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February 13, 2019

Peter Lyon - Responsible Official
Solid Waste Management - Southwest Regional Office Section Manager
300 Desmond Drive SE
Department of Ecology, Southwest Regional Office
PO Box 4775
Olympia, WA 98504-7775

re - Comment letter in response to DNS issued upon permit application to apply biosolids at 20015 128th Ave. SE, Yelm, WA 98597, Thurston County by applicant proponent Fire Mountain Farms, Inc. of 856 Burnt Ridge Rd., Onalaska, WA 98570.

Dear Peter,

I have been a land-use consultant residing and working professionally in the Thurston County vicinity for over 30 years. Before that I had extensive experience in architecture, engineering, water systems, power systems, and property law.

I own property with an address on 128th Ave SE, Yelm, WA, Thurston County. It fronts on 128th Ave about 3/4 of a mile west of the proponents site (the Site). My land there is nominally about 10 acres in size and has a valley that bisects it's length, through which runs a water feature that is called Wheeler Creek. The creek runs generally from the east to the west parallel to the Yelm Irrigation Ditch (which has not been in operational condition for many years). The origins (headwaters) of this creek are located in lands just to the south of the proposed site (the Site). The creek is also receiving major amounts of contributory drainage from the Site throughout the fall, winter, and spring. At one point the creek flows across 128th Ave through a very large culvert (that I estimate are from between 4' to 6' in diameter). At the times of highest rainfall flooding events, the creek over-fills the culvert and floods over 128th Ave in a stream that sometimes gets to about 100' wide. I have personally observed this phenomenon a number of times in the last 30 years. This is a great indication of the amount of runoff being handled through this drainage corridor from up-gradient topography, especially from the Site. A quick study of the Site topography shows that easily 50% of it's acreage drains westward into that watershed.

My property at that location also has a water well that has direct hydraulic continuity to the Wheeler Creek drainage. Most wells around that location have water levels that coincide with the same elevation as the creek drainage elevation. I have extensively tested my well water for

contaminants such as heavy metals, bacteria, nitrates, nitrites etc., and am happy to say that the water has been, and remains clean.

I am contesting your issuance of a DNS for the proposal on the Site. I am strongly opposed to it's approval and will do my best to outline my reasons herein. In addition I will do my utmost to outline why approval of such a project at the Site grievously violates my, my neighbors', the community's, and everyone in the vicinity's rights to protection by the government at all levels. Also be clear that by vicinity, I mean all the way to Olympia, Lacey, and their surrounding territory.

Let's first look at the requirements for standard of review that must be met by officials such as yourself as you examine applications like this one when they command your attention. In a general sense, the laws that apply to these applications have an important double capacity that must be carefully weighed. This double capacity measures feasibility for commerce, progress, growth, and prosperity that results, as weighed **most importantly** against protection of the public health, safety, and welfare. This is the most basic and original contractual function of government. It is the basic duty of every government official, strictly. In conformity with that principal, your part as the responsible official as defined in SEPA, is to sift out what would be relevant information for weighing of benefits and detriments vis-a-vis commerce versus protection, review that information and then come to an informed determination. The key words here are: information, review, and informed. If, as a neutral, unbiased, and dedicated civil servant acting in his primary capacity to protect the public, it would behoove you to avail yourself with an open mind to find what information would serve you in this purpose first and foremost, before jumping to hasty conclusions that would develop into an improperly conjured determination. This is the job of the 'responsible official' as defined in the state laws.

It is my understanding that you have formidable training and credentials in your fields of expertise, are well endowed to hold the post in agency that you do, and are well qualified to make important decisions as described in the previous paragraph. However, after examining the entirety of the documents that you have posted on your agency website that reflect the substance of what you reviewed and used to form the basis of your DNS, I am compelled to question either your professional capacity or your abilities at remaining unbiased in your endeavor to protect the public. Perhaps your training or agency policy are seriously lacking. It is also possible that you or I have been woefully misinformed about how the laws about disposal of biosolids are to be applied to the present type of application. I'm willing to be further enlightened and humbled by detail explanation.

The first instance of contradiction that I find in your determination is written into the determination itself. In it you stated that an '...(EIS) is not required under RCW 43.21C.030(2)(c)' along with what information you used to arrive at your determination. You are using this RCW citation as justification that you find that the information that you've posted was adequate. RCW 43.21C.030(2)(c) reads as follows:

The legislature authorizes and directs that, to the fullest extent possible: (1) The policies,

regulations, and laws of the state of Washington shall be interpreted and administered in accordance with the policies set forth in this chapter, and (2) all branches of government of this state, including state agencies, municipal and public corporations, and counties shall:

c) Include in every recommendation or report on proposals for legislation and other major actions significantly affecting the quality of the environment, a detailed statement by the responsible official on:

- (i) the environmental impact of the proposed action;
- (ii) any adverse environmental effects which cannot be avoided should the proposal be implemented;
- (iii) alternatives to the proposed action;
- (iv) the relationship between local short-term uses of the environment and the maintenance and enhancement of long-term productivity; and
- (v) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented;

Upon elementary examination of this simple law it is easily obvious to me that you have not complied with a the pre-requisite types of information that you were tasked with to form your determination in conformity with (i), (ii), (iii), (iv), and (v).

On the contrary, by only looking at the most obvious environmental aspects of the Site, and exercising a small amount of curiosity and investigation, RCW 43.21C.030(2)(c) becomes the exact opposite of what you intended. It becomes the imperative for the requirement of an EIS in conformity of it's exact intended purpose as well as the intended purpose of the legislature when they promulgated the act as shown by RCW 43.21C.010 - Purposes, where it states emphatically:

The purposes of this chapter are: (1) To declare a state policy which will encourage productive and enjoyable harmony between humankind and the environment; (2) to promote efforts which will prevent or eliminate damage to the environment and biosphere; (3) and [to] stimulate the health and welfare of human beings; and (4) to enrich the understanding of the ecological systems and natural resources important to the state and nation.

Notice that this is the stated purpose within the very same section of the statute as what you cited.

So to make the nature of your miscarriage of review very plain, let's examine some characteristics of the environment at the Site that you somehow overlooked:

1) Wildlife species on Site and immediate environs - There was no apparent review of the many species of wildlife, including threatened species, that frequent and likely inhabit the Site or are to be found in it's immediate vicinity and are very probably under the influence of conditions on the Site. A partial list of such would include canada geese, wood ducks, great blue heron, osprey, bald eagle, mink, kingfisher, pocket gophers, elk, deer, salmon, steelhead. Most of these are species that I have been personally witness to over many years as I have strolled and explored the area around the Site. It is easy for any fair-minded person to expect that these

wildlife creatures can be easily harmed by being exposed to the effects of continual application of bio-solids over the Site.

Restrictions as required under WAC 173-308-210 and shown in the landowner consent form is evidence of admitted dangerous toxicity of the bio-solids materials proposed to be spread on the Site. If all the health warnings and restrictions are aimed at protecting people, how can that essence be viewed as applied to wildlife when they logically are not under any code of restriction and cannot be prevented from sourcing food or even relaxation or habitat all over the Site? This wildlife activity will be taking place. This fact must be taken into account when further review is taken.

Very clearly the standard of respect commanded by WAC 173-308-191 - (Protection of endangered or threatened species) should (should have) set the tone for this review.

2) Endangered / listed fish species - Listed fish species including salmon and steelhead of very specific gene-pool nature or otherwise that are very well known to inhabit the Nisqually River directly below the cliff that edges along the eastern boundary of the Site. These species will be directly impacted by the proposed activity on the Site as it will likely introduce chemical contaminants into waters that will wash into the reaches of the river directly from springs and Site drainage directly off the cliffs at the eastern edge of the Site, as well as infiltration into the aquifer which subsequently expresses as large springs all along the cliffs of the river downstream.

3) Mapped habitat for threatened species of pocket gopher - Only a cursory look at the soils/habitat character of the Site will show that soils likely to contain Pocket Gopher habitat exist on the site. These critters are the subject of intense review and regulation by all levels of government at this time. Do you feel that this proposal does not have to take their lives into account for a particularly special reason? Judging from all the serious health warnings that are listed within WAC 173-308-210, these species that actually live within the soil will be killed or seriously harmed.

4) Un-enumerated water bodies - This Site is populated by numerous water bodies, wetlands, and important drainage ways that are the subject matter of common jurisdictional review and regulation. There is no indication that this was taken into account in any meaningful way in your review nor was this adequately shown in the SEPA checklist. Why is it that no wetland study and delineation has been required with setbacks established definitively as well as protections for their perimeters? At public hearing, lots of discussion and acknowledgement was made about setbacks and avoidance but who determined where those delineations would be made on the ground. Why is this proponent seemingly exempt from that task more than the general public? I postulate that they aren't and that these facts are more reason to have further review and request for further information to be supplied. No actions of this type can be allowed without having such delineations made in advance. Lines drawn on a map gotten off the web are not representative of any true conditions on the ground.

5) Drainage / surface runoff - Drainage, described as 'runoff' in the SEPA checklist, has been misrepresented by the proponent. This site drainage is sizable and will be carrying large

quantities of remnant accumulations of contaminants immediately into the various drainage ways and water bodies on Site. It's no brilliant deduction to make, that if there is a showing of all the surface water apparent on Site, that during the wet season there will be surface water runoff of appreciable consequence, and it will be carrying a significant load of contaminants with it into all these surface waters, including Wheeler Creek. The creek will transport that contamination far and wide, including it's self-injection into the significant local aquifer. What would the relationship between drainage flow contributed by the Site and surface area site application be in determining what the contaminant load might be? This system of water transport from the Site should most certainly be mapped and accounted for. This will be further explained in subsequent items.

6) 10 acre lake with it's bio-systems - Nowhere in the SEPA checklist does it mention the 10 acre lake that sits on the adjoining property to the west of the Site. This is a significant body of water that sits behind a dam on it's west end. It is fed by large springs coming directly off the Site lands. It is home to a large population of all sorts of creatures not the least of which are migratory birds that come and go throughout the year. Many are resident year-round however. The lake is obviously apparent on the provided maps but was apparently not worthy of review.

7) Wheeler Creek - There was no mention of Wheeler Creek in the SEPA checklist. As mentioned earlier, it is an important water feature that the Site contributes to greatly by drainage coming of the southwest corner and west side of the Site. The creek runs at significant volume 6 -8 months of the year. It roughly parallels the meander of the former irrigation ditch. It has a peculiar characteristic of flowing westward, under Bald Hill Rd., and then disappearing underground shortly thereafter on it's way towards Vail Rd. The Site contributes large amounts of runoff during times of rainy season soil saturation. Said runoff will carry significant amounts of bio-solids residual contamination downstream to the west and contribute most of that load into the subsurface aquifer along it's path before completely disappearing into the aquifer west of Bald Hills Rd. as herein described. This creek is a unique form of transport phenomenon and it's relationship to runoff from the proposed Site should be carefully studied and accounted for. This creek and it's drainage-way will be affected by the Site activities in a way that will cause probable significant adverse environmental impacts to all of it's water course and connected aquifer system.

8) Soils and drainage conditions - The Site contains extremely porous soils / gravels that present conditions that allow surface waters to immediately fall to aquifer levels, whether shallow or deep, and then continue traveling subsurface toward the NW, the city of Yelm, and ultimately into large springs on cliffs along the Nisqually River, McAllister Springs, and the river delta (see engineering reports cited). This large aquifer system flows relatively rapidly through the preponderantly gravelly soils and is a willing carrier for wayward molecules of whatever type that might want to hitch a ride. It is easy to see that any residual contaminants that leach from bio-solids spread on the site, will enter into these contributory upper levels of the aquifer and travel as described here. This transport function of the aquifer has been demonstrated over decades of study of the Yelm Prairie aquifer system. It serves this function whether the soil water levels are up high or not. Contaminants, as defined at WAC 173-200-020 (7), that are present will easily wash down into the subsurface water levels with the rain at any time. If there

is a dry time, the contaminants will build in the soil and then wash down, but in higher concentrations. Either way, that is where bio-solids residuals will go and become present in drinking water wells neighboring the site, drinking water wells at the city of Yelm, springs flowing into the Nisqually River, and eventually at McAllister Springs in the flow of the larger aquifer's direction. Dangers of water contamination is not reliant specifically with the water table being too high, it's that the water will carry all residual contaminants indiscriminately downward into a highly mobile aquifer. Do you think the Indian Tribes, City of Lacey, and City of Olympia would approve of biosolids being applied to open fields in the Nisqually Delta? I think we ought to find that out.

9) Bio-accumulation of contaminants - During the public hearing in January, questions and comments were voiced regarding bio-accumulation of bio-solids contaminants in the soils at the Site. The proponent responded by making some off-handed reference about studies that indicate how these molecules get captured, bound up in, and rendered forever harmless by the soil. I consider this to be an absurd assertion that was not supported by any facts or science, nor is there any indication that science of any kind related to this subject was taken into account in the review of the application materials or consultations with other officials / experts. The safety of the proposed operation hinges largely upon this subject. For example, if a contaminant level in bio-solids is considered harmless at, let's say, 5 ppb, but becomes considered harmful at 25 ppb, how much spreading of bio-solids on Site will make this become a harmful level? 5 times? Where is that number? EPA 503 standards don't determine that answer. Spreading at agronomic amounts is not an answer. It is the duty of the responsible official to determine for the public safety what is a well reasoned scientific answer to these questions. I see no indication at all that this has been done in review. Are we to believe that an unlimited amount of bio-solids can be spread continuously over the Site in perpetuity without any harmful effects to the environment?

Additionally, the previous question leads to the next; what is the science that specifically says that no matter what the levels of bio-accumulation in the soil get to be, it will be bound up in the soil and captured there for all time, never to be a vagrant contamination lingering harmfully in the countryside? This is potentially a huge probable significant adverse environmental impact from this proposed activity and it is imperative that it be thoroughly reviewed. We are being made to believe that at some point of indiscriminate and ongoing spreading of bio-solids, contaminants will not magically disappear. Or, if they disappear, where did they go? Into the aquifer. That is not a standard acceptable to any agency anywhere. Who will ever test the soils on Site, and subsurface to find if unacceptable levels of contamination have occurred? I'll tell you who; noone. That would only occur after an adverse reaction occurs, like people getting sick or wildlife dying. It is your duty to be protecting the public health, safety, and welfare, not hiding probable catastrophes behind standards that really have no relevance to site-specific application characteristics. You have not even set up a 'point of compliance' system required under WAC 173-200-060 (Point of compliance). Where is the groundwater monitoring plan to protect waters as described at WAC 173-308-190 (6)?

This community wants substantial, scientific answers to these questions **before** the probable effects caused by approval of this application can be determined to be 'non-significant'. That is what SEPA is all about; what it is for.

You're a chemical engineer. Don't tell me that it isn't common sense that if we commonly test water from an aquifer for contamination by harmful molecules like lead, mercury, or arsenic, then it's easy to reason that those molecules came from a source that could just be naturally occurring rock formations; like for instance around the area of the town of Mineral in Lewis County. If this is so, why should anyone think that bio-solids have some special property that makes them act differently? The answer is, they don't. If you don't agree with that, prove it. Let's see how qualified you really are.

10) Yelm Prairie aquifer recharge - By the aforementioned items, it could easily be deduced by careful study of the Yelm Prairie aquifer system, that allowing this DNS to stand without having done more extensive environmental review creates a high probability of unacceptable pollution to a major aquifer recharge and drinking water supply to a large population that includes the city of Yelm, rural residents in general who use private wells for drinking water, and the city water supplies of Lacey and Olympia. At the very least, it has not been shown that this subsurface condition was even considered under review. How do you propose to give everyone out in the area absolute assurance that the aquifer won't be irreparably / irreversibly harmed? Shall we just call it an experiment? Act first and think about it later? Does the name Flint, Michigan come to mind? Allowing bio-accumulation of contaminants in a known critical area of aquifer recharge up sub-surface gradient for drinking water used by a large population (including a municipality) is a violation of the government's primary duty to protect the public health, safety, and welfare (the public trust doctrine) and therefore this proposal does not serve the public interest;

To avoid extensive further review of this matter would constitute a grievous, irresponsible, and negligent oversight on the part of your agency.

11) Organic farms down-gradient from the Site - There are organic category of farms downstream of this Site vis-a-vis aquifer / springs / water supply. With the aforementioned items in mind, the consequences of this DNS will have a probable significant impact on the economic viability of such farming operations in addition to possible other poisoning and deleterious effects. They make use of very large water rights that entitle them to the use of spring waters, at high flow rates, that come directly down-gradient in aquifer flow of the Site.

12) Existing aquifer recharge/discharge springs being fed from the Site - Also related to the aforementioned items about aquifer recharge, it has been calculated that approximately 24,000 acre feet per year of springs exude from the cliffs along the Nisqually River around the Yelm vicinity, contributing mightily to the flows of the river throughout the year. As stated before, those waters are significantly impacted by the surface drainage and recharge from the Site. The sequence is: bio-solids, creek runoff into the ground as aquifer recharge, surface absorption as aquifer recharge, aquifer-delivered springs into the river.

13) Existing site applications ongoing - There was no mention in the review documents of the years of dairy manure spreading on the Site. While this has not posed a health risk and was handled in a responsible manner, what will now become of this practice? Will that manure get spread at another location or will it continue to happen at this Site? If it is to continue at the Site,

was the extra accumulation of concurrent material loading taken into account with respect to calculations of what constituted agronomic rates of spreading? This is an obvious item of environmental impact that should have been taken into account on review before issuing a DNS. In such a case, the rules of WAC 173-308-190 (2) apply.

14) Spreading rates by multiple applicants - Keeping in mind what has been stated in item 12 above, at what point, and using what criteria, did the review of this application decide precisely what will be the carefully controlled agronomic rate of spreading of product/materials over the Site? If multiple entities would be applying their materials independently over the Site, who would be the controlling overseer of this important aspect? Does the combined rate of application get limited to ½ ton per acre, 1 ton per acre, 100 tons per acre, 10,000 tons per acre, or unlimited tons per acre? This is an elementary yet very important matter of significance in order to make a valid determination upon review but is nowhere in evidence within the documents shown.

15) Odors - There are offensive odors associated with this type of application. During the public hearing the topic was virtually waived off in the fashion of ignoring jurisdiction over such things while at the same time making blanket assertions that there could be no odor problem. Of course there wouldn't be if you don't want to be stopped from spreading bio-solids at the Site. There was no effort shown that gave indications that this subject was given any consideration. There were many people at that meeting that expressed animated concern and worry about odors. They also expressed within that concern that they were familiar with the odors associated with bio-solids and found it highly objectionable. If one considers that there will likely be 50 truck loads of bio-solids being spread on the Site each day, that will necessitate virtually constant application on every day for the majority of the year. Such a circumstance leaves no time for resolution, or rest, of materials being applied so that the immediate environment could exhaust its olfactory signaling constituents and provide a more acceptable atmosphere.

The predominant weather patterns during spreading season will be characterized by high pressure areas that have minimal air movement and consequent retention of odor-laden air quality in the vicinity of the site. This does not sound like an acceptable air quality standard to subject the entire neighborhood to. Interestingly, instead of making this subject matter part of a more in-depth part of review, you volunteered that complainants would have to get some sort of enforcement from the Olympic Air Control Authority. What that means is that your method is consistent here - don't actually do a comprehensive and concerned review; just have people react to whatever problem comes up and have the citizenry deal with it to try and get either relief or enforcement. We all know where that is going... nowhere. Dealing with any of this after the fact is always a lost cause. Once approval is done, the ability for those methods is not viable. Never was; never will be.

16) Traffic impacts - This proposal includes the projection of using 50 truck loads of bio-solids per day delivered to the Site. During an 8 hour business day, that would amount to an inbound, heavy, stinking truck moving down the road at 128th Ave. Every 10 minutes. Including outbound trips that comes to one trip every 5 minutes. This is beyond allowable and constitutes a serious violation of the character of the street and neighborhood as it exists. First (and I will discuss

jurisdictional subjects later), you are supposing that you can write a permit for this activity in complete contradiction of all local laws of Thurston County that are part of the zoning ordinance. What you are encouraging is an industrial operation, not agricultural, at a level of activity on a quiet, dead-end, two lane rural neighborhood road that would not be allowed under the usual county permitting process. This type and level of activity is an utter disruption of all customary characteristics of the neighborhood relating to noise, combustion emissions, odors, safety, and wear and tear on the road that would require extraordinary levels of maintenance under such circumstances. In addition, this type and level of trucking caravan will most definitely leave a constant mess on the road. Mud from their tires will be deposited everywhere and waste droppings will show up on the road as well, and will be there to be ground into the mud left from before. Most main arterial roads don't handle that level of heavy truck travel. 100 additional truck trips per day on such a road (not to mention all the other roads) would be extremely destructive and disturbing in all respects and must not be allowed. Why has this not been properly reviewed and by what standard would it be reviewed. DOE has no road / traffic review standards per se. No wonder it got no attention.

17) Radioactive waste - no attention has been paid to answer questions raised about disposal of radio-active waste possibly contained in biosolids as mandated in **RCW 70.105.050**;

18) Alternatives - Under WAC 197-11-060 (3)(iii) the rules describe the policy premise of exploring alternatives to the proposal under review. As well, this idea is further emphasized under the provisions of WAC 197-11-792 (2) (b), where it states, "Alternatives may be:

- (i) No action;
- (ii) Other reasonable courses of action; or
- (iii) Mitigation measures (not in the proposed action)."

Also, the legislature further clarified it's intent under RCW 43.21C.030(2)(e) and elsewhere gave a list of alternative uses of bio-solids as a matter prioritization.

19) Site specificity - It has been noted that there is lack of clarity about what is the exact description of the Site as to parcels and locations. Various parcel numbers are given that don't match what the tax parcel records show as to parcel location, acreage amounts coinciding with those parcel numbers, and acreage numbers to be applied to. All these numbers should easily match and show consistency. Also, one map included with the application indicates a lot that is further up 128th Ave. to the west on the north side that is not contiguous with the main application Site but does not indicate in any way about how the spreading activities will be conducted separately on that smaller tract. All maps and information should be clear, consistent, and accurate.

20) Jurisdiction - The proposal is about an activity that is to take place in rural Thurston County on lands that are commonly subject to the laws of Thurston County (TCC). That code of laws and rules govern topics mentioned in this list with great specificity as applied liberally to all residents, land owners, businesses, etc. wherever and whomever they may be within the geographical boundaries that encompass Thurston County. I have seen that DOE reserves specific subject matter authority over the disposal and handling of bio-solids, but do not see

where they have an overt capacity to undermine the review authority of local jurisdictions when it comes to land-use applications that are projected to effect activities at site specific locations within the county. As seen above, this application has wide and serious implications on many accounts that are not within the specific purview of the DOE. This includes most land-use environmental review categories such as: wildlife, traffic, aquifer recharge, drinking water, environmental health, excavation, building construction, etc. It is easy to understand the imperative nature of integration of all these related review categories for consistency of review. Clearly this has not taken place in this case with any comprehensiveness. The most frightful instance given here is related to water supply protection for a large population over several jurisdictions. I don't see indications that you or your department have a good in-depth familiarity with the local circumstances related to this important topic. If there is such a familiarity within your agency, it doesn't sit with you. I can't imagine that the DOE wouldn't care about such important matters upon application review. So, how does such an oversight occur? I desire that you would give me an explanation of how this authority has been consolidated.

Other citations of note in this regard would be RCW 70.05.060 Powers and duties of local board of health; This confers county-wide jurisdiction as the board of health to the commissioners of the county. Also within the TCC are numerous statutes and rules governing critical areas such as aquifer recharge; 17.15.500 - Aquifer recharge areas; and many subsequent sections that apply to critical areas. TCC Chapter 17 also confers a far range of authority over subjects like wildlife and wetlands... Under TCC 17.15.900 -Table 2, the county reserves review authority over just such proposals. So, as you can see I've gone out of my way to determine by what reasoning you have done such an incomplete application review in my opinion. Can you explain why these local agencies have not given adequate review of this application.

21) Other important protections - RCW 70.54.010 Polluting water supply; RCW 90.48.080 Discharge of polluting matter in waters prohibited;

Summary - The above list is ample reason to demonstrate that the proposal Site is not an appropriate place to conduct the activity of land application of bio-solids. If the responsible official conducts further review in the case as outlined above, there can be no other logical understanding of the facts as applied to the law and rules. The above is only an indicative sampling of what needs to be taken into account during review, not a complete, all-inclusive list. For the purposes of a comment letter by a member of the public though, it should be more than adequate to demonstrate the point.

That being demonstrated, I hereby demand that you immediately withdraw the DNS that you've issued for this application, conduct a thorough, fair, and impartial review and then issue a DS. To compel this action, I am citing WAC 197-11-340 (3)(a)(ii) and (iii). I have given ample reasons herein to invoke this rule and see compelling reasons why an EIS should be required for this application from here forward.

Impartiality - Lastly, I'm very troubled by witnessing the conduct of your and your staff's presentation at the public hearing in Yelm. The information was in many instances childishly represented in a deliberate attempt to form audience perceptions in favor of the proponent. There was clearly no basis in truth for much of the misrepresentation. If it was compiled by the proponent, it was unfairly agreed to and supported by you and your staff. These presentations should be held in an impartial manner and consistent with an overall balance of consideration for public protection and commerce as I discussed in the opening.

Subject matter study citations

Yelm Water Sysytem Plan - 2008 - 2015

https://www.yelmwa.gov/connect/departments/admin_finance/reports_&_plans/reports_&_plans.php#outer-691sub-713

Appendix 4

<http://cms7.revize.com/revize/yelmwa/Appendix%204.pdf>

Appendix 5

<http://cms7.revize.com/revize/yelmwa/Appendix%205.pdf>

This plan has important material that was compiled by Golder & Associates showing the effect of pumping the aquifer down at various high rates of volume in a set time. It shows several resultant subsurface contour 'cone of depression' affects on the contour from the SW annex Highlands project all the way out to 128th Ave. This demonstrates that there is shocking rapid response and detectability of hydro-geological continuity laterally in the aquifers at multiple levels below the area.

Also contained in these appendices are handy cross-section diagrams to use in understanding the various layers of aquifer below the area. It has also been proven that there is appreciable hydro-geological connectivity between all these layers.

Conceptual Model and Numerical Simulation of the Ground-Water-Flow System in the Unconsolidated Sediments of Thurston County, Washington

<https://pubs.usgs.gov/wri/wri994165/pdf/wrir994165.pdf>

This large study very clearly illustrates by many maps, and explains the subsurface flow contours of the Yelm Prairie at all levels of the aquifer. It can be seen by this the enormous and steady flow of these waters from the location of the proposal all the way through Yelm, McAllister

128th Ave SE, Yelm, WA bio-solids application comment letter

Springs, and out to the Puget Sound at the Nisqually River delta. It also shows and describes the large outflow of springs along the river's banks and quantifies this flow as approx. 24,000 afy.

Sincerely,

Matthew Schubart

cc

Maia Bellon - Director WSDOE

Thurston County Commissioners

Art Starry - Director Thurston County Environmental Health Dept.

Robert Smith - Director Thurston County Planning Dept.

Kevin Hanson - Thurston County Hydro-geologist

Wyatt Golding - Attorney - Ziontz/Chestnut

Tom McDonald - Attorney - Cascadia Law Group