SIERRA CLUB
WASHINGTON STATE

July 11, 2021

Thank you for the opportunity to comment on the Washington State Department of Ecology's Statewide General Permit on Biosolids Management. These comments are being submitted by the Washington State Chapter of Sierra Club. The Washington State Chapter of the Sierra Club is a 501(c)(4) non-profit organization with over 100,000 members and supporters in Washington State and over 3.8 million nationally. Headquartered in Seattle, the Washington State Chapter members and supporters live throughout the state of Washington. Many Sierra Club members and supporters are directly affected by the land spreading of sewage solids/biosolids whether delivered by truckloads to neighboring farms, forests and recreational sites, or purchased from commercial vendors for gardens.

We strongly recommend the following regarding the Draft General Statewide Permit:

- Individual permits should be required, rather than general permits
- Applicants' adherence should be science-based rather than Best Available Management
- Expand the list of contaminants to be analyzed
- The permit should include regulations pertaining to PFAS
- The permit should include expanded buffers for surface and subsurface water bodies
- The permit should strengthen oversight and enforcement
- The permit should address forest dumping
- The permit should strengthen signage regulations
- The permit should require truth in packaging labels for compost and fertilizer
- The permit should incorporate the HEAL Act
- The permit should address climate change in relation to changing soil qualities

When an activity potentially threatens human health or the environment, the proponent of the activity, rather than the public, should bear the burden of proof as to the harmlessness of the activity. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing measures to prevent environmental degradation.

Ecology must write permits which protect the natural environment and human health. The Washington State Chapter of the Sierra Club strongly suggests that the Department of Ecology (Ecology) prepare a Draft Biosolids Permit Plan which consolidates the work of staff working on the various elements relevant to the permit. This would include staff working independently on sewage, nutrients, PFAS, CAFOs, and CECs. Whether all these parts currently have guidance or regulations should not hinder this collaboration since these are all being reviewed by the agency and will eventually have Ecology positions. It is important to set recipients of permits on the right path now.

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We see many parallels between the Draft Statewide General Permit on Biosolids with that of the June 29, 2021 Washington State Appellate Court CAFO decision. To wit, this decision makes clear the need for site specific nitrate plans; for permit conditions pertaining to existing manure lagoons, compost areas, and high-risk fields; for stronger groundwater monitoring; for a requirement that farmers monitor water quality; an acknowledgement of climate change impacts; and for individual site pollution-prevention plans. The Appellate Court judges opined that current (CAFO) permits violated state and federal laws by failing to control the discharge of excess nutrients, bacteria and other pollutants, and that permits should include enforceable limits set at levels appropriate to protect public health.

We were pleased to see the July 2021 Report, *CECs and Wastewater Treatment*, Publication 20-10-06. The Department of Ecology admitted to the existence and wide breadth of Chemicals of Emerging Concerns (CECs) in wastewater plants. And though Ecology only analyzed four contaminants in the waste and compared their potential removal levels from newer treatment technologies, we are glad to see Ecology invested in this work. This information on CEC's should be incorporated into the Draft Biosolids Permits.

Based on a 2009 USEPA report measuring dozens of contaminants, including hazardous wastes, in sewage sludge, including from a Washington State Wastewater Treatment Plant, Ecology should expand the list of contaminants that municipalities and haulers must analyze to include those analyzed by EPA.

One CEC that should be on the list is PFAS. PFAS is now a primary chemical of concern with Congress, EPA and Ecology. Ecology staff is well along in its PFAS work and should supply permit language measuring influent, sewage sludge/solids and effluent for this "forever chemical."

A recent Sierra Club study, "Sludge in the Garden" tested nine commercial compost products used by home gardeners, including one produced in Washington State. These commercial composts are made with sewage sludge. All nine, marketed as "eco" or natural, contained PFAS. Eight of the nine products contained PFAS at a level higher than that allowed by the states of Maine, which currently have the strictest safeguards for PFAS contamination of agricultural lands.

Ecology must ensure more oversight and require more enforcement to protect the soils, waters and public health. One way to ensure public protection is through truth in labeling. This sewage-solid-laden compost and fertilizer, sold to the public loose as tonnage or packaged, whether pure or mixed with other wastes, should inform the public the product contains municipal and/or industrial toxic wastes. A brief list of these contaminants and pathogens should be noted, with information about who to contact for more details.

Another method to ensure oversight is to require individual permits, rather than general permits. As well, the Washington State Department of Health (DOH) should be, by regulation, more engaged in this permitting process that affects our water and our health.

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Regarding the current Draft Biosolids General Permit, we find many areas insufficient. As well, regulations on the reuse of sewage solids as a "*beneficial use*" are old, and the referenced Best Management Practices do not equate to science-based data on which practices should be grounded.

The Draft Permit must strengthen language to better protect the surface and subsurface water bodies. There should be longer and deeper distances to buffer the waters from receiving biosolids, whether from runoff, wind, rain, ice and snow or injection into the soils.

Ecology must do better at informing the neighbors of land spreading events, as they have nothing to gain and much to lose. This is in line with the 2021 HEAL ACT.

Finally, we would like to see the Draft Permit require newer technologies be employed by Waste Water Treatment Plants that will detect viral levels in the influent, the solids and the effluent to ensure that pathogens are dead, not dormant, and will not be spread on land or passed to surface water bodies via the effluent. We recommend that you review "*Capacity of existing wastewater treatment plants to treat SARS-CoV-2. A review.*"

This concludes the summary comments. More detailed comments will be submitted in a separate file.

Sincerely,

Darlene Schanfald

Darlene Schanfald

Chairperson, Toxics Committee, Washington State Chapter of the Sierra Club

SIERRA CLUB
WASHINGTON STATE

July 10, 2021

The attached detailed comments are submitted on behalf of the Washington State Chapter of Sierra Club. This file contains comments that support our summary document.

Please confirm receipt of this document. We hope you will create a Response to Comments document in order that those that comment understand your decisions.

Regards,

Darlene Schanfald

Chairperson, Toxics Committee, Washington State Chapter of the Sierra Club

POSITIONS

It is Sierra Club's position that individual, not general, permits should be developed. The Revised Code of Washington (RCW) 70A.226.005* establishing municipal sewage sludge as a beneficial commodity was written in 1992.

*1992 c 174§1. Formerly RCW 70.95J.005

(1)(e) of the RCW states: Municipal sewage sludge can contain metals and microorganisms that, under certain circumstances, may pose a risk to public health. University and government studies over the following 30 years establishes that it does pose a risk to public health.

"Beneficial Use" ignores the thousands of toxins, hazardous wastes, and dormant pathogens able to reestablish.

What is Ecology's justification for not requiring individual permits? Individual permits would result in more oversight by both Ecology and the public.

What is Ecology's justification for not including language on effluent as land-based fertilizer and aquifer enhancement? The use of fertilizer for these purposes will be looked to as supplemental to land-based sewage solids as drought increases, and to minimize the amount released into open-water bodies.

Ecology is aware of the presence of PFAS/PFOS and related chemicals in sludge. Some Ecology staff members are working with the Department of Health to finalize guidance for handling these

chemicals. Because of their use in non-leaking food containers, cooking surfaces, outdoor wear, fire-fighting foam, and flame-retardant materials, PFAS chemicals has been found in most Washingtonians that have been tested for it, and is eliminated via toilets to the wastewater processing plants. Industry also sends its PFAS-laden wastes to municipal processing plants. This "forever-chemical" class is now found not only in Class B and "Exceptional Quality" sludge, but in commercial composts and fertilizers. https://www.sierraclub.org/toxics/pfas/pfas-sludge

Continuation of this waste for land spreading will allow continue permeation of this chemical into soils, air, ground and surface water bodies, grazing animals and edible crops. PFAS can ruin a farmer's land, resulting in lost economics for the farmer and the community. A case in point is the citizens' class action lawsuit against paper mills that polluted their properties with PFAS-laden waste, devaluing their land, exposing them to harm, and costing them to remediate the soils on their properties. https://www.natlawreview.com/article/pfas-paper-mill-lawsuit-adds-additional-companies

At some point we can expect that insurance companies will refuse to ensure farmers who take sewage wastes, particularly untested for PFAS or found in PFAS. In the published article of February 8, 2021, by Gregory Capps and Robert Walsh on insurance coverage, their concluding statement is *Consistent with its nickname, the "forever chemical" is posed to become a source of claims for years to come. Insurers should prepare now by developing a plan for dealing with these claims under multiple lines of coverage.* http://www.jdsupra.com/legalnews/the-abcs-of-pfas-what-you-need-to-know-8584037

The foundation for our position also rests on the following:

1. EPA states that the report identified 18 pier-reviewed articles referencing 116 new chemicals that occurred in biosolids.

The study, *Survey of organic wastewater contaminants in biosolids ["biosolids" is an EPA designation for "treated sewage sludge"] destined for land application* examined nine different biosolid products, produced by municipal wastewater processing plants in seven different states, finding 87 different chemicals, with fifty-five chemicals found in one product alone.

https://www.jdsupra.com/legalnews/u-s-environmental-protection-agency-1383484/

2. In 2009, EPA published the *Targeted National Sewage Sludge Survey*. The survey focused on 74 processing plants in 35 states that treated more one million gallons per day. It concluded that all sewage sludge contains toxic and hazardous materials.
https://www.epa.gov/sites/production/files/2018-11/documents/tnsss-sampling-anaylsis-tech-report.pdf

3. In 2018, EPA's Office of Inspector General (OIG) published its audit of the agency's "Biosolids" Program and found that *the EPA was unable to assess the impact of hundreds of unregulated pollutants in land-applied "biosolids" on human health and the environment.* To date, the EPA has identified 352 pollutants in biosolids, out of an unknown and incalculable total that frustrates any meaningful risk assessments; 61 of these pollutants have been categorized as hazardous by other federal program. These pollutants currently are not considered for further regulation because the agency lacks the data and tools necessary to assess the health and environmental risks.

https://www.epa.gov/sites/production/files/201811/documents/_epaoig_20181115-19-p-0002.pdf

4. On April 8, 2019, the OIG issued a management alert informing the US EPA that its Toxic Release Inventory data pertaining to releases of hazardous substances from publicly owned wastewater processing plants are inaccurate. As a result, the public and researchers are not receiving complete and timely information about environmental conditions affecting human health.

https://www.epa.gov/office-inspector-general/report-management-alert-certain-toxic-release-inventory-data-disclosed

5. Studies report the uptake of sewage contaminants in edible plants. Microplastics accumulate on pores in seed capsule and delay germination and root growth.
https://www.sciencedirect.com/science/article/pii/S0045653519306095

6. The ubiquity of anthropogenic toxic marine pollution raises concerns about how the ingestion of anthropogenic debris by marine animals may impact human health.
https://www.nature.com/articles/srep14340#ref38

7. There is runoff effecting algae blooms, even from "Class AA" biosolids.
http://www.alrn.org/news/2021-06-02/state-tightens-rules-for-sewage-sludge

8. Material that is spread on land becomes non point pollution into water bodies.
https://www.miamiherald.com/opinion/op-ed/article236381288.html

9. The June 2021 report, *State of the Salish Sea* states: "Part of that loading comes from sewage treatment plants, shipyards, municipalities, and a multitude of commercial/industrial operations that have the legal right to discharge waste into the Salish Sea through permitting processes like the NPDES program (National Pollutant Discharge Elimination System) that was established by the Clean Water Act in the United States. Added to these permitted discharges is the massive load of chemicals and bacterial pollutants that enter the Salish Sea with stormwater runoff from roadways, lawns, farms, and parking lots.

Under the *Contaminants* Section, the author spells out the legacy and contaminants of emerging concern and recommends other forms of treatment be developed to better handle the wastes and runoff.
https://cedar.wwu.edu/cgi/viewcontent.cgi%3Farticle=1000%26context=salish_pubs

SECTION COMMENTS

1.1.5 Local Health Jurisdiction Involvement. How often do you authorize a local jurisdictional health authority to assist in implementation and administration of permits?

1.1.6 Role of EPA: Though you work cooperatively with the USEPA, that agency has not updated its list of contaminants since the program was initiated in 1992, even after its own research report in 2009, *Targeted National Sewage Sludge Survey*. (See above)

1.2.3 Active Biosolids Management Section: *You are subject to the Active Biosolids Management Section (4) of this permit if: Bullet 5: You treat a mixture of biosolids and septage to meet Class A or B pathogen reduction.* Please verify that the listed facilities are correctly listed as Active or as Baseline.

Bullet7: WAC 173-308-310(1)(a) exempts active biosolids management facilities from permitting non-exceptional quality biosolids, for further treatment. Is this correct? Rationale? The language is confusing.

RCW 173-308-310(11) PUBLIC ACCESS TO INFORMATION. Ecology can withhold, but EPA can release information (11(b). Is this correct?

2.12. Duty to Mitigate: This short section is good, but rarely followed. How will this change?

2.1.8.1 [Notifying] Interested Parties. How will Ecology ensure this? In the past, interested parties were not notified. We want to see an expansion of the notification process so that the signage is readable from a distance, is placed in several public access points, including for walkers, and is more broadly advertised beyond posting signs. Notification should include newspaper legals and advertisements.

For facilities located near rivers and streams that support anadromous fisheries, the permits should be published in tribal newspapers. For facilities located in ethnic communities, public hearings should be advertised in languages used by significant population subgroups. Consider radio and television advertising in lieu of print media. Explain what is in biosolids.

2.1.9 Public Hearings. Public hearings should be required. Otherwise, Ecology will not be able to gauge the level of public interest, especially in communities new to land spreading.

2.1.10 Final Approval of Coverage. Response to comments should be required. If staff does not understand a question or comment, the commenter should be contacted for clarification.

2.4.1 What facilities are transporting non-EQ sewage wastes out-of-state? For transparency, this information should be listed.

2.4.2 Which facilities accept "biosolids" from federal governments, tribes, or from out-of-state? For transparency, this information should be listed.

2.17.1 Annual Reports, Are Class A facilities reporting annually, or is this a new requirement? What is the difference between the reports of Class A and Class B facilities?

3.4 and 4.4. Requirements for Sampling, Analysis, and Process Monitoring:
These sections for septage and biosolids are good. Yet with the current state of Ecology's oversight, a land-spreading corporation can pollute a site with nitrates for over 20 years and regulators seem to look the other way. For example, this occurred when the reputable firm, Aspect Consulting, found nitrate concentrations in groundwater over 100 feet below the surface above statewide drinking standards. The testing requirements and the oversight was extremely lax before and after application. This is true, too, when material listed as hazardous or dangerous waste can be mixed with biosolids and pollute the air, soil and groundwater for decades.

3.4.1 Representative Sampling [Septage]: What is a sufficient number of samples? Are the samples analyzed separately, or combined before analyzing?

3.4.2 and 4.4.2: *Soil sampling and analysis plans must conform to cooperative extension guidelines or generally accepted guidance or be prepared by a soil scientist, agronomist, crop adviser, or other certified or licensed professional.*

This requirement is so general that it is not enforceable. There should be a listing of accepted guidelines.

3.4.5 and 4.4.5 Point of Compliance say: *The point of compliance for a sample is the date on which the sample is taken, not the date on which results are subsequently reported. It is a violation of this permit to use or distribute biosolids that fail to meet applicable standards.*

This is not a correct definition of Point of Compliance. Point of Compliance is not a date. A correct definition would read something like:

Point of compliance means the geographic location at which the concentration of the chemical of concern is to be at or below the risk-based corrective action standard determined to be protective of public health and the environment.

3.6.1. Site Specific Land Application Plans and 4.5.1. Site Specific Land Application Plans
These septage and biosolids land-spreading applications sections lead to Appendix B, *Minimum Content for a Site-Specific Land Application Plan.* The sludge applicators have either not provided this critical information to Ecology (or neighbors) or Ecology has not checked on the completeness or accuracy of the information provided.

(j) *The location of any wells located on or within one-quarter mile (402 meters) of the site that are listed in public records or otherwise known to the applicant, whether for domestic, irrigation, or other purposes.* This information was not provided, but it was easily accessible through Thurston County records.

(l) *The presence and extent of any threatened or endangered species or related critical habitat.* Once again, this section of the permit provided to us was blank, but a search through Thurston County records revealed at least two species.

(m) *The location of any critical areas on site, as required to be identified under chapter 36.70A RCW in the county's growth management plan.* **This section is critically important.** As an example, the site-specific permit **should** have revealed that part of the site proposed in Thurston County was over a Critical Aquifer Recharge Area, but it did not. Given that every septage or biosolids-spreading site in Lewis and Mason counties has contaminated the groundwater below, further land-spreading of either of these substances should not be allowed over a Critical Aquifer Recharge area. The new five year general permit should address this deficiency.

(10) If the seasonal groundwater is three feet (0.91 meters) or less below the surface, a management plan should be included that describes how the groundwater will be protected. For example, limiting applications to the time of year when groundwater has receded to more than three feet (.91meters) below the surface. Employees who spread the septage on winter days should know where those areas are located. Ecology officials have allowed an employee to spread septage across the site in the middle of winter for another year before being required to build a lagoon for winter septage deliveries. These types of decisions betray the public's trust, considering that portions of the site's groundwater had already been found to be contaminated for decades. Instead, perhaps a five-year moratorium on the land spreading of septage would have been a better choice.

(11) *A description of how access to the site will be restricted (e.g. signs posted around the site or other approved method of access restriction.* Only a handful of such signs around large acreages of septage and biosolids spreading sites is typical. There should be more! (See comment under 2.1.8.1)

In addition, at one site in Mason County, septage haulers were allowed to deposit their loads with no paperwork required and no advance notification. A local urban sewage treatment plant had this policy for a short time, as well. Nighttime recreational dumpers brought in loads of septage so toxic and corrosive that the plant needed to be shut down to allow the bacteria to regrow.

Section 3.6.3 Soil Testing Required: This does not specify testing for phosphorous. It should. When biosolids are applied next to rivers, as they are in Yakima County, there is a risk of phosphorous runoff into a body of water with consequent eutrophication. This was addressed in the recent CAFO decision:

> E*xcess phosphorous in soil is problematic due to the potential detrimental impact to surface water. Like nitrate, an overabundance of phosphorous in a waterbody also contributes to eutrophication. In addition, when enough phosphorous is present, cyanobacteria, a type of algae, can out-compete other algae and cause blooms that produce liver, nerve, or skin toxins. These toxins are a significant public health threat that can cause sickness in both humans and animals*. https://www.courts.wa.gov/opinions/pdf/D2 52952-1-II Published Opinion.pdf

Section 3.6.4 Application Rates should address phosphorous needs of the crop as well as nitrogen.

***3.6.*5 Pollutants and 4.5** "Requirement for Non-Exceptional Quality Biosolids Applied to the Land: There does not seem to be any requirement yet in this draft permit to test for PFAS compounds (despite the insistence from top Ecology officials that such testing is not feasible, other states like Michigan perform it), pesticides, herbicides, PBDE's, PCB's, PAH's, pharmaceuticals, microplastics or any of the other hundreds of toxic substances found in almost every load of sewage sludge. This lack of a testing requirement before septage, sludge or biosolids are spread on the land alone makes this draft plan unacceptable.

3.8.1 Crop Harvest Waiting Periods. Table S1: Restrictions

How are harvest times decided? Is there testing for root, stem, edible parts uptake of any contaminants?

3.8.2 Public Access Restriction. A font size should be specified. The size for easy observance can vary depending on distance. Signage should be easily visible to public passers-by whether on foot or by vehicle. Same for Section 4.2 Notification.

3.8.3 Buffers. This allows Ecology to create exceptions to the rule, and gives Ecology the power to make special deals with no citizen oversight. We strongly suggest removing this exception.

4.2.1 Who Must Provide Public Notice. An Active Biosolids Management Plan exempts providing public notice if: exceptional quality (EQ) or if relying on EQ from beneficial use (BUF). Why not? This is still hazardous material and has the same impacts as land spreading Class B solids. We strongly suggest removing these exceptions.

4.4.1 Representative Sampling of biosolids or soil. What is a sufficient number of solids and soil samples? Are the samples analyzed separately, or are the samples mixed before analyzing so that they are "averaged"?

4.4.3. Frequency of Process Monitoring. Monitoring should include the crop's roots, stems, leaves, edible parts of the crops, as well as once applied to grazing areas – plants and soil.

4.5.3 Soil Testing Required. There is no protocol for soil sampling. Many fields are non-homogeneous with high and low areas and different soil types in the same field. In order to obtain

useful soil samples, there must be guidelines for where to sample, how deep to sample, and how many samples to take. There should be testing for phosphorous as well as nitrogen. Testing for nitrogen should be for nitrate, ammonia and total kjeldahl nitrogen (TKN).

4.5.9.1 Crop Harvest Waiting Periods. Table B3. We have the same questions as posed under 3.8.1.

4.5.9.2 Site Posting Requirements for Class B Biosolids: Table B4 If there is a public comment opportunity, include it on the posting with all the pertinent information.

4.5.9.3. Buffers: The distance from surface waters is defined as 33 feet. The permit language does not state where the measurements will be taken. The edges of rivers and streams fluctuate throughout the year. Is the point of measurement the high-water mark? Biosolids are applied near surface waters that flood every year.

The permit does not address differences in soil porosity and varying distances for mixing zones in which ground and surface waters interact. It is likely that many mixing zones (hyporheic zones) extend beyond 33 feet from the edges of large rivers.

Thirty-three (33) feet is inadequate to prevent leaching of heavy metals, nutrients and toxic chemicals into rivers that support fisheries.

4.6.1 Labeling Requirements for Exceptional Quality Biosolids

Bullet 3: "encourages proper use." There should be a stronger word than "encourages."

Bullet 5: In addition to the requirement of adding to the label that the product contains or is derived from biosolids, which is a good rule, "biosolids" should be defined along with a warning of other contaminants and pathogens that could be in the product.

Appendix B - Minimum Content for a Site-Specific Land Application Plan [SSLAP]

(1) (c) concentrations of pollutants in the biosolids (if known) Is this referring to only the eight or nine heavy metals believed as "beneficial use"?

The receiver should be made aware of the long list of pollutants, including PFAS. Sampling for PFAS must precede allowing the waste to change hands.

Appendix C – Delegation of Signature Authority.

This may be the appropriate section, or there could be a separate section, about who holds liability for ruined land where sewage wastes are spread.

IV. Neighboring Lands Concerns.

The legislature declares that a program shall be established to . . . ensure that municipal sewage sludge . . . is managed in a manner that minimizes risk to public health and the environment. RCW 70.95J.005(2). *Biosolids must not be applied or allowed to run onto non-permitted areas. . . Properly designed surface and groundwater buffers protect water quality off-site. . . When designing property buffers, your objective will be to reduce any nuisance to neighbors and the public.* Ecology Biosolids Management Guidelines, Publ. No. 93-80, p. 4-21, -22. *Facilities and sites where biosolids are applied to the land must comply with other applicable federal, state and local laws, regulations, and ordinances . . .* WAC 173-308-030(6). *The intentional deposit of microscopic particles could give rise to action for trespass as well of claim of nuisance.* Bradley v. American Smelting, 104 Wash.2d 677 (1985) Alexander-Barrett-Comments-on-FMF-Rosman-SSLAP-10-31-16-FINAL.pdf http://protectmillcanyon.org/

The draft permit does not address insurance, bonding, liability, and compensation when a spill occurs. In 2015 a LOOP truck spilled 30,000 pounds of biosolids into Swauk Creek near Blewitt Pass. These things will continue to happen. There should be provisions to ensure that the responsible party, and not the taxpayers, returns the natural environment to as normal as possible, and that there is adequate supervision of the restoration.

FORESTS

Application of sewage sludge/biosolids to forestland are inadequately addressed in this permit. By failing to list restrictions on application to forest land, the permit gives implicit permission to apply biosolids to frequently fragile ecosystems in dangerous ways. Deficiencies in the permit include, but are not limited to:

- The only suggested guidelines that address application to forests are over 20 years old.
- It does not require the forest ranking system described in *Biosolids Management Guidelines for Washington State* by Cogger, Sullivan, Henry & Dorsey.
- It does not state whether septage can be applied to forestland.
- It does not recognize that plants in higher elevations frequently prefer low nitrogen soils; are harmed by reactive nitrogen in the ambient air.
- It does not address the application of high pH sewage sludge/biosolids to soils with a naturally low pH.
- It fails to recognize the fact that sewage sludge/biosolids may irreversibly change the composition of forest soils.
- It does not recognize the wide range of agronomic rates for trees.
- It does not address mixed stands that contain red alder.
- It provides no guidelines for identifying and protecting endangered species during spray application of sewage sludge/biosolids.
- It does not specify how soil testing will be performed in forests.
- It does not address forested areas where the soil depth is one foot or less.
- It fails to account for the nature of snow melt and runoff.
- It fails to limit application in areas with slopes greater than 10%.

All permits for application of sewage sludge/biosolids to forested areas should be individual permits with clear restrictions that prioritize preservation of this public resource.

BIOSOLIDS AS FERTILIZER

If biosolids are marketed as soil amendments and fertilizer, then the application of biosolids should meet the standards that are in place for manure management. (See Ecology's National Pollutant Discharge Elimination System (NPDES) permit for Concentrated Animal Feeding Operations (CAFOs).)

Permitting for biosolids should:

- Address stormwater runoff and emergency plans for once in 25-year-storm events.
- Prohibit application of biosolids to the land when there is no crop growing.
- Require spring soil sampling to a depth of at least three feet prior to biosolids application, depending on the soil porosity.

- Require soil testing to a depth of at least 3 feet each fall at the end of harvest on land that received biosolids applications. Develop a protocol to reduce future biosolids and fertilizer application if nitrate levels in the fall sampling exceed 15 parts per million (ppm).
- Require composting and other treatment of sewage sludge and septage to take place on a hardened surface with > 95% compaction.
- Require groundwater monitoring when beneficial use facilities are located on land with well-drained soils.
- There should be no land application of biosolids to fields with saturated soil.
- Applicators should estimate the amount of nitrogen lost to volatilization.

ECOLOGY DISCRETIONS

There are sections in the permit that give Ecology the discretion to rewrite and go against the permit, apparently whenever the agency wishes.

Page 1, Line 17: *Unless modified by this permit or an approval of coverage under this permit, the rules in Chapter 173-308 WAC are applicable.*

Page 22, Line 20: *On a case-by-case basis, Ecology may impose requirements that are in addition to or more stringent than the requirements in this permit.*

Page 31, Sections 3.8.3 and 4.5.9.3 qualify the requirements in the tables ** Unless a different buffer is approved or required by Ecology ** Unless approved by Ecology.* This gives Ecology permission to approve unusual buffers, to approve application of septage on wetlands, public contact sites, on frozen or snow-covered ground.

Page 35, Line 22: *For facilities with surface impoundments characterizing biosolids under section 2.5.1, the number of samples is determined based on the estimated quantity of solids in the impoundment at the time of sampling, or as otherwise approved by Ecology.*

Page 39, Table B3: Ecology can approve a modified waiting period.

Page 39, Section 4.5.9.2*: Public access must be restricted following the application of Class B biosolids. Minimally, you must maintain posted informational signs during the time site access is restricted, in accordance with the requirements in Table B4. Exceptions to these requirements must be approved in writing by Ecology.*

QUESTIONS

- How does Ecology know that manufactured inerts, as well as plastics, will not impact soil health and/or end up in crops?
- Ecology has been aware of per- and polyfluoroalkyl substances (PFAS) in biosolids since at least 2008. Why has Ecology failed to require testing for PFAS in biosolids that are land applied?
- How does Ecology address the presence of pharmaceuticals, pesticides and other chemicals that likely change the biota on land where biosolids are applied?

ESHB 5141 - The Healthy Environment for All Act (HEAL) (5) (c) relies on "evidence Based" – systematic review of available data…; loss or impairment to ecosystem. The Act and Ecology's plans must be activated in 2023.

How will the sewage waste regulations, that permit the spreading of pollutants that impair the ecosystem and public health, be folded in to the agency's implementation plan? Is it acceptable for people in populous areas to export their sewage sludge to rural communities where people are poorly equipped to question the impact on public health and the environment?

These issues must be addressed.

GENERAL COMMENTS

- A list of Acronyms should precede the Facility List on Page 11 of the FACT SHEET.
- Page 1, First Sentence: There is no Chapter 70A.225 RCW. The statute is Chapter 70A.226 RCW.
- Page 5, Fourth line correction:

  Section (4) of this permit applies to facilities with active biosolids management programs, but not those ~~than~~ <u>that</u> manage only septage (1.2.2 above).

- Page 6, Figure 1, Second Step correction:

  Existing Baseline facilities without active programs are automatically covered on the effective date of the general permit. To confirm the <u>permit</u>, consult the Facility List provided by Ecology.

- Page 6, Figure 1, Fifth Step says:

  Existing facilities with active programs must submit a complete permit application within 90 days of permit issuance.

  This cannot be correct. Ecology should not issue a permit before the permit application is submitted.

- Pages 44-45, Site Specific Land Application Maps must contain:

  Item (10) should be rewritten to say, *If the seasonal groundwater is three feet (0.91 meters) or less below the surface, a management plan is needed describing how you will protect groundwater. For example, you may propose General Permit for Biosolids Management Publication 21-07-006 45 May 2021 to limit applications to the time of year when groundwater has receded to more than three feet (0.91 meters) below the surface.* No land spreading until March 21 and no land spreading if snow remains on the ground, or if there is a forecast for snow or over one-half inch of rain, or if the soils are saturated.

  Groundwater wells, recharge areas, watersheds should be mapped. This waste, including if the contents contain PFAS, should not be allowed anywhere near these water areas.

- Page 47 Glossary of Terms defines:

  Septage or domestic septage: Liquid or solid material removed from septic tanks, cess pools, portable toilets, type III marine sanitation devices, vault toilets, pit toilets, RV holding tanks, or similar systems that receive only domestic sewage. Septage may also include commercial or industrial septage mixed with domestic septage if approved in accordance with the provisions in WAC 173-308-020(3)(g)

This is the definition of septage from WAC 173-350-100 and from WAC 173-308-080. WAC 173-308-005 states: (c) Septage. *Unless the context requires otherwise, "septage" is the term used in this chapter to refer to septage that is or will be managed as septage.* This last definition is circular, confusing and provides an unclear exception for "context".

SUMMARY

The biosolids regulations are old. They should be updated based on current science to reflect what is known to be contained in the processed waste, including pathogens and emerging chemicals of concern.

The Draft Permit designates processed sewage sludge as "biosolids" In other words, "biosolids" is given its own classification. In fact, the two terms are interchangeable. Designations and treatment methods aside, the resulting product is highly toxic and should not be land applied or promoted and sold as compost or fertilizer.

Current oversight and enforcement is lax. We continue to urge Ecology to permit each site individually. This will require better oversight and enforcement. It will allow public access to site specific documents and allow for informed public comments. It will inform communities when and where sewage wastes are entering their communities.

There should be an on-line import-export site for the public to track which states and companies are sending waste to Washington State and which states and companies are receiving Washington's sewage wastes.

All processed sewage wastes should be tested for PFAS, a range of endocrine disruptors, microplastics, and other potentially hazardous contaminants.

The Washington Department of Health should be more engaged in the permitting process.

Greater attention should be given to the usage of land spreading in forests.

The Draft Biosolids General Permit Application language continues to shield Department of Ecology permitters, as well as sludge processing and hauling corporations, rather than protecting the health and welfare of Washington State residents, guest farm workers, wildlife, and our natural resources. Not only should this practice stop, but Ecology should urge those in this business to adopt safer methods. Seemingly, Ecology is not proactively working towards soil health. Some states are.

Taking effect July 1, 2021, the State of New York passed NY State Senate Bill S-4722A that will reflect the latest scientific soil health and resiliency advancements. An act to amend the agriculture and markets law, the state finance law and the soil and water conservation districts law, in relation to establishing the soil health and climate resiliency act This includes, but is not limited to, no-till, cover cropping, managed grazing, perennial pasture, and precise application of added nutrients to achieve nitrous-oxide emission reductions. www.nysenate.gov/legislation/bills/2021/s4722

Ecology should adopt the 2021 HEAL ACT in this permit. In doing so, it should consider the well being of drivers hired to haul the waste. They should be made fully aware of their hazardous loads, and they should be provided protective gear.

Ecology should disallow the land spreading of septage, sludge and effluent within 200 feet of public and private wells and above critical aquifer recharge areas, oppose the spreading of this waste in

forested areas, near wetland and where there are slopes and where forest surface water flows to larger surface-water bodies.

The sewage wastes must not be applied or allowed to run or blow onto non-permitted areas.

Last, the act of our commenting on the Draft Biosolids General Permit Plan does not imply that we agree with land spreading this waste, for we do not.

Darlene Schanfald

Darlene Schanfald

Chairperson, Toxics Committee, Washington State Chapter of the Sierra Club