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Western Environmental Law Center

August 29, 2016

Via Electronic Mail

Jon Jennings
WA State Department of Ecology
Water Quality Program
P.O. Box 47696
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Re: Conservation Organization Comments on Draft WA CAFO Permit

Dear Mr. Jennings,

These comments are being submitted on behalf of Puget Soundkeeper Alliance, Community Association for Restoration of the Environment, Friends of Toppenish Creek, Sierra Club, Center for Environmental Law and Policy, Environment Washington, Columbia Riverkeeper, The Lands Council, Citizens for a Healthy Bay, Snake River Waterkeeper, Five Corners Family Farmers, Concerned Citizens of the Yakama Indian Reservation, Waterkeeper Alliance, Center for Food Safety, Socially Responsible Agriculture Project, Food and Water Watch, Aqua Permanente, Spokane Riverkeeper, Whidbey Environmental Action Network, Safe Food and Fertilizer, Animal Legal Defense Fund, Citizens for Sustainable Development, Friends of the Earth, Bob Aegerter, Wendy Harris, Judith Atkins, Pam Borso, Randolph Allan Jones, PA-C (Ret.) (collectively referred to as “Commenters”). These organizations and individuals are committed to conserving and protecting the surface and ground waters of Washington state from the numerous pollutants that are being discharged into waters of the state from Concentrated Animal Feeding Operations (“CAFOs”), as well as the fundamental, constitutional rights of Washingtonians who are entitled to a healthful and pleasant environment, clean drinking water, and swimmable, fishable waterways.¹

We appreciate the opportunity to submit written comments on the draft, but remain frustrated that the Washington Department of Ecology (“Ecology”) has not followed the advice of its own scientists. On October 2, 2015, Commenters submitted comments on the preliminary draft of the CAFO Permit that Ecology developed. Those comments, and all exhibits submitted in support of those comments, are hereby attached and incorporated by

¹ RCW 43.21A.010; 33 U.S.C. § 1251 et seq.

reference because it appears that Ecology has neglected to consider or incorporate any of our recommendations.² The comments submitted below are intended to supplement our earlier comments on the preliminary draft in light of changes Ecology made to the draft permit and based upon new scientific and factual information that has come to light since the comments on the preliminary draft were submitted. All of the documents cited in these comments are hereby incorporated by reference and shall be made a part of the administrative record for the development of the CAFO Permit.

Even though it has been five years since the last CAFO permit expired, we respectfully request that Ecology make the very significant changes called for in this comment letter and develop a CAFO permit that protects human health and the environment. Ecology has the legal tools and science it needs to produce a permit that fulfills the purposes of the many federal and state laws designed to protect the public from the rampant pollution that comes from these industrial facilities. Thousands of Washington residents in the rural communities affected by these facilities are forced to live with contaminated drinking water, polluted surface water, decreased property values, increased health risks, and a reduced quality of life. A strong CAFO permit represents the best option available to restore water quality and protect public health in these communities. There is overwhelming scientific evidence regarding this problem, much of which is referenced in this letter and associated documents. While we understand that Ecology has an obligation to consider costs that farmers will incur in complying with the permit, the primary purpose of the permit is to protect public health and the environment. With this Draft Permit, Ecology has failed completely to strike a proper balance between these objectives, erring in favor of the dairy industry and other agricultural interests.

I. Ecology Should Abandon A State-Only Permit Option

In drafting two separate CAFO permits, one state discharge permit and one combined state and federal permit, Ecology has (1) contradicted legislative intent; (2) created an unfunded administrative burden for the agency; (3) misinterpreted the plain language of the federal Clean Water Act; (4) ignored an entire category of point sources that are present on most, if not all, CAFOs, and are actively discharging to the surface waters of Washington; and (5) disregarded the science that shows discharges to surface water can happen via the groundwater. Ecology should not abandon its normal practice, codified in regulation, of issuing a combined state-federal permit, in lieu of two separate permits:

For a given facility, permit requirements under this chapter [state discharge permit program] and NPDES permit requirements under Water Pollution Control Act, RCW 90.48.260, shall under normal circumstances, be contained in a single permit document.³

² Ecology, WELC Comments on Preliminary Draft Permit, *at* <http://www.ecy.wa.gov/programs/wq/permits/cafo/commentsOct2015.html> (last visited August 16, 2016).

³ WAC 173-216-140.

a. The Washington Legislature Rejected A Two-Permit Approach

During the 2016 Washington Legislative session, legislation was introduced to direct Ecology to do what it has voluntarily chosen to do on its own: to establish a water discharge permit for CAFOs that is issued under the sole authority of state law. House Bill 2840, sought to amend RCW 90.48.260, 90.64.030 and 90.64.120 by directing Ecology to “establish a general permit issued under the sole authority of this chapter that is available to concentrated animal feeding operations that discharge exclusively to groundwater.”⁴ The Legislature soundly rejected HB 2840, and its companion Senate Bill 6568, and declined to confer upon Ecology the authority to take this two-permit approach to CAFO pollution. Moreover, when the Dairy Industry attempted to amend the budget with provisos on this topic, the Senate and House rejected these amendments. Ecology should not now pursue an approach that the Legislature plainly rejected

By not passing legislation on this topic (HB 2840 and SB 6568), the Legislature reaffirmed what Congress concluded in the 1970s: CAFOs are point sources under the federal Clean Water Act and thus are subject to the NPDES permit requirement.⁵ Furthermore, the Legislature’s actions are consistent acknowledged the scientific reality that there is no such thing as a CAFO that only discharges to groundwater. In areas where CAFOs are primarily located in Washington, the surface and ground waters are hydrologically connected, making it infeasible that a facility would only discharge to ground water. Indeed, Ecology has recently acknowledged “the documented continuity between surficial groundwater and surface water in Washington State”⁶ Because the Legislature rejected HB 2840 and SB 6568, Ecology cannot now claim that it is acting consistent with Legislative intent.⁷

b. Ecology Does Not Have The Resources To Implement Two Permits

Without question, the drafting, implementation and enforcement of two separate permits, as opposed to one, imposes an additional administrative burden upon Ecology. Because the legislation authorizing Ecology to take this approach failed to pass, Ecology was not provided additional funding in its budget to successfully implement two separate permits. Therefore, it would be improper for Ecology to pursue an approach for which it has neither the funding nor the staffing to implement or enforce.

⁴ HB 2840 Section 1(a) (Exhibit A).

⁵ 33 U.S.C. §§ 1342, 1362(14); Conservation Organization Preliminary Comments, Exhibit 1.

⁶ Ecology, Manure & Groundwater Quality Literature Review, Ecology Publication No. 16-03-026 (June 2016) (“Ecology Manure Literature Review”) at 29; *see also Postema v. Pollution Control Hearings Bd.*, 142 Wn.2d 68, 80 (2000) (stating that “[t]he groundwater code recognizes that surface waters and groundwater may be in hydraulic continuity” and “[h]ydraulic continuity between ground and surface waters is also recognized in the Water Resources Act of 1971”).

⁷ Letter from WA Legislators to Ecology Director Bellon (June 1, 2016) (Exhibit B) (urging Ecology “to continue moving toward adoption of a comprehensive NPDES clean water act permit that would cover all medium and large” CAFOs and opposing “any steps by the Department to move forward with a state-only discharge permit without explicit direction from the Legislature to do so.”).

c. CAFOs Are Point Sources Under The CWA, Subject To The Combined State-NPDES Permit Requirement

Commenters have already provided Ecology with the legal and factual basis to support Ecology's finding that all medium and large CAFOs in the state should be covered by a combined state-federal discharge permit because they are either actively discharging to waters of the state or should be designated as CAFOs under state and federal law.⁸ In addition, the Washington Court of Appeals has recognized:

CAFOs need pollution discharge permits because they apply animal manure containing nitrogen to crops for fertilization. Nitrate nitrogen "poses the greatest risk to groundwater . . . because it is the most soluble form of nitrogen and moves most easily in water through soil."⁹

Since those comments were submitted, there have been additional surface water discharges that trigger NPDES Permit Coverage. For example, the Dairy Nutrient Management Program ("DNMP") identified a discharge of manure that occurred on March 23, 2016 and "continued to have impacts to waters of the state through March 31, 2016."¹⁰ Also in March of this year at a different facility, "the lack of following standard practices allowed the valve directing manure to the underground field line and into the field to remain open" and the samples collected "exceeded the state water quality standard for fecal coliform bacteria at the point of discharge and downstream."¹¹ Both of these constitute discharges to surface water that should trigger coverage under the combined state-federal NPDES permit. Ecology is within possession of the names of facilities that have been and are discharging to surface waters of the state and must use this information when making its coverage determinations. At the very least, S2.A of the Draft Combined Permit should be revised to mandate that all facilities with knowledge of or in receipt of data, communications, information and/or penalties from any state agency identifying a discharge to surface water must apply for coverage under the Combined Permit.

d. Tile Drains Are Point Sources

A number of CAFOs in the state of Washington have tile drains that directly convey pollutants into surface waters in the state of Washington. Tile drains constitute a point source discharge from a CAFO facility.¹² In determining which facilities should be subject to the combined state-federal permit (as opposed to the state only permit), Ecology must obtain and review the location of all tile drains on the CAFO facility. Because the location of tile drains is not information that is publicly available, Ecology must seek this

⁸ Conservation Organization Comments on Preliminary Permit at 5-10.

⁹ *Comm'y Ass'n for Restoration of Env't. v. Ecology*, 149 Wn. App. 830, 835-36, 205 P.3d 950 (2009).

¹⁰ See Email from Virginia Prest to Jeremy Friemund, et al. re: WSDA issues two penalties to dairy producers in the Sumas Watershed, Whatcom County (July 21, 2016) (Exhibit C).

¹¹ *Id.*

¹² 40 C.F.R. § 412.4(b)(1) ("Examples of conduits to surface waters include but are not limited to: Open tile line intake structures, sinkholes, and agricultural well heads.").

information directly from the facilities and/or the conservation districts and take this information into account when making its coverage determinations. In addition, S2.A of the Draft Combined Permit should be revised to require all CAFOs with tile drains that discharge to surface water to apply for coverage. In addition, the effluent from tile drains, as point sources, should be monitored for nitrate, fecal coliform, phosphorus and all of the other constituents identified in the draft permit (including hormones and pharmaceuticals).

e. Discharges To Surface Water Via The Groundwater Trigger Permit Coverage

Ecology should eliminate the state-only permit option because it disregards the scientific and legal reality that CAFOs that discharge to groundwater are likely conveying pollutants into the surface water via the groundwater. Ecology has a legal responsibility to “consider the interrelationship of the groundwater with the surface waters”¹³ The state’s groundwater code explicitly recognizes the scientific reality of hydrologic connectivity:

The rights to appropriate the surface waters of the state and the rights acquired by the appropriation and use of surface waters shall not be affected or impaired by any of the provisions of this supplementary chapter and, to the extent that any undergroundwater is part of or tributary to the source of any surface stream or lake, or that the withdrawal of groundwater may affect the flow of any spring, water course, lake, or other body of surface water, the right of an appropriator and owner of surface water shall be superior to any subsequent right hereby authorized to be acquired in or to groundwater.¹⁴

In addition, the groundwater code “emphasizes the potential connections between groundwater and surface water, and makes evident the Legislature’s intent that groundwater rights be considered a part of the overall water appropriation scheme, subject to the paramount rule of ‘first in time, first in right.’”¹⁵ The concept of hydrologic connectivity is also recognized in the Water Resources Act of 1971: “Full recognition shall be given in the administration of water allocation and use programs to the natural interrelationships of surface and groundwaters.”¹⁶

Courts “generally agree that waters of the United States do not include isolated, nontributary groundwater, and that discharges of pollutants into such groundwater are not subject to CWA regulation.”¹⁷ However, courts within the Ninth Circuit have made it clear

¹³ *Postema*, 142 Wash. 2d at 80.

¹⁴ RCW 90.44.030.

¹⁵ *Rettkowski v. Dep’t of Ecology*, 122 Wash.2d 219, 226 n.1, 858 P.2d 232 (1993).

¹⁶ RCW 90.54.020(9).

¹⁷ *See, e.g., IRC v. Bosma*, 143 F.Supp.2d at 1179; *Exxon Corp. v. Train*, 554 F.2d 1310, 1319 (5th Cir. 1977) (EPA disclaimed “jurisdiction and authority to regulate subsurface disposal directly” and conceded that groundwater is not part of the “navigable waters” of the United States).

that “the CWA extends *federal jurisdiction over groundwater that is hydrologically connected to surface waters that are themselves waters of the United States.*”¹⁸

On May 30, 2014, the District Court of Hawaii acknowledged that a discharger can be held liable for discharges of pollutants that reach the surface water via groundwater, i.e. when the groundwater serves as a “conduit” for the discharge of pollutants into the surface water:

Under this court’s reading of the Clean Water Act and the court’s extrapolation from appellate law, Plaintiffs may also prevail if they show that the discharge into the groundwater below the LWRF is functionally equivalent to a discharge into the ocean itself. That is, ***liability arises even if the groundwater under the LWRF is not itself protected by the Clean Water Act, as long as the groundwater is a conduit through which pollutants are reaching navigable-in-fact water.***

* * *

It may be inferred from this narrow list of exclusions [from the definition of point source] that Congress sought to include sufficiently ‘confined and discrete’ groundwater conduits as ‘point sources under the Act. *See Tang v. Reno*, 77 F.3d 1194, 1197 (9th Cir. 1996) (“An item which is omitted from a list of exclusions is presumed not to be excluded.”) (internal quotation marks omitted). There is nothing inherent about groundwater conveyances and surface water conveyances that requires distinguishing between these conduits under the Clean Water Act. When either type of waterway is a conduit through which pollutants reach the ocean, then there has been the ‘addition of [a] pollutant to navigable waters.’ 33 U.S.C. § 1362(12)(A).

* * *

An unpermitted discharge into the groundwater, without more, does not constitute a violation of the Clean Water Act. It is the migration of the pollutant into navigable-in-fact water that brings groundwater under the Clean Water Act. In other words, if a party were only releasing rocks or other fill materials that did not cause pollutants to migrate through groundwater, this court would not be talking about this ‘conduit’ theory for liability under the Clean Water Act. This theory applies only when

¹⁸ *Id.* (emphasis added) (relying on the perspective “that Congress intended to regulate the discharge of any pollutants that could affect surface waters of the United States, whether it reaches the surface water directly or through groundwater.”); Rodgers Environmental Law § 4.8 (1977) (“There is little doubt that discharges into groundwater’s that eventually move into surface water are prohibited under Section 301 of the [Clean Water] Act.”).

pollutants find their way to navigable-in-fact waters. In that event, a permit is required.¹⁹

In 2009, the Ninth Circuit Court of Appeals found the “significant nexus” test met where pollution in a pond seeped into a nearby river affecting its chemical (chloride seeping from the pond into the river), physical (occasional surface connection between pond and river, as well as underground hydrologic connection between the two bodies), and biological integrity.²⁰ Other courts within the Ninth Circuit have found that discharge into groundwater hydrologically connected to waters of the United States triggers jurisdiction of the CWA.²¹ The rationale supporting this conclusion is simple and persuasive: “since the goal of the CWA is to protect the quality of surface waters, any pollutant which enters such waters, whether directly or through groundwater, is subject to regulation by NPDES permit.”²² Stated even more simply, whether pollution is introduced by a visible, above-ground conduit or enters the surface water through the aquifer matters little to the fish, waterfowl, and recreational users which are affected by the degradation of our nation's rivers and streams.²³

Nearly twenty years ago one district court in Oregon held that the CWA does not cover discharge of pollutants into any groundwater, regardless of whether it is hydrologically connected to a water of the United States.²⁴ This approach was subsequently rejected by a district court in California after considering the purpose of the CWA and congressional intent:

¹⁹ *Hawaii Wildlife Fund v. County of Maui*, 24 F. Supp. 3d 980, 2014 WL 2451565 at *12 (D. Hawaii, May 30, 2014) (emphasis added).

²⁰ *City of Healdsburg*, 496 F.3d at 1000.

²¹ *Wash. Wilderness Coalition v. Hecla Mining Co.*, 870 F. Supp. 983 (E.D. Wash. 1994) (pollutants that migrate from tailings ponds through groundwater into water of the United States are covered by the CWA); *Idaho Rural Council v. Bosma*, 143 F.Supp.2d 1169 (D. Idaho 2001) (wastewater seeping from holding ponds into hydrologically connected groundwater constitutes a violation of the CWA), *Coldani v. Hamm*, CVS07 660RRB EFB, 2007 WL 2345016 (E.D. Cal. Aug. 16, 2007) (allegations of discharge into groundwater hydrologically connected to water of the United States survive dismissal); *U.S. Steel Corp. v. Train*, 556 F.2d 822, 852 (7th Cir.1977); *Friends of Santa Fe County v. LAC Minerals, Inc.*, 892 F.Supp. 1333, 1357 (D.N.M.1995) (the Tenth Circuit's expansive construction of the CWA's jurisdictional reach, “foreclose any argument that the CWA does not protect groundwater with some connection to surface waters”); *Sierra Club v. Colorado Refining Co.*, 838 F.Supp. 1428, 1434 (D.Colo.1993) (“discharge of any pollutant into ‘navigable waters’ includes such discharge which reaches ‘navigable waters’ through groundwater”); *McClellan Ecological Seepage Situation (MESS) v. Weinberger*, 707 F.Supp. 1182, 1196 (E.D.Cal.1988) (Congress intended to regulate “discharges of pollutants that could affect surface waters of the United States”).

²² *Washington Wilderness Coalition*, 870 F.Supp. at 990.

²³ *Id.* at 1179-80.

²⁴ *See Umatilla Water Quality Protective Ass'n, Inc. v. Smith Frozen Foods, Inc.*, 962 F.Supp. 1312 (D. Or. 1997).

“The court does not find the reasoning of these cases persuasive given the declared objectives of the CWA and the broad definition that Congress intended with respect to waters within the purview of the CWA.”²⁵

The District Court of Oregon has also subsequently found a violation of the CWA where pollutants were introduced into hydrologically connected groundwater. The court concluded, “contrary to *Umatilla*, the CWA covers discharges to navigable surface waters via hydrologically connected groundwater.”²⁶ The court relied upon EPA’s proposed CAFO rule from 2001 where the agency “restat[ed] that [it] interprets the Clean Water Act to apply to discharges of pollutants from a point source via ground water that has a direct hydrological connection to surface water.”²⁷

Ecology now recognizes the scientific fact that all unlined manure lagoons leak to groundwater. As described above, there is compelling case law to support liability for discharges of pollutants to hydrologically-connected groundwater because it serves as a conduit to surface water. Strong scientific evidence also supports the connectivity of groundwater to surface water in Washington. As such, Ecology must require all facilities with unlined manure lagoons to obtain coverage under the combined state/ federal NPDES permit. A facility that believes its groundwater discharges are isolated from surface water may seek an exception to this rule only if it proves the hydrologic isolation using the state’s legal recognition of hydrologic connectivity.

II. The State-Only Permit Is Not Enforceable By Citizens

Only the state can enforce a state-only general discharge permit.²⁸ Citizens do not have the ability to initiate an enforcement action as they would under the Combined NPDES/State Discharge Permit when a Permittee is violating the terms and conditions of a state general discharge permit. This is a significant problem for several reasons. First, given the strong political influence of the industrial agricultural industry, Ecology is constrained in its ability to take enforcement actions against CAFOs.²⁹ Second, Ecology has existing legal constraints when it comes to taking enforcement actions against CAFOs.³⁰ Third, Ecology’s obligation to rely upon the WSDA’s Dairy Nutrient

²⁵ *Coldani v. Hamm*, CVS07 660RRB EFB, 2007 WL 2345016 (E.D. Cal. Aug. 16, 2007).

²⁶ *Nw. Env'tl. Def. Ctr. v. Grabhorn, Inc.*, CV-08-548-ST, 2009 WL 3672895 (D. Or. Oct. 30, 2009) (“Nevertheless, both before and after the decision in *Umatilla*, EPA has made clear that it believes that discharges to groundwater with a direct hydrologic connection to navigable surface waters is subject to regulation under the CWA.”).

²⁷ *Id.* at *11 (citing 66 Fed. Reg. 2960, 3015 (Jan. 12 (2001) (proposed rulemaking NPDES Permit Regulation and Effluent Limitations Guidelines and Standards for Concentrated Animal Feeding Operations)).

²⁸ WAC 173-226-250.

²⁹ *See, e.g.*, WELC, *Agricultural Pollution in Puget Sound: Inspiration to Change Washington’s Reliance on Voluntary Incentive Programs to Save Salmon* (April 2016) at 15-16.

³⁰ RCW 90.48.450(1) (“Prior to issuing a notice of violation related to discharges from agricultural activity on agricultural land, the department shall consider whether an enforcement action would contribute to the conversion of agricultural land to nonagricultural uses. Any enforcement action shall attempt to minimize the possibility of such conversion.”).

Management Program (“DNMP”) is a proverbial case of the fox guarding the hen house. The DNMP has a proven track record of failing to protect the waters of the state, and the people and animals that depend upon clean water, from harmful CAFO pollution.³¹ Fourth, Washington residents have a fundamental, constitutional right to a healthful and pleasant environment.³² When private entities, such as CAFOs, are taking action that violates that right, residents should have the ability to protect themselves in a court of law.

The need for citizen enforcement is especially acute where a citizen’s rights are not otherwise being protected. If the residents of Washington could depend on Ecology or some other state agency to protect their rights to clean water, the removal of citizen enforcement might be less alarming. Unfortunately, that is not the case. The problem of inadequate state enforcement of laws against CAFO pollution is neither new nor exclusive to Washington. In fact, a recent EPA audit found that despite high levels of noncompliance with key environmental protection laws, state enforcement levels are far too low.³³ Notably, Washington ranked at the bottom for effective Clean Water Act enforcement programs.³⁴ These findings are consistent with the experience of citizen groups, such as Puget Soundkeeper Alliance, in reviewing polluters’ compliance with clean water laws—and the infrequent enforcement actions taken by the states and EPA to protect citizens’ rights to clean water.

In fact, citizens are one of a nation's greatest resources for enforcing environmental laws and regulations – and citizen enforcement has become a driving force to incentivize permit compliance in Washington State. In a regulatory regime where a state agency is unable, or unwilling, to take action to protect the rights of its citizens, it must, at the very least, stop erecting barriers to prevent its citizens from protecting themselves.

If the residents in the Lower Yakima Valley had not been able to take Cow Palace to court, to this day many Washington residents would be forced to drink contaminated water and suffer the health consequences. That is not the American way. As Robert F. Kennedy Jr., Hudson Riverkeeper’s Chief Prosecuting Attorney and President of Waterkeeper Alliance, so aptly notes, “environmental injury is an assault on democracy, because the most important measure of how a democracy is functioning is how it distributes the goods of the land, the commons. Democracy must ensure that the public-

³¹ See, e.g., Conservation Organization Comments on Preliminary Draft of CAFO Permit at 19-22.

³² RCW 43.21A.010 (recognizing the “fundamental and inalienable right of the people of the state of Washington to live in a healthful and pleasant environment and to benefit from the proper development and use of its natural resources. The legislature further recognizes that as the population of our state grows, the need to provide for our increasing industrial, agricultural, residential, social, recreational, economic and other needs will place an increasing responsibility on all segments of our society to plan, coordinate, restore and regulate the utilization of our natural resources in a manner that will protect and conserve our clean air, our pure and abundant waters, and the natural beauty of the state.”).

³³ See United States Environmental Protection Agency, Office of Inspector General, Report No. 12-P-0113, *EPA Must Improve Oversight of State Enforcement* (December 9, 2011), at <https://www.epa.gov/sites/production/files/2015-10/documents/20111209-12-p-0113.pdf> (last visited August 29, 2016).

³⁴ *Id.* at 39.

trust assets stay within the hands of the people.”³⁵ Citizen enforcement of clean water laws and pollution discharge permits is an indispensable component of protecting the public from pollution flowing from industrial agriculture operations. Ecology should abandon the state-only permit option.

III. Ecology Fails To Identify The Facilities To Be Covered By The Permit

Preparation of a fact sheet is a mandatory duty that must be completed “for every draft general permit determination.”³⁶ Fact sheets “shall summarize the following:”

A listing or some other means of identifying the facilities proposed to be covered under the general permit.³⁷

The Fact Sheet for the CAFO general permit does not contain this information. Ecology has publicly stated that the permit “potentially covers up to 95 percent of all dairy cows in Washington,”³⁸ but is silent as to which facilities will be required to seek coverage under the combined and/or state-only permit. The public is entitled to this information as it is required to be contained in the Fact Sheet. This information is especially important in light of the reality of what transpired with the last version of the CAFO permit. In 2006, Ecology claimed that the permit would cover a large number of facilities, but only a handful of facilities were ultimately required to seek coverage. Please identify those facilities that will be required to obtain coverage under the combined federal/state permit.

IV. The Permit Does Not Cover An Adequate Number of CAFO Facilities

a. All Medium & Large CAFOs That Have Or Have Had A Discharge To Surface Water Must Seek Coverage Under The Combined Federal-State Permit

Commenters agree with Ecology that large and medium CAFOs that have or had a discharge to surface waters should be required to seek coverage under the combined state/federal permit. However, Ecology must identify these facilities, by name and location, in the Fact Sheet. For other general permits, Ecology identifies the entities that are required to seek coverage.³⁹ Ecology has provided no justification from deviating

³⁵ Grist, An Interview With Robert F. Kennedy, Jr., Environmental Advocate and Bush Basher (July 14, 2004), at <http://grist.org/article/griscom-kennedy/> (last visited August 16, 2016).

³⁶ WAC 173-226-120(1).

³⁷ WAC 173-226-120(1)(e); *see also* WAC 173-220-060 (NPDES permit fact sheet shall summarize “the location of the discharge in the form of a sketch or detailed description.”); *see also* WAC 173-226-130(e) (“The department shall make available during the public comment period . . . (v) A listing or some other means of generally identifying the facilities proposed to be covered under the general permit.”).

³⁸ Ecology, Concentrated Animal Feeding Operation General Permit, Draft Permit Facts At A Glance, at <http://www.ecy.wa.gov/programs/wq/permits/cafo/faqs.html> (last visited August 8, 2016).

³⁹ *See, e.g.*, Ecology General Permit for Biosolids Management (2015).

from this standard practice for CAFOs. We agree with the Washington Board of Health that “requir[ing] nearly all CAFOs in Washington to obtain a NPDES permit” “is a step in the right direction to protect human health and those that reside near CAFOs.”⁴⁰ As such, Commenters urge Ecology to attach a list of facilities, including name and location, as an Appendix to the Fact Sheet.

b. All CAFOs With Earthen Manure Lagoons Must Seek Coverage Under the Combined Federal-State Permit

All CAFOs that have earthen manure lagoons should be required to seek coverage under the combined state/federal permit because the science is clear that all unlined manure lagoons leak.⁴¹ Ecology recognized this scientific reality in the preliminary draft of the permit:

[I]f the CAFO has a lagoon that does not have a double *geomembrane liner* with a leak detection system between the liner layers that it is discharging to groundwater.⁴²

Now, Ecology has backtracked and instead “has developed a number of risk factors that if present would lead Ecology to believe based on a predominance of the evidence that a lagoon is discharging to groundwater.”⁴³ This approach continues to put public health at risk and fails to account for the fact that **all manure lagoons are designed to leak**.

According to U.S. District Court Judge Rice:

The fact that the lagoons leak is genuinely not in dispute.

Even assuming the lagoons were constructed pursuant to NRCS standards, these standards specifically allow for permeability and, thus, the lagoons are designed to leak.

There can be no dispute that the lagoons are leaking and thus allowing nitrate to accumulate into the soil at rates possibly higher than three million gallons per year.⁴⁴

⁴⁰ Letter from Washington State Board of Health to Ecology re: Comments on Preliminary Draft of CAFO Permit (October 2, 2015), at <http://www.ecy.wa.gov/programs/wq/permits/cafo/docs/commentsOct2015/sboh.pdf> (last visited August 12, 2016).

⁴¹ Conservation Organization Comments on Preliminary Draft of CAFO Permit at 5-8.

⁴² Preliminary Draft of CAFO Permit at 5.

⁴³ Draft CAFO Permit Fact Sheet at 33.

⁴⁴ *CARE et al. v. Cow Palace et al.*, No. CV-13-3016-TOR (E.D. WA) (Order on Summary Judgment) (January 14, 2015), at <http://charlietebbutt.com/files/CP/320%20-%20Order%20Granting%20in%20Part%20Mtn%20for%20Summary%20Judgment.pdf> (last visited August 15, 2016).

Ecology's own scientists acknowledge the fact that earthen manure lagoons leak:

Numerous studies have documented leakage from manure lagoons and some have documented impacts to groundwater from nitrate, ammonium, veterinarian pharmaceuticals, chloride, TDS, and bacteria.⁴⁵

* * *

Researchers agree that lagoon liners are not an impermeable barrier to the downward movement of contaminants. In general, they note that contaminant concentrations are greatest near the floor of the lagoon and decrease with depth.⁴⁶

* * *

The proposed design below the seasonal high water table is not a viable option because this constitutes a direct discharge of untreated manure into groundwater, *since all liners leak*.⁴⁷

* * *

Lagoon leakage studies previously conducted by Ecology identify groundwater contamination in areas where there are direct discharges to groundwater [from leaking manure lagoons].⁴⁸

There is no basis for Ecology to disregard the findings of a federal district judge, its own scientific experts, and the overwhelming scientific evidence. All CAFOs with unlined manure lagoons are discharging to groundwater and hydrologically connected surface water and must be required to seek coverage under the combined federal/state discharge permit. Ecology's claims that there are manure lagoons that leak but don't discharge to groundwater are wholly unsupported. Ecology's own scientists have stated that they have never seen a study showing a leaking lagoon that does not discharge to groundwater. Given the public health risks associated with contaminated drinking water and the fact that cleaning up polluted groundwater is very costly, if possible at all, Ecology has the factual and scientific basis to support the finding it made in the Preliminary Draft of the CAFO Permit that all unlined manure lagoons leak and trigger permit coverage. In addition, since it is scientifically impossible to discharge only to groundwater, the state-only permit is a figment of legal imagination and fiction, and should not be pursued.

There are regions of the state, such as areas in Whatcom County, where the groundwater table is so high that many of the manure lagoons are discharging into hydrologically connected surface waters. Where hydrologically connected discharges are present, failure

⁴⁵ Ecology, Manure Literature Review at 99.

⁴⁶ *Id.*

⁴⁷ *Id.* at 132 (Appendix C: Construction of Dairy Lagoons Below The Seasonal High Groundwater Table).

⁴⁸ *Id.* at 128.

to regulate the discharges under the Clean Water Act violates the federal no discharge effluent limitation guidelines set forth in 40 C.F.R. Part 412. Ecology has the scientific information to identify those facilities that have lagoons within the groundwater table and must use that information to require coverage under the combined state/federal discharge permit.

We understand, but remain neutral on, Ecology's approach to require only those small CAFOs that are a "significant contributor of pollutants to surface water or groundwater" to seek coverage under the combined state/federal permit.⁴⁹ Commenters believe that small facilities are a part of the solution for sustainable agriculture that is conducted in a way that protects water quality, but recognize the reality that some farms under 200 head of dairy cows constitute a significant pollution problem that needs to be addressed. Commenters suggest that for those small facilities that are discharging pollutants to waters of the State, Ecology develop a regulatory plan to eliminate the discharges coming from those facilities through the use of administrative orders as opposed to coverage under the CAFO General Permit. That may be a more cost-effective and flexible way to address the problem. We would like to note that federal law mandates that medium and large (not just small) CAFOs that are significant contributors of pollutants to surface water or groundwater also be required to seek coverage under the combined permit as well.⁵⁰

V. The Draft Permit Contains Inadequate Discharge Limits

a. The Permit Is Misleading Regarding The "No Discharge" Standard

The Draft Combined Permit contains the following description of activities covered by the permit:

This statewide general permit conditionally authorizes the *discharge* of *pollutants* to both surface and groundwaters from the *production area* and *land application fields* or *management units* that result from operating a CAFO. The terms land application field or field will be taken to include management unit for the purpose of this permit.⁵¹

However, Ecology has no authority under either federal or state law to authorize such a discharge. Under federal law: "there must be no discharge of manure, litter, or process wastewater pollutants into waters of the U.S. from the production area."⁵² Ecology does recognize the "no discharge" standard in section S3 of the combined permit and in the Fact Sheet, but its language in the permit authorizing a discharge is contradictory and confusing and should be deleted. Ecology must make it clear that this permit has a "no

⁴⁹ Draft Combined CAFO General Permit at 7.

⁵⁰ 40 C.F.R. § 122.23 ("The appropriate authority (i.e., State Director or Regional Administrator, or both, as specified in paragraph (c)(1) of this section) may designate any AFO as a CAFO upon determining it is a significant contributor of pollutants to waters of the United States.").

⁵¹ Draft Combined CAFO General Permit at 7.

⁵² 40 C.F.R. § 412.31.

discharge” standard. Unfortunately, as discussed below, in practice Ecology has authorized discharges in violation of state and federal law.

b. Ecology Illegally Gives CAFOs Permission To Discharge Agricultural Stormwater

Ecology states that a “Permittee is prohibited from discharging manure, litter, feed, process wastewater or other water that has come into contact with those materials from its land application fields except . . . if the discharge is agricultural stormwater.”⁵³ Nothing in federal or state law gives Ecology the authority to authorize discharges of agricultural stormwater into waters of the state. While agricultural stormwater is not included within the definition of a point source, and thus is not subject to the permit requirement, that does not make it legal for a CAFO to discharge pollutants into waters of the state via agricultural stormwater.⁵⁴

Ecology, the state agency “designated as the state water pollution control agency for all purposes of the federal clean water act,”⁵⁵ is given broad authority “to control and prevent the pollution of streams, lakes, rivers, ponds, inland waters, salt waters, water courses and other surface and underground waters of the state of Washington.”⁵⁶ Similar to the federal CWA, in Washington:

It shall be unlawful for any person to throw, drain, run, or otherwise discharge into any of the waters of this state, or to cause, permit or suffer to be thrown, run, drained, allowed to seep or otherwise discharged into such waters any organic or inorganic matter that shall cause or tend to cause pollution of such waters according to the determination of the department, as provided for in this chapter.⁵⁷

As Ecology makes clear, “[u]nder state law, it does not matter whether the pollution comes from a point or NPS [nonpoint source], all pollution of state waters is subject to Ecology’s authority to control and prevent pollution.”⁵⁸ Ecology contradicts itself in the permit by giving CAFOs carte blanche permission to discharge agricultural stormwater into the waters of Washington. While Ecology can state that agricultural stormwater discharges are not subject to the permit requirements, they remain illegal and should not be legalized through the language in this permit.

⁵³ Draft Combined CAFO General Permit at 12.

⁵⁴ 33 U.S.C. § 1362(14); 40 C.F.R. § 122.23(e) (“The discharge of manure, litter or process wastewater to waters of the United States from a CAFO as a result of the application of that manure, litter or process wastewater by the CAFO to land areas under its control is a discharge from that CAFO subject to NPDES permit requirements, except where it is an agricultural storm water discharge as provided in 33 U.S.C 1362(13).”).

⁵⁵ RCW 90.48.260.

⁵⁶ RCW 90.48.030.

⁵⁷ RCW 90.48.080.

⁵⁸ Ecology, Washington’s Water Quality Management Plan to Control Nonpoint Sources of Pollution, Ecology Publication No. 15-10-015 (July 2015) at 7.

Ecology has the authority and obligation to take enforcement action not only when a person pollutes the water by violating a discharge permit, but also if that person “creates a substantial potential to violate” Washington water quality laws.⁵⁹ Ecology’s “potential to pollute” statutory authority stands in stark contrast to judicial interpretations of EPA’s authority to only regulate actual, not potential, discharges from point sources under the CWA.⁶⁰ The Washington Attorney General’s office has interpreted the “potential to pollute” authority to encompass the authority to mandate specific best management practices:

Consequently, Ecology not only has authority to take action following non-point source pollution but has specific statutory authority to act proactively to prevent non-point source pollution from occurring in the first place. Ecology’s authority includes the authority to require a non-point source polluter to implement specific management practices. Ecology’s authority can be used to prevent nonpoint pollution and require 6217 management measure implementation, as necessary.⁶¹

Therefore, it is quite clear that Ecology has the authority and responsibility to prevent pollution, even if it comes in the form of agricultural stormwater, pursuant to existing federal and state water quality laws. In addition, even though agricultural stormwater is not considered a point source under the Federal Clean Water Act, in a state general discharge permit, “[t]he discharge of pollutants resulting from activities not covered under the general permit for which the discharger has requested coverage [i.e. agricultural stormwater], shall be a violation of the terms and conditions of the general permit.”⁶² As such, Commenters urge Ecology to revise S3 of the Draft Combined Permit to explain simply that agricultural stormwater discharges are not subject to the permit requirements, and remove language suggesting that such discharges are authorized or somehow legal.

c. The Permit Does Not Comply With Anti-Degradation Requirements

The Draft Permit violates the state’s anti-degradation policy by allowing the continued degradation of waters of the state without conducting the requisite analysis or requiring sufficient data to be collected to identify the extent to which degradation is

⁵⁹ RCW 90.48.120. *See also Lemire v. Dep’t of Ecology*, 309 P.3d 395, 401- 402, 178 Wash. 2d 227, 239-241, (2013) (en banc) (holding that the Department of Ecology acted within its authority in issuing administrative order pursuant to Water Pollution Control Act requiring livestock rancher to address conditions that resulted in substantial potential for nonpoint source pollution on his property. “Ecology has broad authority to regulate any person causing the discharge of matters into waterways that cause or tend to cause pollution... We hold that Ecology did not exceed its authority when it ordered Lemire to comply with regulations concerning nonpoint source pollutant discharge into Pataha Creek.”).

⁶⁰ *See, e.g., Waterkeeper Alliance Inc. v. EPA*, 399 F.3d 486, 505-06 (2d. Cir. 2005).

⁶¹ Ecology, Washington’s Water Quality Management Plan to Control Nonpoint Sources of Pollution, Ecology Publication No. 15-10-015 (July 2015) at Appendix B (Letter from Ron Lavigne, Assistant Attorney General).

⁶² WAC 173-226-080(j).

occurring. A proper application of the state’s anti-degradation requirements is very important in this context, given the long-history of documented water pollution problems from CAFOs. The purpose of the antidegradation policy is to:

- (a) Restore and maintain the highest possible quality of the surface waters of Washington;
- (b) Describe situations under which water quality may be lowered from its current condition;
- (c) Apply to human activities that are likely to have an impact on the water quality of a surface water;
- (d) 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); and
- (e) Apply three levels of protection for surface waters of the state, as generally described below⁶³

The permit is flawed because Ecology exempts Permittees from complying with anti-degradation requirements. Specifically, “[e]xisting and designated uses must be maintained and protected. No degradation may be allowed that would interfere with, or become injurious to, existing or designated uses”⁶⁴ In addition, “[f]or waters that do not meet assigned criteria, or protect existing or designated uses, the department will take appropriate and definitive steps to bring the water quality back into compliance with the water quality standards.”⁶⁵ Because Ecology fails to identify the facilities that will be required to seek coverage under the permit, it is impossible to know which facilities are discharging into already-impaired waters, let alone what steps Ecology is going to take to improve water quality. For those facilities that are located in watersheds that are currently impaired, special protective measures need to be required as part of the permit. Perhaps individual permits should be required for these facilities.

Commenters agree with Ecology that “[a]ll applicants for coverage under the CAFO permit have ‘the potential to cause a measurable change in the physical, chemical, or biological quality of a waterbody,’ and meet the definition of a ‘new or expanded action.’”⁶⁶ However, the Combined Permit, as drafted, does not ensure that the anti-degradation requirements will be met. While the permit is supposed to be a “no discharge” permit, it authorizes the discharge of agricultural stormwater, the discharge of manure from lagoons into the groundwater, much of which is hydraulically connected to surface waters, and has required the implementation of very few best management practices. Anti-degradation requirements are clear and require something more:

Whenever a water quality constituent is of a higher quality than a criterion designated for that water under this chapter, new or expanded actions within the categories identified in subsection (2) of this section that are

⁶³ WAC 173-201A-300(2).

⁶⁴ WAC 173-201A-310(1).

⁶⁵ WAC 173-201A-310(2).

⁶⁶ Draft CAFO Permit Fact Sheet at 22.

expected to cause a measurable change in the quality of the water (see subsection (3) of this section) may not be allowed unless the department determines that the lowering of water quality is necessary and in the overriding public interest (see subsection (4) of this section).⁶⁷

Ecology's Tier II analysis done in an attempt to comply with WAC 173-201A-320(6) is nothing short of preposterous.⁶⁸ Not only has it taken Ecology five years to simply revise a permit that expired in 2011 (hardly "expeditious"), the result completely ignores the scientific and factual information documenting the massive amounts of pollution being discharged from these facilities and degrading the waters of the state.⁶⁹ Furthermore, the agency's conclusions contained in the Draft Permit are not supported by facts and findings. It should come as no surprise to Ecology that the waters around CAFOs are some of the most contaminated waters in the state. Ecology's own scientists have identified CAFOs as a major source of water pollution,⁷⁰ yet Ecology continues to pretend this science does not exist. This is exactly the situation that anti-degradation requirements are supposed to prevent, not perpetuate.

The Permit, as drafted is inadequate to provide the extra protection to which 303(d)-listed waters (those waterbodies Ecology identifies as not meeting water quality standards) are entitled.⁷¹ There are 3,571 active freshwater body segment/pollutant records currently listed on Washington's 2012 303(d) list.⁷² A substantial number of these segments are listed as impaired for pollutants that are being discharged by CAFOs in the normal course of business. The permit should categorically mandate coverage, and special conditions, for all CAFOs that discharge into 303(d)-listed waters. While EPA regulations prohibit the issuance of permits where permit conditions cannot ensure compliance with water quality standards (40 C.F. R. § 122.4(d)), Ecology should opt to cover these facilities and impose the no discharge requirement so that the unpermitted discharges to waters of the state does not continue.

d. The Permit Does Not Contain Adequate Technology-Based Limitations

The Fact Sheet acknowledges that "[t]he CWA requires that discharges from existing facilities, at a minimum, meet technology-based effluent limitations reflecting, among other things, the technological capability of Permittees to control pollutants in their discharges that are economically achievable."⁷³ Permit limits "must be set at levels requiring the permit holder to use the best practicable pollution control technology

⁶⁷ WAC 173-201A-320(1).

⁶⁸ Draft CAFO Permit Fact Sheet at 22-23.

⁶⁹ See generally Conservation Organization Comments on Preliminary Draft of CAFO Permit.

⁷⁰ See generally Ecology, Manure Literature Review (June 2016).

⁷¹ 33 U.S.C. § 1313(d)(1)(A).

⁷² Letter from EPA to Heather Bartlett (Ecology) re: Approval of Washington State 2012 303(d) list (July 22, 2016), at <http://www.ecy.wa.gov/programs/wq/303d/2014/Opalski-WA2012ApprovalLtr7.22.16.pdf> (last visited August 29, 2016).

⁷³ Draft CAFO Permit Fact Sheet at 17.

currently available.”⁷⁴ “Agencies issuing NPDES permits must impose limits on discharges as necessary to implement water quality standards set by state or federal statutes and regulations, *regardless of technical practicability*.”⁷⁵

Under Washington law, the legislature “has a policy of maintaining the highest possible standards to insure the purity of all waters in the state and, to that end, requires using ‘all known available and reasonable [treatment] methods’ to prevent and control the pollution of state waters.”⁷⁶ Commenters support Ecology’s approach of setting effluent limitations in the permit in lieu of the flawed Nutrient Management Plans (NMPs), but the permit does not identify, let alone require compliance with, the most basic technology-based standards for CAFOs. Ecology claims that “[t]he technical standards developed by Ecology are included in the permit special conditions and are discussed in the specific condition, or conditions, where implemented.”⁷⁷ Unfortunately, that is not the case.

1. The “Special Conditions” Do Not Qualify As TBELs

The “special conditions” identified in the permit are not technological standards, but rather a narrative description of non-enforceable pollution prevention goals. This approach violates the Clean Water Act and state law requiring implementation of technology-based standards. Many of the special conditions Ecology identifies as technology-based effluent limitations are simply general, unenforceable recommendations. For example:

The Permittee must keep manure, litter, and process wastewater from being tracked out onto public roadways.

Alternatively, if manure, litter, process wastewater, or other sources of pollutants are tracked out onto public roadways, the Permittee must clean-up the material tracked onto the roadway.⁷⁸

In essence, Ecology grants a Permittee permission to track manure onto public roadways as long as it is cleaned up at some unspecified time in the future. How does this protect the public or the waters of Washington? How can this standard be enforced?

State and federal law requires Ecology to specify the technology or practices that must be implemented to ensure that manure, litter, and process wastewater is not tracked onto public roadways. An example of a technological standard in this regard would be requiring the installation of truck washes for vehicles traveling from the CAFO onto public roadways.

⁷⁴ *Puget Soundkeeper Alliance v. Ecology*, 102 Wn.App. 783, 788, 9 P.3d 892 (2000).

⁷⁵ *Puget Soundkeeper Alliance v. Pollution Control Hearings Board*, ___ Wn.2d ___, ___ P.3d ___, 2015 WL 4540664 (WA Ct. App. July 28, 2015) (emphasis added).

⁷⁶ *Id.* at 788-89.

⁷⁷ Draft CAFO Permit Fact Sheet at 24.

⁷⁸ Combined Permit at 13.

As another example, how is requiring the Permittee to “maintain the integrity of their lagoons and other liquid storage structures” a technological standard?⁷⁹ Ecology must identify the technology that the Permittee must implement in order to achieve the narrative goal of maintaining lagoon integrity. It is impossible for a Permittee to maintain lagoon integrity in light of the fact that the science is clear that all lagoons leak. An appropriate technology-based standard for lagoons would be requiring lagoon liners or elimination of the lagoon for an above-ground storage tank. The point of the permit is to require the use of best technology as a means to prevent and eliminate discharges to surface and ground water. Unfortunately, the special conditions do not do that.

Some of the other “special conditions” are simply not the best technology that is available and economically feasible. For example, for Solid Manure, Litter, and Feed Storage, Composting Facilities, Ecology requires:

Leachate and contaminated runoff from solid manure, litter, and feed storage areas, and composting facilities (e.g. manure drying) must be collected and stored with other liquid manure and process wastewater. If the storage area is covered (e.g. tarp, roof) clean water may be diverted away from the production area in accordance with permit condition S4.D.⁸⁰

Storage of solid manure and composting operations should not be allowed to occur on bare ground because that causes a potential discharge to waters of the state.⁸¹ Ecology has disregarded the science and information collected by the Washington State Department of Agriculture confirming that composting operations can leach pollutants into the groundwater. Composting and solid manure storage operations should be required to occur only on lined pads that collect the leachate. The fact that CAFOs are currently implementing this technology in the state of Washington makes it clear that such technology should be considered a TQBEL, BMP and AKART.

The permit fails to require best technology to ensure irrigation water management. Again, the permit instead includes a general narrative pollution prevention goal:

The Permittee must prevent the downward movement of nitrate by managing their irrigation water so that the amount of water applied from precipitation and irrigation does not exceed the water holding capacity in the top two feet of soil plus crop needs.⁸²

What is the technological standard that the CAFO must implement to ensure that the downward movement of nitrate is prevented? Some examples of what should be included as TQBELs, BMPs and AKART for irrigation management were provided in Conservation Organizations’ Comments on the Preliminary Draft of the CAFO Permit.⁸³

⁷⁹ *Id.*

⁸⁰ *Id.* at 14-15.

⁸¹ Conservation Organizations Comments on Preliminary Draft of CAFO Permit at 31-33.

⁸² Combined Permit at 27.

⁸³ Conservation Organizations’ Comments on Preliminary Draft of CAFO Permit at 41-43.

Soil moisture sensors are an affordable piece of technology that can and should be required to ensure that manure is not being over-applied. There are other BMPs that should be required to ensure proper irrigation management.⁸⁴

The standards for buffers and set-backs are similarly inadequate and not based upon science. Commenters hereby incorporate by reference all points made by the Swinomish Indian Community in their comments on this issue.⁸⁵ In addition to the detailed recommendations as to actual standards for buffers and setbacks contained in the Conservation Organization Comments on the Preliminary Draft of the Permit (p. 43-46), Commenters would like Ecology to require compliance with the attached BMP for buffers that is designed to protect water quality and has been created by an independent scientific advisor.⁸⁶ Commenters urge Ecology to strike the aforementioned narrative suggestions, and insert in its place language that requires the use of specific, best technologies as a means to prevent and eliminate discharges to waters of the state.

e. There Should Be A Clear, Enforceable Numeric Soil Standard For Nitrate

One of the most fundamental flaws with the permit is that it does not contain a clear, enforceable soil standard for nitrate. Ecology has backtracked significantly from what was contained in the permit's preliminary draft:

The Permittee must manage its land application fields such that end of season soil test results at the 3-foot depth (S5.C) do not exceed 15 ppm nitrate.⁸⁷

This standard is scientifically-based and provides the Permittee with clear guidance as to what to look for when doing the soil testing. It also creates a standard that is enforceable by both citizens and Ecology alike. The convoluted method contained in the draft permit is a complicated quagmire that allows a Permittee to apply manure in a fashion that leads to ground and surface water contamination. A numeric limit (or, at the very least a numeric range based upon science) for soil nitrate is imperative or else it will be impossible to ascertain whether the Permittee is following the annual field nutrient budget and whether the Permittee is violating state water quality standards. The permit states that “[d]uring land application the Permittee must not cause direct, indirect, or precipitation related discharge to surface waters,”⁸⁸ but contains no numeric limit by which to measure compliance with this discharge limit. Benchmarks are ineffective and impermissible when

⁸⁴ Email from Troy Peters to Jim Trull, etc. re: GWAC – IAWG (May 8, 2015) (identifying ideas for irrigation water management BMPs, including cost estimates) (Exhibit D).

⁸⁵ Swinomish Indian Community CAFO Permit Comments (Aug. 9, 2016).

⁸⁶ Best Management Practices: Riparian Areas & Buffers, contained in WELC, Agricultural Pollution in Puget Sound: Inspiration to Change Washington's Reliance on Voluntary Incentive Programs to Save Salmon (April 2016), at <http://pdfsr.com/pdf/agricultural-pollution-in-puget-sound-2> (last visited August 16, 2016).

⁸⁷ Preliminary Draft of the CAFO Permit at 18.

⁸⁸ Combined Permit at 19.

the Permittee is not monitoring the receiving water to ascertain whether there has been a discharge or whether the discharge exceeds state water quality standards.

In Washington, “[a]gencies issuing NPDES permits must impose limits on discharges as necessary to implement water quality standards set by state or federal statutes and regulations, regardless of technical practicability.”⁸⁹ “[S]tate agencies may not issue NPDES permits ‘[w]hen the conditions of the permit do not provide for compliance with the applicable requirements of CWA, or regulations promulgated under CWA; . . . [or w]hen the imposition of conditions cannot ensure compliance with the applicable water quality requirements of all affected States.’”⁹⁰ Ecology’s decision to abandon a numeric soil standard for nitrate violates the law.

Commenters support Ecology’s use of a Yearly Field Nutrient Budget that accounts for the nutrients in the soil based on sampling and analysis.⁹¹ However, Ecology’s use of benchmarks (S4.K) effectively allows CAFOs to over-apply manure to fields, without ever being in violation of the permit. Because the Permittee is not monitoring the receiving groundwater or surface water, it is impossible to ascertain when a Permittee violates a ground water or surface water quality standard. Without ground and surface water monitoring (which is illegal, as discussed below), a numeric soil nitrate standard is required in order to ascertain compliance with the no discharge standard. In other words, “the challenged permit condition allows discharges prohibited by law.”⁹² According to Ecology:

Soil nitrate values are a proven tool to determine plant-available nitrogen present in the soils as well as providing the effectiveness of manure management.⁹³

* * *

The soil nitrate threshold limits recommended in the literature are summarized in Table 7. These values are limits that researchers from 14 publications have advocated: that there is either enough nitrogen available to support a crop or that no additional nitrogen should be applied. *Recommended targets for fall soil nitrate values range from 5 to 24 ppm depending on the site-specific conditions. Recommended targets for spring soil nitrate values range from 16 to 30 ppm depending on the site-specific conditions.*⁹⁴

⁸⁹ *Puget Soundkeeper Alliance v. Pollution Control Hearings Bd.*, 189 Wn. App. 127, 137-38, 356 P.3d 753 (2015).

⁹⁰ *Id.* at 138.

⁹¹ Combined Permit at 18.

⁹² *Puget Soundkeeper Alliance*, 189 Wn. App. at 147.

⁹³ Ecology, Manure Literature Review, at 96.

⁹⁴ *Id.* at 97 (emphasis added).

Commenters urge Ecology to implement the recommendations of its own scientists and simply adopt the soil nitrate threshold limits contained in its own recent Manure Literature Review.⁹⁵ If a Permittee exceeds these soil nitrate limits, then that should constitute a permit violation, not a never-ending path of adaptive management.

There is no scientific basis for the Low, Medium, High and Very High categories Ecology has identified in Table 3 of the permit.⁹⁶ Where do these numbers come from? After reviewing scientific studies, Ecology scientists have recommended targets of fall soil nitrate values of 5-24 ppm and spring soil nitrate values of 16-30 ppm. However, the medium, high and very high categories all allow higher levels of nitrate values than those recommended by Ecology scientists. Indeed, one of the studies relied upon by Ecology in developing the permit contains numbers more in line with what Ecology scientists recommend. Specifically, an Oregon State University Extension Service publication identifies low risk as less than 10 ppm, medium risk as 10-20 ppm, high risk at 20-30 ppm and excessive at anything that exceeds 30 ppm.⁹⁷ Ecology’s numbers set forth in Table 3 in the permit are far less protective:

	Low	Medium	High	Very High
Pounds/Acre	<55	55-110	111-165	>165
PPM	15	15-30	31-45	45

In addition, Ecology states that, in most cases, the soil samples need only be taken at the two-foot depth, even though sampling at the three-foot depth is necessary to determine whether nitrate is getting *below* the root zone and is no longer capable of being used by the crops. Ecology does include testing at the three-foot depth, but only *after* the soil tests show that nitrate has been overapplied to the field, at which point it is too late to prevent the discharge to waters of the state. Without a clear and enforceable soil standard for nitrate, it is impossible to ascertain the extent to which the Permittee is discharging to waters of the state in violation of the no discharge standard that is required in the permit. That approach plainly violates state and federal law.⁹⁸

f. There Should Be A Clear, Enforceable Soil Standard For Phosphorus

Ecology requires a Permittee to keep records regarding the total phosphorus that is applied.⁹⁹ However, there is no clear limit on the amount of phosphorus that can be applied to fields under the Permittee’s control. This is a major omission. As Commenters stated in comments on the preliminary draft:

⁹⁵ *Id.* at 41 (Table 7).

⁹⁶ Combined Permit at 21 (Table 3).

⁹⁷ Marx, Hart & Stevens, Soil Test Interpretation Guide, OSU Extension Service (August 1999) at 2.

⁹⁸ *Puget Soundkeeper Alliance*, 189 Wn. App. at 137-38.

⁹⁹ Combined Permit at 35.

Not only must soil applications be limited by nitrogen, but they must also be limited based on agronomic rates of application of phosphorus. Plants generally don't need large amounts of phosphorus to grow. The Cow Palace, Bosma and DeReuyter facilities all overapplied manure such that phosphorus has built up far beyond agronomic needs.¹⁰⁰ Phosphorus levels are so high that groundwater is also being impacted.¹⁰¹ Applications of manure when soil phosphorus residual levels exceed 30 ppm should also be prohibited.¹⁰²

There is no question that phosphorus can and should be sampled. Ecology described a scientific study that recommended “that all plant nutrients can be sampled, including nitrogen, phosphorus and potassium.”¹⁰³ Ecology must include a soil standard for phosphorus.

g. There Should Be Special Protections For CAFOs Near Drinking Water Sources

The science is unambiguous that CAFO pollution constitutes a clear and present danger to Washington drinking water sources. According to a recent Ecology study:

Groundwater in several areas of the state has been contaminated by nitrates above the drinking water Maximum Contaminant Limit (MCL) of 10 mg/L. This is a problem for public health, and the costs of coping with this contamination are immense.¹⁰⁴

In Washington, “[g]roundwater is the drinking supply for around 60% of people” and “[t]his percentage is larger if you only count those who live outside of large cities like Seattle, where the drinking water is supplied from surface water.”¹⁰⁵

Ecology has done a number of studies confirming that the over-application of manure and leaking manure lagoons at CAFOs can lead to nitrate contamination.¹⁰⁶ Recently, Ecology has issued a significant report as part of its Nitrate Prioritization Project.¹⁰⁷ As part of this project, Ecology has “delineate[d] areas where high nitrates in

¹⁰⁰ *CARE, et al. v. Cow Palace, LLC, et al.*, (Expert Report of Byron Shaw) (Preliminary Comments Exhibit 15) at ¶¶ 10, 15, 36-38, 48, 75-78, 105, 111-113, 128, 139, 168-170, 209, 233.

¹⁰¹ *Id.*

¹⁰² Conservation Organization Comments on Preliminary Draft of CAFO Permit at 35.

¹⁰³ Ecology, Manure Literature Review at 78.

¹⁰⁴ Ecology, Washington Nitrate Prioritization Project, Ecology Publication No. 16-10-011 (May 2016) at 2.

¹⁰⁵ *Id.* at 3.

¹⁰⁶ *See, e.g.*, Ecology, Sumas-Blaine Aquifer Nitrate Contamination Summary, Ecology Publication No. 12-03-026 (rev. February 2013).

¹⁰⁷ Ecology, Washington Nitrate Prioritization Project, Ecology Publication No. 16-10-011 (May 2016).

groundwater occur.”¹⁰⁸ For those CAFOs located in these high nitrate areas, Ecology should include special permit conditions that are designed to ensure: (1) no further degradation of already-impaired waters; (2) implementation of additional best management practices designed to protect drinking water resources; and (3) provision of alternative sources of drinking water for those residents whose water source has been impacted.

VI. The Permit’s Adaptive Management Approach Allows Perpetual Non-Compliance

Ecology relies heavily upon the use of adaptive management in the draft CAFO Permit. Specifically, “[f]all soil sampling is required as the ‘report card’ for how well the field nutrient budget was followed during the year. It is a report back that triggers adaptive management (permit condition S4.K and L) on the part of the Permittee *to encourage better management practices.*”¹⁰⁹ However, adaptive management is not a tool to simply “encourage” better management practices. It can only be used to ensure that the Permittee complies with the conditions of the permit, including, most importantly, the no discharge requirement.

Ecology says that “reaching or exceeding a benchmark triggers an adaptive management action on the part of the Permittee.” However, there are two flaws with this approach in the context of the CAFO Permit. First, the science is clear that when soil nitrate limits exceed a certain threshold, it is likely that there is or has been a discharge to waters of the state because “there is either enough nitrogen available to support a crop or that no additional nitrogen should be applied.”¹¹⁰ Therefore, as discussed above, there should be a specific effluent limit for nitrates in soil, and not simply benchmarks. Second, the adaptive management approach is flawed because it is impossible for a Permittee to ever violate the terms of the Permit by applying manure in excess of agronomic rates. The Pollution Control Hearings Board has previously invalidated an adaptive monitoring regime on that ground:

We further find that the adaptive management approach is incomplete because it does not require implementation of triggered responses *nor does it address what happens when permittees continue to exceed benchmark levels after completing all three response levels.*¹¹¹

As the Permit is drafted, even if the Permittee has applied manure in excess of agronomic rates such that the soil nitrate levels regularly exceed 45 ppm, that Permittee would still not be in violation of the terms and conditions of the Permit. That is an improper use of adaptive management.

¹⁰⁸ *Id.* at vii.

¹⁰⁹ Draft CAFO Permit Fact Sheet at 50.

¹¹⁰ Ecology, Manure Literature Review at 97.

¹¹¹ *Puget Soundkeeper Alliance, et al. v. Ecology*, PCHB Nos. 05-150, 05-151, 06-034 & 06-040 (consolidated) (Findings of Fact, Conclusions of Law and Order) (January 26, 2007) at 3.

VII. The Permit Strangely Mandates The Export of Manure

It is well documented that the export and application of manure on farmlands in Washington state has contributed greatly to the ground and surface water contamination epidemic. One of the reasons this is so is because manure that is exported can be applied with essentially no regulatory oversight, a problem that was first raised by the Lummi Indian Nation:

On September 10, 2014, your Department of Ecology Director (Maia Bellon) hosted a meeting at the request of our Natural Resources Department Director (Merle Jefferson) and his key staff where they were joined by her key water quality staff, EPA Region 10 Administrator Dennis McLerran and his key staff, Rob Duff and Julie Horowitz from your office, and representatives from the Washington Department of Health and the Washington Department of Agriculture.

The meeting participants agreed that the re-closure of the Portage Bay shellfish beds makes it clear that there are systemic problems in the current environmental regulatory structure and that new tools and new approaches are needed to address manure management and associated water contamination. All of the meeting participants further agreed that the single action that would have the most benefit for preventing contamination of both surface water (fecal coliform) and ground water (nitrates) would be to change the existing state law concerning manure applications so that all land applicators of manure must be licensed and permitted. The provision could be modeled on the existing pesticide applicator license program administered by the Department of Agriculture and a similar manure applicator licensing program instituted in Maryland.¹¹²

In spite of this, Ecology imposes upon Permittees a *mandatory* duty to export manure:

The Permittee must export manure to unaffiliated parties when they determine through nutrient budgeting that the CAFO generates more nutrients than may be appropriately used by the Permittee's crops (permit conditions S4.H-L).¹¹³

This requirement is nothing short of absurd. A CAFO operator should not be able to escape responsibility for the manure that they produce simply by discarding and dumping it on someone else's land. If the "CAFO generates more nutrients than may be appropriately used by the Permittee's crops," they are legally obligated to arrange for the proper disposal of the manure as a solid waste.¹¹⁴ "Congress enacted RCRA to, in part,

¹¹² Letter from Lummi Indian Business Council to Governor Jay Inslee re: Portage Bay Tribal Shellfish Beds Closure Response – Support Needed (October 9, 2014) (Exhibit E).

¹¹³ Combined Permit at 28.

¹¹⁴ *CARE, et al. v. Cow Palace, LLC*, No. 13-CV-3016-TOR (E.D. WA.) (Order re: Cross Motions for Summary Judgment) (January 14, 2015).

ensure that waste that is unavoidably generated is ‘treated, stored, or disposed of so as to minimize the present and future threat to human health and the environment.’”¹¹⁵

Therefore, Ecology must be clear that if a Permittee “generates more nutrients than may be appropriately used by the Permittee’s crops,” it shall be found in violation of the terms of the permit and must arrange for the disposal of the excess manure as a solid waste in accordance with all applicable federal and state laws.

Commenters understand that many CAFOs do not have an adequate amount of acres under their control on which they can apply manure. If a Permittee does need to contract with another party to take the manure off-site, the contract should require that the person who accepts and applies the manure shall be responsible for applying the manure in a manner that complies with the requirements of the CAFO permit. Anything short of that would simply exacerbate the water pollution problem.

VIII. The Permit Contradicts The Recommendations Of Ecology Scientists And Authorizes Winter Application Of Manure

The permit contains several restrictions on when manure can be applied during the winter, but contradicts the recommendations of Ecology scientists by authorizing the land application of manure “after harvest or October 1 whichever comes first.”¹¹⁶ Specifically:

If the Permittee land applies manure, litter, process wastewater, or other sources of crop nutrients in the fall (after harvest or October 1 whichever comes first) the Permittee must have a fall soil test showing that the current soil nutrients will not provide the nutrients the crop needs before land application begins again in the spring.¹¹⁷

However, Ecology scientists have consistently stated that there is no evidence to suggest “that winter manure application can be conducted in a manner that is protective of both groundwater and surface water.”¹¹⁸ Indeed, Director Bellon has stated, “[w]e [Ecology] continue to be concerned about winter manure application.”¹¹⁹ Ecology needs to justify deviating from the recommendations of its own scientists that have recognized the science that “[t]he risk of fecal coliform bacteria runoff to surface waters increases when manure application occurs during high precipitation periods” and that “[l]ate season applications in areas of Washington with high winter precipitation are particularly risky from a leaching standpoint.”¹²⁰ Please implement the recommendations of your scientists on the winter application of manure issue:

¹¹⁵ *Id.* at 79 (quoting 42 U.S.C. § 6902(b)).

¹¹⁶ Combined Permit at 20.

¹¹⁷ *Id.*

¹¹⁸ Letter from Ecology Environmental Assessment Program/Groundwater Unit to WA State Conservation Commission (May 12, 2014) (Exhibit F).

¹¹⁹ Letter from Ecology Director Maia Bellon to Astor Boozer, NRCS re: Update of Field Office Technical Guide (FOTG) 590 for Nutrient Management (May 9, 2014) (Exhibit G).

¹²⁰ Ecology, Manure Literature Review at 29-32, 49

Nitrogen applied to land in the form of ammonium or organic nitrogen will convert to nitrate during the non-growing season and will leach out of the soils and migrate to the groundwater. Applying wastewater to the land during the non-growing season does not reliably protect groundwater (Ecology, 2004a).¹²¹

Ecology scientists have made it very clear:

Winter manure application has not been demonstrated in the literature to be protective of groundwater quality. Scientific literature is not evident to support the theory that nutrients can be stored in the soils during the winter or that manure land application during the non-growing season is protective of groundwater quality.¹²²

Ecology's decision to disregard the recommendations of its own experts will not be tolerated by a court of law. There is no science that supports a permit condition allowing the application of manure during the winter.

IX. The Draft Permit Authorizes Discharges From Lagoons Without Requiring AKART

According to Ecology, “[a]lthough out of sight, groundwater is a highly valuable natural resource for Washington’s citizens, economy, and environment. Throughout the state, groundwater provides a major source of water supply, sustains streamflows and wetland functions during biologically critical periods of the year, and helps to buffer the impact of short-term droughts.”¹²³ Ecology states that “[t]he state permit will conditionally authorize discharges to groundwater.”¹²⁴ “Any general permit issued by the department shall apply and insure compliance with:

- (1) Technology-based treatment requirements and standards reflecting all known, available, and reasonable methods of prevention, treatment, and control required under RCW 90.48.010, 90.48.520, 90.52.040 and 90.54.020 may be imposed through any or all of the following methods:
 - (a) Effluent limitations and standards promulgated pursuant to sections 301, 302, 306, and 307 of the FWPCA;
 - (b) Discharge standards contained in chapters 173-221 and 173-221A WAC;
 - (c) On a case-by-case basis under section 402 of the FWPCA; and/or

¹²¹ *Id.* at 53.

¹²² *Id.* at 98.

¹²³ Ecology, Predicted Impacts of Climate Change on Groundwater Resources in Washington State, Ecology Publication No. 16-03-006 (March 2016) at 7.

¹²⁴ Letter from Ecology re: Announcing a Draft Concentrated Animal Feeding Operation National Pollutant Discharge Elimination System and State Waste Discharge General Permit and a Draft Concentrated Animal Feeding Operation State Waste Discharge General Permit (June 15, 2016).

(d) Through the use of best management practices.¹²⁵

* * *

(3)(b) Meet any federal law or regulation other than the FWPCA or regulations thereunder;

(c) Implement any legally applicable requirements necessary to implement total maximum daily loads established pursuant to section 303(d) and incorporated in the continuing planning process approved under section 303(e) of the FWPCA and any regulations and guidelines issued pursuant thereto;

(d) Prevent or control pollutant discharges from plant site runoff, spillage or leaks, sludge or waste disposal, or materials handling or storage

* * *

(5) Requirements pursuant to other laws, including the state's Hazardous Waste Management Act (chapter 70.105 RCW), the Solid Waste Management—Reduction and Recycling Act (chapter 70.95 RCW), the Resource Conservation and Recovery Act of 1976 (Public Law 95.190), or any other applicable local ordinances, state or federal statute, to the extent that they pertain to the prevention or control of waste discharges into the waters of the state.¹²⁶

The draft permit violates each one of these provisions by authorizing CAFOs to discharge from leaking manure lagoons without requiring the installation of AKART and BMPs that are known to prevent the discharge. Specifically:

Ecology has determined that if the CAFO has a lagoon that does not have a double **geomembrane liner** with a leak detection system between the liner layers that it is discharging to groundwater.¹²⁷

The draft Permit authorizes CAFOs to discharge to groundwater because there are no requirements that lagoons be lined or replaced, even though there is technology that is known, reasonable and available to all CAFOs within Washington state. For example, three dairy CAFOs in the lower Yakima Valley have agreed to synthetically line their manure lagoons to eliminate the discharge to groundwater and to come into compliance with the Resource Conservation and Recovery Act.¹²⁸ California dairies are also using similar technology. As another alternative technology, some CAFOs are installing manure

¹²⁵ WAC 173-226-070.

¹²⁶ WAC 173-226-070.

¹²⁷ Ecology, Preliminary Draft of CAFO Permit at 5.

¹²⁸ See <http://charlietebbutt.com/cases.html> (Cow Palace, Bosma & DeRytter Consent Decrees w/ exhibits) (last visited August 12, 2016).

storage tanks to eliminate the use of manure lagoons entirely.¹²⁹ These technologies are not only known and reasonable, they are “available,” as lagoon upgrades and replacements can be funded by state and federal cost share programs, such as those run through the Natural Resources Conservation Service.¹³⁰ It is illegal, and unethical, for Ecology to authorize a discharge into the groundwater of this state, which “is the drinking water supply for around 60% of people who live in Washington state.”¹³¹

In spite of requiring Permittees to implement technology needed to eliminate the discharge of pollutants from manure lagoons, Ecology directs Permittees to provide a “one-time lagoon report.”¹³² This permit requirement does not comply with federal and state requirements. First, Ecology is already in possession of this information for the vast majority of CAFOs in the state of Washington.¹³³ Second, Ecology has already done lagoon assessments back in 2008 so it should be in possession of the information it needs:

With 490 dairies identified statewide by the Livestock Nutrient Management (LNM) Program of the Washington Department of Agriculture, other unpermitted lagoons may be improperly designed and constructed.

Ecology’s Dam Safety Office has the authority under RCW 90.03.350 and 4321A.064 to inspect and require permits for lagoons built with more than 10 acre-feet of storage capacity above ground. A lagoon holding 10 acre-feet of dairy waste would be equivalent to a football field, 8 feet deep.

Working in cooperation with Agriculture’s LNM Program, Ecology is conducting a statewide inventory of unpermitted dairy lagoons that are large enough to fall under Ecology’s jurisdiction. Unpermitted jurisdictional lagoons are also being identified through the use of aerial photographs now available for all areas of the state.

Ecology is asking dairy owners to voluntarily bring existing lagoons into compliance with dam safety regulations.¹³⁴

¹²⁹ See Whatcom County SEPA Determination of Nonsignificance, File SEP2016-00047 (June 21, 2016) (Exhibit H) (reviewing proposal for a 24-foot tall manure storage tank with a diameter of 151 feet).

¹³⁰ *Id.* at 2 (“This project will be funded by NRCS.”). See also WELC, Agricultural Pollution in Puget Sound: Inspiration to Change Washington’s Reliance on Voluntary Incentive Programs to Save Salmon (April 2016) (describing the voluntary incentive programs available to agricultural operations to prevent water pollution), at <http://pdfsr.com/pdf/agricultural-pollution-in-puget-sound-2> (last visited August 16, 2016).

¹³¹ Ecology, Washington Nitrate Prioritization Project, Ecology Publication No. 16-10-011 (May 2016) at 3.

¹³² Combined Permit at 37.

¹³³ Conservation Organization Comments on Preliminary Draft of CAFO Permit at 55-56.

¹³⁴ Ecology, Draft Ecology Requires Permits, Dam Safety Reviews for High Risk Dairy Lagoons (April 2008).

Finally, while the information required to be submitted in the one-time lagoon report is useful to determine how much pollution is being discharged from the lagoon, the fact that the discharge is occurring is not in question. Liability under the Clean Water Act is strict, and there is no “de minimis” exception.¹³⁵ In other words, for purposes of the permit, it does not matter how much pollution is being discharged. Rather, the fact that the discharge is occurring is sufficient to trigger the requirement that AKART be required to eliminate the discharge. There is technology available to prevent the discharge of pollutants into waters of the state from manure lagoons and Ecology is legally obligated to ensure that Permittees utilize that technology.

X. The Permit Illegally Lacks Adequate Monitoring

Ecology has said that “[m]onitoring provides an assessment of manure management practices.”¹³⁶ The plain language of the Clean Water Act requires that permits contain monitoring requirements that are adequate to evaluate compliance with all applicable standards. Specifically:

[To] determine[] whether any person is in violation of any such effluent limitation, or other limitation, prohibition or effluent standard, pre-treatment standard, or standard of performance . . .

[T]he Administrator shall require the owner or operator of any point source to (i) establish and maintain such records, (ii) make such reports, (iii) install, use, and maintain such monitoring equipment or methods (including where appropriate, biological monitoring methods) (iv) sample such effluents (in accordance with such methods at such locations, at such intervals, in in such manner as the Administrator shall prescribe), and (v) provide such other information as he may reasonably require . . .¹³⁷

The Clean Water Act “*requires* every NPDES permittee to monitor its discharges into the navigable waters of the United States in a manner sufficient to determine whether it is in compliance with the relevant NPDES permit.”¹³⁸ EPA CWA regulations require that “each NPDES permit shall include” monitoring requirements “[t]o assure compliance with permit limitations,” including “[t]he mass (or other measurement specified in the permit) for each pollutant limited in the permit; [t]he volume of effluent discharged from each outfall; or [o]ther measurements as appropriate.”¹³⁹ In addition, under state law:

¹³⁵ *Sierra Club v. Union Oil of California*, 813 F.2d 1480, 1490 (9th Cir. 1987), *vacated on other grounds by* 485 U.S. 931 (1988).

¹³⁶ Ecology, Manure Literature Review at 99.

¹³⁷ 33 U.S.C. § 1318(a); *see also* 33 U.S.C. § 1342 (requiring NPDES permits contain conditions to “assure compliance” with effluent limitations, water quality standards and other requirements of the Clean Water Act).

¹³⁸ *Natural Res. Defense Council v. Los Angeles Cnty. Dep’t of Pub. Works*, 725 F.3d 1194, 1207 (9th Cir. 2013) (emphasis in original).

¹³⁹ 40 C.F.R. § 122.44(i).

Any discharge authorized by a general permit may be subject to such monitoring requirements as may be reasonably required by the department, including the installation, use, and maintenance of monitoring equipment or methods (including, where appropriate, biological monitoring methods). These monitoring requirements would normally include but are not limited to:

- (i) Flow (in gallons per day or other appropriate units);
- (ii) All pollutants on which limitations have been placed pursuant to WAC 173-226-070;
- (iii) Pollutants (either directly or indirectly through the use of accepted correlation coefficients or equivalent measurements) that are subject to reduction or elimination under the terms and conditions of the permit;
- (iv) Pollutants that the department finds could have a significant impact on the quality of waters and sediments of the state; and
- (v) Pollutants specified by the administrator, in regulations issued pursuant to the FWPCA, as subject to monitoring.¹⁴⁰

Monitoring shall be conducted “at intervals sufficiently frequent to yield data that reasonably characterizes the nature of the discharge of the monitored effluent flow or pollutant.”¹⁴¹ Monitoring of the receiving water, including surface or ground water, “may be required by the department, to verify compliance with net discharge limitations or removal requirements, to verify that proper waste treatment or control practices are being maintained, or to determine the effects of the discharge on the waters and sediments of the state.”¹⁴²

The Fact Sheet contains the wholly unsupported statement that “permitted CAFOs do not usually have a continuous discharge to monitor.”¹⁴³ This contradicts Ecology’s previous finding that all manure lagoons leak and if unlined, are discharging to groundwater.¹⁴⁴ In addition, the statement contradicts the overwhelming scientific evidence and examples that when CAFOs apply manure in excess of agronomic rates, there is a discharge to waters of the state. Thus far, through the settlements with CARE and EPA, nearly 100 homes in the Lower Yakima Valley have been provided with reverse osmosis systems to treat drinking water contaminated by the dairy defendants in the Cow Palace case.

The omission of a permit condition requiring water quality monitoring fails to comply with legislative intent as reflected in the statutory directive to Ecology to “develop and maintain a standard protocol for water quality monitoring of the *waters of the state* within the vicinity of dairies and CAFOs. The protocol shall include sampling methods

¹⁴⁰ WAC 173-226-090(1)(a).

¹⁴¹ WAC 173-226-090(1)(b).

¹⁴² WAC 173-226-090(1)(e).

¹⁴³ Draft CAFO Permit Fact Sheet at 60.

¹⁴⁴ Preliminary Draft of CAFO Permit at 5.

and procedures and identify the water quality constituents to be monitored.”¹⁴⁵ This law makes it clear that the Legislature intended for Ecology to require monitoring as part of the WA CAFO Permit for all “waters of the state,” including surface and groundwater. In 2006, Ecology developed a protocol for surface water monitoring around dairies, but not for groundwater monitoring. This is in spite of Ecology’s acknowledgment that:

Surface water contamination can also affect groundwater quality. Increases in groundwater nitrate concentrations occur with infiltration of water on dairy and CAFO operations. Groundwater monitoring would assist in isolating the direction and source of contaminants and provide guidance on protecting drinking water sources.¹⁴⁶

The draft permit fails to comport with Ecology’s own findings and advice. In the 2006 protocol, Ecology stated that:

Monitoring should consist of two components: BMP implementation monitoring (verify the BMPs are installed and working properly), and water quality monitoring (evaluation for changes in water quality following BMP placement). These two monitoring activities establish a relationship between BMP effectiveness and water quality changes.¹⁴⁷

In the draft Permit, however, Ecology has only required very minimal monitoring to ensure the effectiveness of BMPs. The water quality-monitoring component is completely absent. This constitutes a violation of Ecology’s mandatory statutory duties as trustee of the state’s water resources.

a. Ecology’s Own Scientists Recommend Groundwater Monitoring

Ecology has recognized that “[a]nimal feeding operations (AFOs) that apply manure to crops as part of their treatment system can adversely impact groundwater.”¹⁴⁸ For the last twelve years, conservation organizations, public health experts and residents who have had their drinking water contaminated by CAFOs have implored Ecology to require groundwater monitoring as part of the Washington CAFO Permit.¹⁴⁹ Over the course of those twelve years, the science supporting groundwater monitoring has only mounted. Now, it would be arbitrary, unethical, and contrary to the recommendations of its own experts for Ecology to develop a permit without groundwater monitoring:

¹⁴⁵ RCW 90.64.180 (emphasis added).

¹⁴⁶ Ecology, Preparing Elements of a Quality Assurance Monitoring Plan to Conduct Water Quality Monitoring Near Dairies & CAFOs, Ecology Publication No. 06-03-015 (March 2006) at 4.

¹⁴⁷ *Id.*

¹⁴⁸ Ecology, Manure Literature Review at 103.

¹⁴⁹ *See, e.g.*, Conservation Organization Comments on Preliminary Draft of CAFO Permit at 49-53.

The majority of researchers agree that groundwater monitoring is the only way to conclusively assess impacts of nutrient management practices on groundwater quality. Monitoring other media, such as soils, can indicate whether manure management practices need to be adjusted, but it cannot conclusively determine the extent of impacts to groundwater quality.¹⁵⁰

“Groundwater monitoring is the most reliable and direct means of measuring impacts to groundwater from manure applications.”¹⁵¹ As such, it should be included as a mandatory condition in the Washington CAFO Permit.

The costs of implementing a groundwater monitoring program are far outweighed by the “immense”¹⁵² costs of cleaning up contaminated groundwater and accessing alternative sources of drinking water. According to Ecology, “[n]ot only is contaminated groundwater a public health issue, treatment is also very costly to the public water supply systems and individual households who must deal with contamination on their own.”¹⁵³ Indeed,

Any of the options to cope with nitrate contamination are costly. They include drilling a new well, deepening a well, treating the water with reverse osmosis or ion exchange, blending the water, or obtaining water from another water system.

Costs can run into the millions of dollars.¹⁵⁴

These costs should not be placed on the public, but rather on the industry that receives the financial benefit of land applying manure as part of their normal course of business.

b. Soil Sampling Cannot Be Used In Lieu Of Groundwater Monitoring

While it is important to require soil sampling as a permit condition, the science is clear that soil sampling is not a substitute for groundwater monitoring nor does it fulfill Ecology’s legal responsibilities to protect waters of the state. Ecology has acknowledged that “[t]he literature summarized in this report indicates that it is difficult to accurately predict impacts to groundwater quality on soil nitrate samples. There is a general consensus among groundwater scientists that the best way to determine impacts to groundwater quality is to collect and analyze groundwater samples.”¹⁵⁵ In another study,

¹⁵⁰ Ecology, Manure Literature Review at 100.

¹⁵¹ *Id.* at 103; Ecology, Nitrate Prioritization Project, Ecology Publication No. 16-10-011 (May 2016) at 47 (“Groundwater monitoring data is the best indicator of risk . . .”).

¹⁵² Ecology, Nitrate Prioritization Project, Ecology Publication No. 16-10-011 (May 2016) at 1 (groundwater contaminated with nitrates is “a problem for public health, and the costs of coping with this contamination are immense.”).

¹⁵³ *Id.* at vii.

¹⁵⁴ *Id.* at 7.

¹⁵⁵ Ecology, Manure Literature Review at 101.

Ecology has found that soil nitrate tests “won’t reveal much information about nitrate loss below the root zone.”¹⁵⁶ Specifically:

Studies have documented the variability of soil nitrate with depth and with time, indicating that soil nitrate values are only indicative of the conditions at that time and location. Researchers clarify the limitations of soil nitrate data, stating that soil nitrate results cannot be used to extrapolate conditions in other locations, at other depths, or in groundwater. *Soil nitrate can indicate when excessive nitrate is present in the soils and poses a risk to leach to groundwater, but it cannot provide assurance that groundwater has been protected.*

* * *

Soil nitrate sampling only provides a snapshot of what is present in the soils at the time the soil sample was collected. It cannot provide information on what has already moved through the soils to groundwater, what has moved below the sampling depth, or how much organic nitrogen will be converted to nitrate throughout the year and leach to groundwater. *Soil samples cannot provide assurance that groundwater has been protected.*¹⁵⁷

Ecology has also found that “[i]n excessively drained soils with irrigation or high precipitation, soil nitrate testing is not likely to be informative, either as an indicator of overloading, or as an indicator of risk of groundwater contamination, due to rapid removal of potential nitrate contamination from the root zone.”¹⁵⁸ Based on this information, it is unfathomable that this permit allows the discharge of pollutants into the ground water of this state, 60% of which serves as the drinking water source for Washingtonians, without mandating groundwater monitoring. Ecology has a fundamental, constitutional responsibility to protect human health AND the environment:

The legislature recognizes and declares it to be the policy of this state, that it is a fundamental and inalienable right of the people of the state of Washington to live in a healthful and pleasant environment and to benefit from the proper development and use of its natural resources. The legislature further recognizes that as the population of our state grows, the need to provide for our increasing industrial, agricultural, residential, social, recreational, economic and other needs will place an increasing responsibility on all segments of our society to plan, coordinate, restore and regulate the utilization of our natural resources in a manner that will protect and conserve our clean air, our pure and abundant waters, and the natural beauty of the state.¹⁵⁹

¹⁵⁶ Ecology, Nitrate Prioritization Project at 52.

¹⁵⁷ Ecology, Manure Literature Review at 101 (emphasis added).

¹⁵⁸ Ecology, Nitrate Prioritization Project at 49.

¹⁵⁹ RCW 43.21A.010.

Ecology is charged with the “supervision of public waters within the state.”¹⁶⁰ Given the documented levels of drinking water contaminated due to nitrate in the state of Washington and the fact that CAFOs have been identified as one source of that contamination, it is unlawful for Ecology to shirk its legal duties and decline to mandate groundwater monitoring as part of the permit.

c. Other CAFO NPDES Permits Require Groundwater Monitoring

Groundwater monitoring should also be considered AKART because it is actively being done at CAFO facilities in Washington and in other states. In Washington, groundwater monitoring is required as a condition of the state discharge permit for Wilcox Farms, a chicken CAFO, with a history of groundwater contamination in Roy, Washington.¹⁶¹ More recently, the Oregon Department of Environmental Quality has released a draft CAFO NPDES permit for Lost Valley Ranch, a large dairy CAFO proposed in Hermiston Oregon and the permit requires groundwater monitoring.¹⁶² The fact that other facilities are currently required to monitor the groundwater illustrates that groundwater monitoring should be considered AKART and should be required as a mandatory condition of the CAFO permit.

d. The Permit Lacks Adequate Surface Water Monitoring

The draft permit contains no requirements for monitoring surface waters around CAFO facilities. This omission makes it impossible to ascertain whether the CAFO is complying with the no discharge permit limit and is illegal. Significantly, Ecology has already developed, but ignored, a surface water monitoring protocol for CAFOs which includes a requirement to “[m]onitor water quality using upstream/downstream site selection in order to isolate pollution impacts from a specific dairy or CAFO activity.”¹⁶³ A surface water monitoring permit condition is especially important in those areas of the state where CAFOs have contribute to the closure of shellfish beds.¹⁶⁴

¹⁶⁰ RCW 43.21A.064(1).

¹⁶¹ Conservation Organization Comments on Preliminary Draft of CAFO Permit at 51, Exh. 32.

¹⁶² Oregon Dep’t of Env’tl. Quality & Oregon Dep’t of Ag., Oregon Confined Animal Feeding Operation NPDES Individual Permit, Public Notice Version (Draft, 2016) (Exhibit J) at 14 (“Groundwater monitoring shall be in accordance with the agency-approved Groundwater Monitoring Plan (for plan requirement see S5.B.)”); *id.* at 16-18.

¹⁶³ Ecology, Preparing Elements of a Quality Assurance Monitoring Plan to Conduct Water Quality Monitoring Near Dairies & CAFOs, Ecology Publication No. 06-03-015 (March 2006) at 10, 17 (“Each site should have at least an upstream and downstream monitoring location.”).

¹⁶⁴ *See, e.g.*, WELC, Agricultural Pollution in Puget Sound: Inspiration to Change Washington’s Reliance on Voluntary Incentive Programs to Save Salmon (April 2016) at 12-13.

XI. The Permit Fails To Include Conditions To Mitigate The Effects Of Climate Change.

a. The Permit Should Contain A Soil Standard For Carbon Sequestration

The Draft Permit fails to contain any conditions designed to increase and protect soil carbon sequestration, a critical part of any meaningful attempt to reduce greenhouse gas emissions.¹⁶⁵ According to the US Department of Agriculture:

Atmospheric concentrations of carbon dioxide can be lowered either by reducing emissions or by taking carbon dioxide out of the atmosphere and storing in terrestrial, oceanic, or freshwater aquatic ecosystems. A sink is defined as a process or an activity that removes greenhouse gas from the atmosphere. The long-term conversion of grassland and forestland to cropland (and grazing lands) has resulted in historic losses of soil carbon worldwide but there is a major potential for increasing soil carbon through restoration of degraded soils and widespread adoption of soil conservation practices.¹⁶⁶

Through both organic matter and inorganic compounds, “soil is a large reservoir of carbon.”¹⁶⁷ Soil organic matter stores about three times more carbon than forests and other vegetation.¹⁶⁸ Every 1% increase in average soil organic carbon content has the potential to reduce CO₂ in the atmosphere by up to 2%.¹⁶⁹ Methods for improving soil carbon sequestration include the implementation of compost operations,¹⁷⁰ diversifying planting practices on farms, and adding biochar to soils.¹⁷¹

In addition, agricultural soils in Washington store an estimated 1.4 MMtCO₂e per year¹⁷² but have the potential to store much more with management aimed at improving sequestration.¹⁷³ The agricultural sector could improve soil carbon storage capacity through sustainable farming practices such as efficient fertilizer use and improved manure management.¹⁷⁴ Ecology should include soil protection guidelines and encourage and

¹⁶⁵ See WELC & Our Children Trust’s Comments on Ecology’s Proposed Clean Air Rule (submitted July 22, 2016) (Exhibit I).

¹⁶⁶ What is Soil Carbon Sequestration?, at <http://www.fao.org/nr/land/sustainable-land-management/soil-carbon-sequestration/en/> (last visited August 15, 2016).

¹⁶⁷ WASHINGTON STATE DEPARTMENT OF ECOLOGY, FOCUS ON SOIL CARBON SEQUESTRATION 1 (2013), <https://fortress.wa.gov/ecy/publications/publications/1307031.pdf>.

¹⁶⁸ *Id.*

¹⁶⁹ *Id.*

¹⁷⁰ What is Carbon Farming?, MARIN CARBON PROJECT, <http://www.marincarbonproject.org/what-is-carbon-farming> (last visited July 15, 2016).

¹⁷¹ WASHINGTON STATE DEPARTMENT OF ECOLOGY, at 2-3; Crowther Decl. at 5.

¹⁷² CENTER FOR CLIMATE STRATEGIES, at ES-4.

¹⁷³ WASHINGTON STATE DEPARTMENT OF ECOLOGY, PUB. NO. 15-07-005, SOIL ORGANIC CARBON STORAGE (SEQUESTRATION) PRINCIPLES AND MANAGEMENT vii (2015), <https://fortress.wa.gov/ecy/publications/publications/1507005.pdf>.

¹⁷⁴ *Sources of Greenhouse Gas Emissions*, UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, <https://www3.epa.gov/climatechange/ghgemissions/sources/agriculture.html> (last visited July 18, 2016).

incorporate such methods. As part of this Draft Permit, Ecology can mandate manure management practices that are designed to enhance the state's sequestration potential. In its current form, the draft permit does nothing to do that, but measures can and should be incorporated into the final version of the permit. It is perfectly appropriate for Ecology to include conditions in the permit facilitating soil carbon sequestration because the science shows that it "lead[s] to improved water quality in groundwater and surface waters," as one of its many benefits.¹⁷⁵ By failing to mandate soil carbon sequestration and sustainable agriculture practices, the permit ignores processes pivotal to climate recovery in Washington. Ecology should take advantage of this opportunity to mitigate against the effects of climate change.

b. The Permit Fails To Acknowledge Climate Change Impacts On Groundwater

Ecology has recently issued a study investigating how climate change will impact the state's groundwater resources in which it found:

Global-scale climate changes are unfolding at very rapid rates in comparison to historical patterns, and are expected to have far-reaching consequences for Washington's water resources. As an integral component of the hydrologic cycle, groundwater will not be immune to these changes. It is important to understand that future groundwater responses to climate change will be superimposed on top of widespread and alarming problems with overdraft and groundwater quality that already exist in Washington. Climate change has the potential to magnify or accelerate these longstanding stresses. Concurrent with a predicted rise in demand for additional groundwater supply (driven by human population growth and diminishing summer streamflows), climate change is likely to greatly compound the challenge of sustainably managing state groundwater resources.¹⁷⁶

In light of this reality, the permit should not be grant CAFOs permission to discharge pollutants into the precious groundwater resources of this state. Groundwater contaminated with nitrates essentially takes that water off the table for human use and consumption. It is imperative that the permit require installation of AKART to eliminate the discharge of pollutants into groundwater, and also require groundwater monitoring to ensure that ground water quality is protected and not degraded.

¹⁷⁵ Ontl, et al., Soil Carbon Storage, at <http://www.nature.com/scitable/knowledge/library/soil-carbon-storage-84223790> (last visited August 15, 2016).

¹⁷⁶ Ecology, Predicted Impacts of Climate Change on Groundwater Resources of Washington State, Ecology Publication No. 16-03-006 (March 2016) at 7.

c. The Permit Should Contain Special Conditions For CAFOs That Discharge Into Puget Sound And Contribute To Ocean Acidification

CAFOs are a source of nutrient pollution that is contributing to ocean acidification in Washington's waters.¹⁷⁷ As such, the permit should require those CAFOs that discharge into the waters that feed Puget Sound to implement special conditions designed to mitigate against the effects of ocean acidification.

XII. The Permit Lacks Conditions To Protect Local Communities

In the development of the Draft Permit, Ecology neglected to address the serious environmental justice issues at play. Commenters support, and hereby incorporate by reference, the comments submitted by One America on the Draft Permit and repeat their request that Ecology perform an environmental justice analysis of communities affected by CAFO pollution throughout the state. Such an analysis is especially important in light of Ecology's illogical, and illegal, decision to authorize a discharge of pollutants into groundwater, which serves as the sole drinking water source for a number of communities in Washington state.

The highest concentration of CAFOs in Washington is in the Lower Yakima Valley, a majority-Latino area that is adjacent to the Yakama Indian Reservation. Latinos and Tribal members are disproportionately harmed by nitrate contamination in drinking water and the resulting health problems (let alone the application of pesticides, emissions of air pollutants, and numerous other environmental hazards highly concentrated in the Lower Valley). This is not an accident: across the United States, CAFOs are disproportionately located near Black, Native American, and Latino communities.¹⁷⁸ Ecology, as the permit-writing team admitted, conducted no engagement with Latino residents and individuals who work at CAFOs, the individuals who are highly impacted by the rampant CAFO pollution. The record is clear that Ecology met with dairy industry representatives numerous times, and reached out to environmental organizations, but did not communicate with Latinos in the Lower Yakima Valley in any meaningful way. This is especially frustrating since the permit development process took longer than five years. Ecology did not provide any materials in Spanish during the public comment period until Ellicott Dandy at One America submitted an inquiry citing civil rights concerns to the Director of Ecology. To this day, five days from the close of the public comment period,

¹⁷⁷ See, e.g., Conservation Organization Comments on Preliminary Draft of CAFO Permit at 15-17.

¹⁷⁸ CAFOs and Environmental Justice: The Case of North Carolina, Environmental Health Perspectives (June 1, 2013), at <http://ehp.niehs.nih.gov/121-a182/> (last visited August 15, 2016); Steve Wing & Susanne Wolf, *Intensive Livestock Operations, Health, and Quality of Life Among Eastern North Carolina Residents*, 108 *Env'tl. Health Perspectives* 233, 233 (2000) ("Residents in the vicinity of the hog operation reported increased occurrences of headaches, runny nose, sore throat, excessive coughing, diarrhea, and burning eyes as compared to residents of the community with no intensive livestock operations."); Leah Schinasi et al., *Air Pollution, Lung Function, and Physical Symptoms in Communities Near Concentrated Animal Feeding Operations*, 22 *Epidemiology* 208, 208 (2011).

not a single document in Spanish is available on the public comment website for the draft CAFO Permit.

Under Title VI of the Civil Rights Act of 1964, “[n]o person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.”¹⁷⁹ Ecology receives a significant amount of federal money to operate its permitting program, among others, and thus is prohibited from issuing permits that disproportionately impact individuals on the basis of race.¹⁸⁰ By authorizing discharges to groundwater without requiring implementation of AKART or water quality monitoring, the Draft Permit fails to protect communities of color who work and reside on and around CAFOs in the state of Washington. Ecology has no compelling justification for this disproportionate adverse impact. To remedy the Title VI violation, Ecology must analyze the racial and ethnic impact of the permitting program and adopt measures that protect communities of color from CAFO pollution.

XIII. The Economic Impact Analysis Omits Significant Information & Overstates The Costs Of Complying With The Permit

Ecology is required to prepare an economic impact analysis on all draft general permits “to reduce the economic impact of the general permit on small businesses.”¹⁸¹ The economic impact analysis must include, among other things:

- (b) The estimated costs of compliance, based upon existing data for facilities intended to be covered under the general permit. Costs shall include, consistent with subsection (2) of this section the following:
 - (i) The costs associated with (a) of this subsection; and
 - (ii) The costs of equipment, supplies, labor, and any increased administrative costs;
- (c) A comparison, to the greatest extent possible, of the cost of compliance for small businesses with the cost of compliance for the largest ten percent of the facilities intended to be covered under the general permit. The economic impact analysis shall use one or more of the following as a basis for comparing costs:
 - (i) Cost per employee;
 - (ii) Cost per hour of labor;
 - (iii) Cost per one hundred dollars of sales.
- (4) The following compliance costs associated with a general permit shall not be included in the economic impact analysis:

¹⁷⁹ 42 U.S.C. § 2000d.

¹⁸⁰ See, e.g., Ecology, Federal Puget Sound Grant Program, at http://www.ecy.wa.gov/puget_sound/grants_fed.html (last visited August 15, 2016); *Ass’n of Mex.-Am. Educ. v. California*, 195 F.3d 465, 474-75 (9th Cir. 1999) (“[T]he definition of ‘program or activity’ provided by Congress means that if any part of a listed entity receives federal funds, the entire entity is covered by Title VI.”).

¹⁸¹ WAC 173-226-120(2).

- (a) The costs necessary to comply with chapters 173-200, 173-201, 173-204, and 173-224 WAC; and
- (b) The costs associated with requirements of the general permit which result from conformity or compliance, or both, with federal law or regulations.¹⁸²

Ecology failed to consider a number of costs associated with CAFO pollution as well as federal and state cost share dollars to support its conclusion that “[i]t is likely that the costs of complying with the permit are disproportional.”¹⁸³ It is nonsensical for Ecology to exclude “benefits (of the permit) or environmental impacts.”¹⁸⁴ This approach deviates from the agency’s prior practice of taking into account the environmental benefits of proposed regulation.¹⁸⁵ Notably, in the economic analysis there is no description of the reasons for the proposed permit: namely the massive amount of water pollution from CAFOs that is degrading the waters of the state.

The costs of CAFO pollution that should be taken into account include:

(1) The costs of shellfish bed closures due to fecal coliform contamination:

- For example, “[t]he Lummi Nation estimates its shellfish harvesters lost \$8 million in revenue from 1996 to 2006, when 180 acres of Portage Bay shellfish beds were closed.”¹⁸⁶

(2) The costs of the loss of shellfish due to ocean acidification:

- For example, Governor Gregoire, in Executive Order 12-07 stated: “Washington is the country’s top provider of farmed oysters, clams, and mussels. Our shellfish growers employ directly and indirectly more than 3,200 people around the state and provide an annual total economic contribution of \$270 million statewide. The increasing levels of acidification in Washington’s marine waters pose serious and immediate threats to our shellfish resources, and the revenue and jobs supported by the shellfish industry.”¹⁸⁷

¹⁸² WAC 173-226-120(3)(b).

¹⁸³ Ecology, Economic Impact Analysis: Concentrated Animal Feeding Operation General Permit, Ecology Publication No. 16-10-018 (July 2016) at iii.

¹⁸⁴ *Id.* at 1.

¹⁸⁵ *See, e.g.*, Ecology, Small Business Economic Impact Statement, Chapter 173-442 WAC Clean Air Rule, Chapter 173-441 Reporting of Emissions of Greenhouse Gases, Ecology Publication No. 16-02-009 (June 2016) at 1 (stating that the Small Business Economic Impact Statement “is intended to be read with the associate Cost-Benefit and Least Burdensome Alternative Analysis (Ecology publication no. 16-02-008)” which contains significant analysis of the environmental benefits associated with Ecology’s proposed Clean Air Rule.”).

¹⁸⁶ WELC, Agricultural Pollution in Puget Sound: Inspiration to Change Washington’s Reliance on Voluntary Incentive Programs to Save Salmon (April 2016) at 8.

¹⁸⁷ Executive Order No. 12-07 (Nov. 27, 2012), at http://www.ecy.wa.gov/water/marine/oa/MRAC_ExecutiveOrder_12-07.pdf (last visited July 20, 2016).

(3) The costs associated with cleaning up contaminated groundwater. For example, according to Ecology:

Royal City had to remove an existing well due to high nitrates and then construct a new well at a cost of nearly \$1.5 million dollars (Washington State Dept. of Health, 2012b).

Several public water supply systems in northern Whatcom County are under WDOH compliance orders for exceeding the nitrate health limit of 10 mg/L. A new source of drinking water is hard to come by due to the limited nature of the aquifer and water rights issues. Strategies to reduce nitrate consumption include installing expensive treatment systems, providing bottled water to laborers, and investigating ways to transport clean water to the area (Cornerstone Management, Inc., 2010).

These kinds of costs are repeated across the state for public water systems where nitrate levels are too high. The table in Appendix A shows several projects funded by the Drinking Water Source Revolving Fund to mitigate groundwater nitrate contamination (Washington State Dept. of Health, 2012b).

For the projects shown in Table A-1, costs range from \$107,000 to \$6 million per project with total project costs of approximately 12.2 million dollars. Many operating and capital costs incurred are not reflected in loan amounts granted by the state – they are paid for by local rate payers. A statewide estimate of costs incurred due to nitrate contamination of groundwater would be useful.¹⁸⁸

In doing its economic analysis, Ecology improperly relies upon anecdotal data from a representative of the Washington State Dairy Federation, a trade association, for the proposition that “[t]he number of samples required is directly related to the size and landscape of the area being sampled. Currently, an average of 12.7 fields per farm are sampled.”¹⁸⁹ Ecology has an obligation to obtain unbiased information on which to base its cost assessment. Ecology vastly overestimates the number of hours that would be necessary to do the lagoon inspection. As discussed above, most lagoons have already been inspected. There is no basis for Ecology’s assumption that a lagoon inspection would take 40 hours of work. Finally, there is no acknowledgment or analysis of the fact that CAFOs can receive significant amounts of federal and state dollars to comply with the requirements of the CAFO Permit.¹⁹⁰ For these reasons, Ecology’s Economic Impact Analysis is flawed.

¹⁸⁸ Ecology, Nitrate Prioritization Project at 7.

¹⁸⁹ Ecology, Economic Impact Analysis: Concentrated Animal Feeding Operation General Permit, Ecology Publication No. 16-10-018 (July 2016) at 16 n.10.

¹⁹⁰ See, e.g., Exhibit H; WELC, Agricultural Pollution in Puget Sound: Inspiration to Change Washington’s Reliance on Voluntary Incentive Programs to Save Salmon (April, 2016), at <http://pdfsr.com/pdf/agricultural-pollution-in-puget-sound-2> (last visited August 16, 2016).

XIV. Miscellaneous Comments

a. Ecology Should Require Monitoring for Hormones & Pharmaceuticals

Given the prevalence with which CAFOs give (and often, over-use) hormones and pharmaceuticals to the animals confined at CAFOs, we request that you adopt the Washington Board of Health's recommendation that Ecology add pharmaceuticals and hormones to the sample parameters.¹⁹¹ Ecology has previously recognized that CAFOs discharge pharmaceuticals into waters of the state:

Another impact on receiving water originating from CAFOs is pharmaceutical discharges. Herd health is maintained through use of pharmaceuticals. Production of dairy products and meat is highly dependent on healthy animals. Illness in herds is often detected through product analysis at which time appropriate pharmaceutical application is selected.¹⁹²

Similarly, in the EPA study of contaminated drinking water in the Lower Yakima Valley, the presence of veterinary pharmaceuticals in some of the downgradient wells was considered evidence corroborating the conclusion that the dairies were a major source of the drinking water contamination.¹⁹³ Ecology has recognized that “[r]esearchers have also been successful in analyzing other contaminants as indicators of impacts from manure applications. These include *veterinarian pharmaceuticals, antibiotics, steroid hormones, calcium, chloride, magnesium, sodium, boron, bromide, and argon.*”¹⁹⁴ Therefore, in the CAFO Permit, Ecology should require monitoring for pharmaceuticals and hormones in both the surface and ground water.

b. Compliance With The State Environmental Policy Act

Ecology should require that facilities seeking to be covered under the Permit comply with the State Environmental Policy Act (SEPA). Under the Biosolids General Permit, “[t]he act of applying for coverage under this permit triggers a requirement for

¹⁹¹ Letter from Board of Health to Ecology re: Comments on Preliminary Draft of CAFO Permit (October 2, 2016), *at* <http://www.ecy.wa.gov/programs/wq/permits/cafo/docs/commentsOct2015/sboh.pdf> (last visited August 12, 2016). Notably, Ecology has a statutory duty to consult with the state Board of Health “insofar as necessary to assure that those agencies concerned with the preservation of life and health may integrate their efforts to the fullest extent possible and endorse policies in common.” RCW 43.21A.140.

¹⁹² Ecology, Preparing Elements of a Quality Assurance Monitoring Plan to Conduct Water Quality Monitoring Near Dairies & CAFOs, Ecology Publication No. 06-03-015 (March 2006) at 4.

¹⁹³ EPA, Relation Between Nitrate in Water Wells and Potential Sources in the Lower Yakima Valley, Washington, EPA-910-R-12-003 (September 2012).

¹⁹⁴ Ecology, Manure Literature Review at 101 (emphasis added).

review under the State Environmental Policy Act (SEPA) Chapter 197-11 WAC.”¹⁹⁵
Coverage under the WA CAFO Permit should similarly trigger SEPA review.

c. The Permit Lacks Conditions For Transporting Manure

There are no requirements in the permit concerning the transportation of manure, which is a known pollution problem that should be addressed as part of the permit. These requirements are especially necessary in a permit that purports to require “export” of manure. At a bare minimum, Commenters request that Ecology incorporate into S4.O of the CAFO Permit the requirements for transporting biosolids, including implementation of a spill prevention/response plan that applies not only to the facility and all entities that transport manure generated at the facility.

d. The Fact Sheet Omits Reference To The *CARE, et al. v. Cow Palace, et al.* Litigation

The Fact Sheet fails to reference the most significant CAFO litigation in the state of Washington: *CARE, et al. v. Cow Palace, LLC, et al.* The Fact Sheet does cite to the decision in its bibliography, but neglects to include a description of the case in the section on “Summary of Major Case Law.”¹⁹⁶ This is a major omission that needs to be corrected because the *Cow Palace* decision contains important legal and scientific precedent regarding how CAFOs are discharging to waters of the state in the normal course of business. In addition, the Consent Decrees resolving the case should be utilized by Ecology because they establish a number of BMPs that should be required in the permit as AKART and technology-based effluent limitations.

XV. Conclusion

After decades of opportunities to properly protect public health and the environment, and despite the insurmountable evidence that medium and large CAFOs are causing serious contamination of the state’s ground and surface water resources, Ecology has drafted a permit that does not address the problem. Ecology’s own scientists, along with the larger scientific community, agree that the terms of the proposed permit will do little to nothing to stop the flow of CAFO contaminants into the waters of this state. The draft permit not only fails to meet minimum legal standards under state and federal law, but it fails to address the most basic underlying practices that have been proven to cause the contamination discussed throughout the comments presented here and in other correspondence with the agency. Out of desperation, the people of this state ask what it will take to turn the tide of political willful ignorance into responsible stewardship of our precious water resources. It is time for Ecology to require measures that will show respect for the people and the environment it is charged with protecting. We look forward to continuing to work with you to develop a permit that is based on science, complies with all applicable legal requirements, and the protects the people who have been put directly in harm's way.

¹⁹⁵ Ecology, General Permit for Biosolids Management (2015) at 2.2.

¹⁹⁶ Draft CAFO Permit Fact Sheet at 8.

Sincerely,

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Cc: Conservation organizations & individuals
Enc: Exhibits A-J

TABLE OF EXHIBITS

- EXHIBIT A: House Bill 2840 (2016).
- EXHIBIT B: Letter from WA Legislators to Ecology Director Bellon (June 1, 2016).
- EXHIBIT C: Email from Virginia Prest to Jeremy Friemund, et al. re: WSDA issues two penalties to dairy producers in the Sumas Watershed, Whatcom County (July 21, 2016).
- EXHIBIT D: Email from Troy Peters to Jim Trull, etc. re: GWAC – IAWG (May 8, 2015).
- EXHIBIT E: Letter from Lummi Indian Business Council to Governor Jay Inslee re: Portage Bay Tribal Shellfish Beds Closure Response – Support Needed (October 9, 2014).
- EXHIBIT F: Letter from Ecology Environmental Assessment Program/Groundwater Unit to WA State Conservation Commission (May 12, 2014).
- EXHIBIT G: Letter from Ecology Director Maia Bellon to Astor Boozer, NRCS re: Update of Field Office Technical Guide (FOTG) 590 for Nutrient Management (May 9, 2014).
- EXHIBIT H: Whatcom County SEPA Determination of Nonsignificance, File SEP2016-00047 (June 21, 2016).
- EXHIBIT I: WELC & Our Children Trust’s Comments on Ecology’s Proposed Clean Air Rule (submitted July 22, 2016).
- EXHIBIT J: Oregon Dep’t of Env’tl. Quality & Oregon Dep’t of Ag., Oregon Confined Animal Feeding Operation NPDES Individual Permit, Public Notice Version (Draft, 2016).