
WA CAFO Permit Fact Sheet

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What is AKART?

Washington State codified the concept AKART or “the use of all known, available and reasonable methods by industries and others to prevent and control the pollution of the waters of the state of Washington” years before the United States approved the Clean Water Act. AKART explains and defines “how” Washington rules and regulations will “maintain the highest possible standards to insure the purity of all waters of the state.”

WAC 173-201A-020 says:

AKART is an acronym for “all known, available, and reasonable methods of prevention, control, and treatment.” AKART shall represent the most current methodology that can be reasonably required for preventing, controlling, or abating the pollutants associated with a discharge. The concept of AKART applies to both point and nonpoint sources of pollution. The term “best management practices,” typically applied to nonpoint source pollution controls is considered a subset of the AKART requirement.

Both Washington law and federal law make it unlawful to discharge pollutants from any point source into surface waters without a permit. Washington law regulates point source discharge to groundwaters as well.

A business or municipality that sends waste water to a river or stream must obtain a discharge permit. Each permit determines the amount of pollutant that may be discharged. The permits’ effluent limits must ensure compliance with two independent requirements: (1) technology-based effluent limitations or TBELs; and

(2) water quality-based effluent limitations or WQBELs. When TBELs are not stringent enough to meet water quality standards in the receiving waters, then permit writers must develop discharge limits based on WQBELs. Washington law requires the WA State Dept. of Ecology to impose TBELs based on AKART.

This standard is similar to the Clean Water Act's TBEL requirement to apply BAT or Best Available Technology Economically Achievable, BCT or Best Conventional Pollutant Control Technology, BPT or Best Practicable Control Technology Currently Available, and BADCT or Best Available Demonstrated Control Technology to control different types of pollutants.

The federal government approves state water quality standards, including Washington's anti-degradation policy which is designed to "restore and maintain the highest possible quality of the surface waters of Washington" and "ensure that all human activities that are likely to contribute to a lowering of water quality, at a minimum, apply all known, available, and reasonable methods of prevention, control, and treatment (AKART)."

"All Known"

The law requires analysis of all technologies currently available. The law does not require implementation of the most recent, the most expensive, or the most sophisticated technology. Rather, permit writers are required to select those technologies that deliver the highest level of pollution control at reasonable costs. The law does not require facilities to develop new technologies to address discharges.

AKART is technology that is "previously developed and presently available." *ITT Rayonier v. Ecology*, PCHB 85-218, Jan. 5, 1989.

"Reasonable"

In our state Ecology has adopted the reasonableness tests that are part of the EPA's BPT, BCT, and BAT when determining whether to require a certain technology to limit pollutant discharge.

The WA Water Quality Program Permit Writer's Manual states on page 95:

Among the factors that the permit writer must consider in setting BPT effluent limits is: "...the total cost of application of technology in relation to the effluent reduction benefits to be achieved from such application..." (40 CFR 125.3(d)(1).

The BPT economic reasonableness test is intended to be a cost-benefit test and benefits are measured in terms of amounts of pollutants removed.

There is significant case law surrounding the requirement that AKART determinations are "reasonable". In another 2021 case before the WA State Court of Appeals, *Northwest Environmental Advocates (NWEA) versus Ecology*, the court agreed with Ecology that sophisticated tertiary treatment of discharges from wastewater treatment plants into Puget Sound are not AKART because costs are too high. Ecology successfully argued that secondary treatment that has been in place for years is AKART. The court's opinion is available at https://scholar.google.com/scholar_case?case=11738678367272922049&q=AKART&hl=en&as_sdt=1006

NWEA showed that newer technology, i.e. tertiary treatment, exists and can significantly reduce the amount of nitrogen and phosphorous that enters Puget Sound. But Ecology was content to write permits that:

Set nutrient loading limits at current levels from all permitted dischargers in Puget Sound and its key tributaries to prevent increases in loading that would continue to contribute to Puget Sound's impaired status.

FOTC cannot hide our disappointment at this ruling. What value did Ecology assign to the loss of salmon runs? This is one of many reasons why we continue the fight to compel Ecology to protect Washington's environment more aggressively.

AKART & Concentrated Animal Feeding Operations (CAFOs)

In June 2021, the WA State Court of Appeals agreed with environmentalists on specific points in our appeal of the WA State Dept. of Ecology's 2017 NPDES permit for CAFOs. The court said:

We hold that the PCHB erred in approving the permits as written for the following reasons. First, although the permit conditions satisfy AKART requirements for animal pens and corrals, they do not meet this standard for existing manure lagoons or composting areas . . . Finally, the T-SUM 200 standard for field application satisfies AKART requirements as applied to Eastern Washington. Accordingly, we affirm in part and reverse in part and remand the permits to Ecology for rewriting consistent with this opinion

Since that ruling Ecology has published 2023 NPDES permits for CAFOs with revised requirements for manure lagoons and compost areas. Again, FOTC believes that these requirements do not constitute AKART and do not protect waters of the state. Here is one example of our reasoning based on the history of manure lagoon regulation:

In 2017 Ecology and the WA State Dept. of Agriculture embarked on a project to evaluate all CAFO manure lagoons in the state using a tool created by the U.S. Natural Resources Conservation Service (NRCS) called Tech Note 23. This guide is available at <https://ecology.wa.gov/DOE/files/a0/a0a6c01a-af2c-428b-83ba-a30f10d8e643.pdf>

Ecology stated that the agency did not have enough information to determine whether or how much WA manure lagoons leak. Ecology believed that assessing all WA manure lagoons was AKART in 2017.

Based on this premise WSDA and conservation districts began evaluating manure lagoons in 2015 and looked at almost all the lagoons in Yakima County. Environmental advocates such as Friends of Toppenish Creek found serious flaws in these evaluations. For example, many assessments were unable to determine the thickness of lagoon liners. Without this knowledge it is impossible to estimate leakage.

NRCS and WSDA have since determined that Tech Note 23 provides guidelines but has no regulatory use. See 2021 correspondence from the WA State Dept. of Agriculture (WSDA) available at http://www.friendsoftoppenishcreek.org/cabinet/data/TN%2023%20Capper%20WSDA%20Reply_FOTC%20Letter%20to%20WSDA%20DNMP%20December%208%202021.pdf

WSDA stopped evaluating WA manure lagoons around 2017, so there are still very few lagoon assessments outside of Yakima County.

The most recent 2023 NPDES permit for CAFOs requires permitted facilities to hire an engineer to assess their lagoons. Ecology advises the engineers to use Tech Note 23 for their work. The permits require permitted CAFOs to act based on that evaluation. FOTC argues that this approach is not accepted as the proper tool by WSDA and NRCS, is susceptible to appeal from industry, and, once again, is not AKART.

FOTC, Puget Soundkeeper, Sierra Club, Center for Food Safety, and Waterkeepers Alliance will appeal Ecology's 2023 NPDES permit for CAFOs to the WA State Pollution Control Hearings Board in February 2024. Determination of AKART for manure lagoons and compost areas will be part of that appeal.

Hopefully this brief Fact Sheet helps to inform you about this important legal issue and enlist your support for our ongoing efforts.

Thank you for reading.

Friends of Toppenish Creek

You have received this Fact Sheet because you are on a list of potentially interested parties. If you do not want to receive further information, please contact Jean Mendoza at jeanmendoza@icloud.com

Glossary

BAT Best Available Technology Economically Achievable: Technology standard established by the CWA as the most appropriate means available on a national basis for controlling the direct discharge of toxic and nonconventional pollutants to navigable waters. BAT limitations in effluent guidelines, in general, represent the best existing performance of treatment technologies that are

economically achievable within an industrial point source category or subcategory. Source https://www.epa.gov/sites/default/files/2015-09/documents/pwm_app-a.pdf

BCT Best Conventional Pollutant Control Technology: Technology-based standard for the discharge from existing industrial point sources of conventional pollutants including BOD, TSS, fecal coliform, pH, oil and grease. The BCT is established in light of a two-part cost reasonableness test, which compares the cost for an industry to reduce its pollutant discharge with the cost to a POTW for similar levels of reduction of a pollutant loading. The second test examines the cost effectiveness of additional industrial treatment beyond BPT. EPA must find limits which are reasonable under both tests before establishing them as BCT. Source https://www.epa.gov/sites/default/files/2015-09/documents/pwm_app-a.pdf

BMP Best Management Practice are schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. Source https://www.epa.gov/sites/default/files/2015-09/documents/pwm_app-a.pdf

BPJ Best Professional Judgment: The method used by permit writers to develop technology-based NPDES permit conditions on a case-by-case basis using all reasonably available and relevant data

BPT Best Practicable Control Technology Currently Available: The first level of technology standards established by the CWA to control pollutants discharged to waters of the U.S. BPT limitations in effluent guidelines are generally based on the average of the best existing performance by plants within an industrial category or subcategory. Source https://www.epa.gov/sites/default/files/2015-09/documents/pwm_app-a.pdf

CAFO means a Concentrated Animal Feeding Operation, an agricultural meat, dairy, or egg facility where animals are kept and raised in confined situations. Feed is brought to the animals rather than the animals grazing or otherwise seeking feed in pastures, fields, or on rangelands. CAFOs concentrate animals, feed, waste (manure and urine), and production operations on a small area of land.

General water quality permits regulate specific discharge categories with similar characteristics that release treated stormwater or wastewater to either surface or groundwater. A general permit allows a unified approach to regulating similar facilities or industries and can simplify the permitting process. This has the potential to save the facility or industry and Ecology time and resources.

Individual water quality permits are written for one specific entity where discharge characteristics are variable and do not fit a general permit category.

Non-Point Source: Diffuse pollution sources (i.e., without a single point of origin or not introduced into a receiving stream from a specific outlet). The pollutants are generally carried off the land by storm water. Atmospheric deposition and hydro-modification are also sources of nonpoint source pollution. Source

https://www.epa.gov/sites/default/files/2015-09/documents/pwm_app-a.pdf

NPDES general permit means a permit issued by Ecology to a discharger pursuant to regulations adopted for all point source discharges into surface waters. In Washington waters of the state are groundwaters and surface waters, so this WA permit authorizes discharges to both.

Technology-Based Effluent Limitation (TBEL): An effluent limit for a pollutant that is based on the capability of a treatment method to reduce the pollutant to a certain concentration or mass loading level.

T-Sum is a method to determine when to make the first application of nitrogen fertilizer in spring. The 'T-Sum' value is the accumulated mean daily temperatures (in ° C) above zero, starting on January 1 (below-zero temperatures are ignored).

For example, if the mean daily temperatures for a 5-day period were 6, 3, 0, 1, and -4°C, the 'T-Sum' total is 10. Research carried out first in the Netherlands and the UK, then confirmed in coastal BC, demonstrated that grass crops respond well to spring fertilizer that is applied when T-SUM is between 200 and 300. T-SUM 200 was reached during the first week in February 2023 for Western Washington

Source: <https://farmwest.com/climate/calculator-information/t-sum-200/>

PCHB is the WA State Pollution Control Hearings Board. The three member PCHB, is semi-judicial. The PCHB hears and decides appeals from state and local governmental agencies on a wide variety of environmental permits of penalty

orders. Appearing before the PCHB is the first step for relief from a contested ruling by Ecology.

Point Source: Any discernible, confined, and discrete conveyance, including any pipe, ditch, channel, tunnel, conduit, well, discrete fixture, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. The term does not include return flows from irrigated agriculture or agricultural storm water runoff. Source https://www.epa.gov/sites/default/files/2015-09/documents/pwm_app-a.pdf

Regulations are issued by the various administrative agencies, which get their authority to regulate from specific statutes. In Washington the WACs are regulations. WACs must be written by the agencies to implement statutes, the RCWs.

Statutes are the laws enacted by the legislature and signed by the Governor. In Washington the RCWs are statutes.

State Only General Permit for CAFOs is a Washington permit for CAFOs that only discharge to groundwater and not to surface water.

Water Quality Based Effluent Limitation (WQBEL): An effluent limitation determined by selecting the most stringent of the effluent limits calculated using all applicable water quality criteria (e.g., aquatic life, human health, wildlife, translation of narrative criteria) for a specific point source to a specific receiving water.