should instead rely on the development of Permit requirements that provide for the evaluation of impacts as allowed under Washington Administrative Code (WAC) 173-200, *Water Quality Standards for Groundwaters of the State of Washington*, Section 080 – *Evaluation* using practices such as vadose zone monitoring, evaluation and monitoring of solid and liquid manure application, evaluation of treatment or containment processes, and (evaluation of management practices.