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Please check your links to the SEPA documents. The message I got is that they could not be found.

I am commenting on your DNS dated September 27, 2024 regarding the WA State Department of Ecology's response to the WA PCHB ruling that the 5-year permit should address PFAS, PBDEs and microplastics.

I find that your agency is misrepresenting itself and the public and without doubt circumventing the PCHB ruling. You have not responded to the ruling but only to how you will not follow it.

You want to reissue the 5-year permit. What years does this cover?

You cite 2007 DOE language. It has no merit given all the EPA, OIG, legal actions in ME, CT, TX, and other scientific data that has since been released. It is clear that PFAS is in biosolids and the more one land spreads it, the more there is a cumulative affect. PFAS is, after all, a "forever" chemical. Ecology should be suing the manufacturers and EPA for allowing this chemical, as are others, rather than intending to exasperate the problem. This waste is no longer "beneficial use," and it ever was. It has created tragedies around the world, including farmers loss of properties, animals and livelihood.

History shows that it was allowed because it couldn't be dumped in waterways so it was allowed on land for lack of another option. (See: Science for Sale. Dr. David L. Lewis. Pub. 2014) The effluent and the biosolids runoff with stormwater ensures the waste ends up in the water. And 60% of Puget Sound is polluted from sewage waste.

Myriad documents, including from Cornell University in 2009 from Drs Ellen Z Harrison and Murray McBride.

Cornell Waste Management Institute Case for Caution Revisited: Health and Environmental Impacts of

Application of Sewage Sludges to Agricultural Land https://cwmi.css.cornell.edu/case.pdf Indeed, your citation list is brief beyond words and lacks scientific credibility.

You claim: "Implementing regulatory action without risk-based guidance from EPA could interfere with established goals and benefits of biosolids recycling and may not provide demonstrated risk-reduction for human health and the environment."

The General Permit checklist highlighted that the information with respect to PFAS, microplastics and other contaminants that may be present in biosolids is incomplete and the research is ongoing regarding these emerging contaminants in biosolids. More information is needed to determine if there is risk to human health and the environment from these contaminants associated with land application of biosolids that warrants regulatory action. It is apparent that the EPA and many researchers are working hard to fill in information gaps as they have previously done with emerging contaminants in biosolids generated in Washington state. Implementing regulatory action without risk-based guidance from EPA could interfere with established goals and benefits of biosolids recycling and may not provide demonstrated risk-reduction for human health and the environment.

This is bogus. You have the authority to go beyond positions taken by the USEPA. Ecology has the ability to do the science. In the case of biosolids, Ecology is not using the "flexibility" it has to protect human health and the environment.

You say that there are only two methods besides land spreading to handle the hazardous biosolids incineration and landfilling. This is not true. Supercritical Water Oxidation (SCWO) and very high heat methods have been shown to destroy PFAS. Others can minimize both the toxicity and the leftover digestate of other chemicals..

In making this determination, we scrutinized the existing research, including the information available about PFAS in Washington state, and the fact that there are no know PFAS manufactures in Washington state. We have seen isolated events in othestates where elevated PFAS levels in biosolids are a direct result of dumping or discharging of PFAS from manufacturers into municipal wastewater treatment plants. In most cases the contamination events occurred years ago and the land application practices employed would not be allowed in Washington state. In addition, not having any PFAS manufacturers in Washington makes this even more unlikely to occur in the state. Although the study of PFAS in Washington biosolids was small, it highlighted that a facility with known industrial inputs and impacts from historical AFFF contamination generated biosolids with PFAS levels lower than those calculated from a national average of industrially impacted biosolids.

The research on these contaminants to date and information currently available show us that it is

very unlikely that current biosolids land application practices constitute a major source of PFAS exposure for humans or the environment. We also can reasonably assume, based on the absence of PFAS manufacturing in Washington and on Washington-specific PFAS sampling data, that the likelihood for biosolids to have elevated PFAS levels, or land application thereof to lead to elevated soil, groundwater or animal byproducts is unlikely.

This is a shocking position. PFAS is in so many products, products that may be manufactured in WA State using PFAS. For instance paper. Paper is coated with PFAS You may recall that since the USEPA implemented its biosolids position in 1990, it was to revisit and rule on more contaminants every two years. EPA has not done this, though it lists the existence of hundreds of contaminants - pollutants and hazardous wastes. One-third-of-a-century later the USEPA has not followed the law beyond heavy metals, nitrates and phosphorus. Now they are faced with PFAS. But there are 380,000 chemicals in the wastewater toxic soup, plus pathogens, plus synergistic created chemicals, mostly unregulated, with thousands of chemicals created annually that, too, are unregulated and they all wind up in the sewage plants.

The study "Survey of organic wastewater contaminants in biosolids 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, and found 87 different chemicals, with fifty-five chemicals found in one product alone.

In 2009, EPA published the Targeted National Sewage Sludge Survey. The survey focused on 74 processing plants in 35 states that treated more than one million gallons per day. It concluded that all

sewage sludge contains toxic and hazardous materials.

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 programs. These pollutants currently are not considered for further regulation because the agency claims it lacks the data and tools necessary to assess the health and environmental

risks. Read the report:

https://www.epa.gov/sites/default/files/2018-11/documents/\_epaoig\_20181115-19-p-0002.pdf

The USEPA has some of the most sophisticated lab/research tools that exist. Surely they could do as well as universities.

And we haven't even talked about the commercial compost sold with sewage wastes to the unsuspecting public.

Given the plentiful scientific documentation that exists about the harms of this waste and its impacts on water, air, soil, humans, crops and wildlife, you have no excuse to not follow the PCHB ruling for at least three groups of synthetic contaminants. I'm not even going to bother listing documentation herein. You can find this information online.

The WA State Department of Ecology needs a departmental makeover in how it is going to

approach sewage handling and the residual wastes so that it protects the environment, the public and the wildlife. Staff needs deep training in this area and not a reliance on antiquated, damaging regulations. This waste play a small part when it comes to global warming and climate change, but it plays a part.

In closing, it is irresponsible of Ecology not to do the work ordered by the PCHB.