



DEPARTMENT OF  
**ECOLOGY**  
State of Washington

## **Responsiveness Summary**

### **Comments and Responses on the Draft General Permit for Biosolids Management**

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*Comment Period: May 6, 2015 – June 24, 2015*

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Waste 2 Resources Program  
Washington State Department of Ecology  
Olympia, Washington 98504-7600

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# Introduction

Washington State Department of Ecology (Ecology) issued a final *General Permit for Biosolids Management* (general permit) following a public process of review and comment. This document contains Ecology's response to all comments received on the draft general permit during the public comment period that ran from May 6, 2015 – June 24, 2015 including the Public hearings held on June 16, 2015 in Lacey and June 17, 2015 in Yakima.

Table 1 lists all commenters and reference number(s) for comments they submitted. All comments and Ecology responses follow Table 1. The text in all comments below is exactly as submitted to Ecology with the exception of comments 59 and 60 which were summarized. All original comments are provided in Appendix A. Sixty comments were received in writing, no comments were given at either public hearing. Of the sixty comments, 32 are from local government, twenty-six from an association of biosolids managers, and two from private citizens. Some minor changes were made in the final general permit based on comments. No substantive changes were made in response to the comments.

The general permit applies to all treatment works treating domestic sewage in the state. The majority of these facilities are publicly owned wastewater treatment plants. Other types of facilities subject to the general permit include privately owned wastewater treatment plants that treat only domestic sewage, composting facilities that treat biosolids as a feedstock, biosolids beneficial use facilities, and septage management facilities.

Within 90 days of the effective date of the general permit, each facility seeking coverage must submit a complete permit application as defined in the general permit and comply with any SEPA and public notice requirements. Facilities that have met all the procedural requirements and submitted all required documents will be “provisionally” approved for coverage under the general permit. Ecology will then conduct a full review of each facility's biosolids program before providing “final” approval of coverage.

The terms and conditions of the general permit may be appealed. Any appeal must be filed with the Pollution Control Hearings Board and served on Ecology within thirty (30) days of the issuance of the General Permit. The basic process for an appeal is outlined in RCW 43.21B.310. The issuance date of the new General Permit is August 5, 2015. The General Permit will become effective September 4, 2015, pending any appeals.

Ecology thanks all reviewers and commenters. Your continued interest and involvement are appreciated.

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# Comments and Responses on the Draft General Permit for Biosolids Management

**Table 1.** Commenters and the comment reference numbers

Commenter	Reference Number
David Bosch, Tacoma Pierce County Health Department	Comment 1 - 3
Lori Zboralski, City of Tacoma	Comment 4
Jessica Shaw, City of Wenatchee	Comment 5
Maile Lono-Batura, NBMA	Comment 6 - 31
Peggy Leonard, King County Wastewater Treatment Division	Comment 32 - 58
Joe Frank, Private Citizen	Comment 59
Malena “Kay” Vik, Private Citizen	Comment 60

## COMMENT 1

“Section 1.3 – Ecology’s *Summary of Changes between the 2010 and 2015 version of the General Permit for Biosolids Management* states that WAC 173-308 does not apply to biosolids activities that occur on federal facilities. Can Ecology clarify why this change is required in the new General Permit and the consistency of the applicability of solid and dangerous waste regulations (WAC 173-303, WAC 73-304, WAC 173-350, WAC 173-351) to federal facilities?”

## RESPONSE 1

This is not a change from the previous general permit. It is a clarification. Federal facilities may choose to manage biosolids under federal regulations as long as the biosolids they manage remain on federal land. If biosolids are transported onto lands of the state, Ecology requires a General Permit for Biosolids Management for all activities related to transport and further management. For example, a Navy base may choose to manage their biosolids under federal requirements and are not required to obtain a General Permit unless they transport biosolids onto lands of the State.

## COMMENT 2

“Section 9.2 and Section 11.2 Soil Testing – The TPCHD is not opposed to this new requirement. However, the TPCHD recommends that the General Permit provide soil testing protocols or soil testing guidance so that it is clear how and when such samples are to be collected. For example, can a soil sample be collected from the bottom of a four-foot hole in order to comply with this requirement? Also, for the background metals, depending where and how deep they are collected, what are the ramifications if there are elevated metals at a proposed land application site? I am thinking in relation of uncontrolled impacts to the land from fallout of the old Tacoma Smelter (arsenic and lead), for example.”

## RESPONSE 2

Concur. Soil sampling guidelines will be provided with the issuance of the 2015 General Permit for Biosolids Management. The soil sampling guidelines will provide requirements for depth of sampling and how to collect each sample. Background levels of metals will provide Ecology with information necessary to determine site appropriateness for Class B biosolids land application.

**COMMENT 3**

“Table 7 and Table 10 – The TPCHD recommends listing the restrictions for the grazing of livestock and domestic animals after biosolids or septage have been land applied.”

**RESPONSE 3**

No change. The content of Tables 7 and 10 remain consistent with the 2010 General Permit. While some restrictions are not listed in either table in the General Permit, they are permit requirements per WAC 173-308. See WAC 173-308-210 Bulk Biosolids Applied to Agricultural Land, Forest Land, a Public Contact Site, or a Land Reclamation Site. The regulations must be used together with the general permit as the general permit is not intended to replace the regulation.

**COMMENT 4**

“Please include SW-846 Method 7473 for the analysis of Mercury as an approved method in Table 3 Analysis Methods, Preservation and Holding Times.”

**RESPONSE 4**

No Change. SW 846 Method 7473 for analysis of Mercury is not an approved method for testing inorganic pollutants per 40 CFR 503, 40 CFR 136 or WAC 173-308.

**COMMENT 5**

“Page 20, Section 9.2 Soil Testing, 1<sup>st</sup> Paragraph

This subsection is very general compared to other subsections (for example 9.7 Site Management and Public Access Restrictions for Class B Biosolids). I would recommend including the exemptions for exceptional quality biosolids.”

**RESPONSE 5**

Concur. The addition of nonexceptional quality biosolids will be added to this sentence to read ‘All new land application sites, where nonexceptional quality biosolids will be applied, must be tested for the pollutants listed in WAC 173-308-160 Table 3 to determine background levels’.

**COMMENT 6**

Section 1.2 pg 5 “...Ecology could list the sections that apply to EQ/Class A biosolids and the sections that apply only to nonexceptional quality biosolids. Areas of possible confusion between EQ/nonEQ include sections 1.5, 2.5, and 9.”

**RESPONSE 6**

No change. This section is not intended to define the differences between EQ and non-EQ biosolids. There are separate sections in the general permit that specifically apply to biosolids, sewage sludge, septage or all three regardless of class.

**COMMENT 7**

Section 1.5 pg 6 “We suggest adding "nonexceptional quality" bulk biosolids to this first bullet and "exceptional quality" to the fourth bullet.”

**RESPONSE 7**

No change. The bullets represent only a few of the activities subject to the permit. For example, not all bulk biosolids permitted are ‘nonexceptional quality’. To determine whether a facility’s biosolids are subject to any provisions in the permit based on classification, they must contact their regional biosolids coordinator.

**COMMENT 8**

Section 2.5.1 pg 9 "Headings in these sections are confusing because they do not include the words "nonexceptional quality." As written, it appears that EQ biosolids are also subject to the public notices in this section. This would be imposing new requirements for EQ biosolids. We request that 2.5.1 be re-titled "Wastewater Treatment Plants That Do Not Land Apply Nonexceptional Quality Biosolids."

**RESPONSE 8**

Concur. The title will be changed to read, 'wastewater treatment plants that do not land apply nonexceptional quality biosolids'.

**COMMENT 9**

Section 2.5.2 pg 9 "To maintain consistency with the rule and for clarity, we suggest that 2.5.2 be re-titled "Wastewater Treatment Plants that Land Apply Nonexceptional Quality Biosolids."

**RESPONSE 9**

Concur. The title will be changed to read, 'wastewater treatment plants that land apply nonexceptional quality biosolids'.

**COMMENT 10**

Section 2.5.1 pg 9 "We also recommend that the first paragraph in 2.5.1 include further clarification and read as follows: "If your facility met the public notice requirements under the previous general permit (and you have documentation to show this) and you do not land apply nonexceptional quality biosolids, you are not required to conduct additional public notice. This includes facilities that produce only exceptional quality biosolids and facilities that send their biosolids to a Beneficial Use Facility or composting facility."

**RESPONSE 10**

No change. This section encompasses all facilities that produce biosolids, regardless of the class of biosolids. Facilities that produce only EQ biosolids, facilities that send for further treatment, facilities that send their biosolids to a BUF and/or compost facility are wastewater treatment plants that do not land apply biosolids.

**COMMENT 11**

Sections 2.5.1, 2.5.2, 2.5.3 pgs 9, 10 "Each of these sections refers to "approved interested parties list." Approval of the list by Ecology is a new concept in this permit; the previous permit required agencies to keep an "official" list. Two comments: (1) there is no previous mention of the list; it is not included in the glossary and is defined only in Appendix 1 Public Notice Content. Recommend that a reference to App. 1 be included. (2) there is no mention anywhere in the rule or permit about how the list is approved or why it needs to be approved."

**RESPONSE 11**

Concur, a definition for interested parties will be added to the glossary of terms. A facility's official interested parties list for the general permit application includes all parties interested in the permit activities of that facility. Any person(s) who has asked to be on the facility's interested parties list related to the permit must be notified on or before notice is submitted to a newspaper or posted at a land application site. See WAC 173-308-310(13)(h).

In order to ensure that all interested parties are on one list, Ecology will review each permittees 'official' list for completeness as the lists held by the permittees and Ecology may differ. Ecology will update a facility's interested parties list if necessary to ensure all interested parties are notified. Any person who provides comment in response to a public notice or who attends and signs in at a public comment hearing, must receive notice as required by rule or for final appealable decisions made by Ecology.

#### **COMMENT 12**

Section 3.1 pg 11 "We request that the permit contain more clarification of the statement "Permit conditions remain in effect even if you file a request to modify, revoke and reissue, or terminate coverage under this permit or notify Ecology of planned changes or anticipated noncompliance." Without clarification or reference to WAC 173-308-310(23), there is an implication that coverage under the permit cannot be modified."

#### **RESPONSE 12**

No change. Section 3.1 in the Draft 2015 General Permit combined sections 4.1 and 4.6 from the 2010 General permit. The statement quoted above has not changed from the previous permit, and WAC 173-308-310(23) is referenced in the sentence that follows that statement. Modification can be made to a permit with approval from Ecology. Prior to Ecology's approval of the modification, current permit conditions remain in effect.

#### **COMMENT 13**

Section 3.2 pg 11 "We suggest that this sentence from the 2010 permit be re-inserted "If you have been covered under this permit, you are automatically covered under a new general permit issued by Ecology when you submit a Notice of Intent and apply for coverage under a new permit in accordance with WAC 173-308-310(3)-(5)." We think it is important to be consistent with the rule and to clarify in the permit that a facility can have provisional approval for their biosolids management activities even if Ecology has not yet issued a final approval letter."

#### **RESPONSE 13**

No Change. This section remains consistent with the rule even with the omission of the above sentence. The statement above came directly from WAC 173-308-310(5) (b). It is not necessary to repeat this statement when providing reference to it.

#### **COMMENT 14**

Section 3.3 pg 11 "This sentence is unclear to us. We suggest that the sentence from the 2010 permit be used as a replacement in this section: "It is not a defense for a permit holder in an enforcement action to argue that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.""

#### **RESPONSE 14**

Concur. The original text will be reinstated.

#### **COMMENT 15**

Section 3.9.2 pg 12 "The final bullet in this list (about submitting a report within 14 days) is an instruction, not a point that should be covered in the report. It should be taken out of the list. This statement also contradicts the earlier statement in this paragraph that a written explanation should be submitted within 5 days of the noncompliance. If Ecology intends to require a written explanation at 5 days and a report at 14 days, then this sentence could be modified to say, "A final report must be submitted to Ecology no later than 14 calendar days following the incident or by a later date approved by Ecology." Depending on the type of noncompliance, more than 14 days may be required for data analysis or other fact-finding."

#### **RESPONSE 15**

Concur. The final bullet was not intended to be kept. It was removed from this list.

#### **COMMENT 16**

Section 3.9.2 pg 12 "The 2010 permit differentiated between Significant Noncompliance (endangering human health or the environment), which required self-reporting within 24 hours and Other Noncompliance, which

required self-reporting within 5 days. The 2015 draft permit only refers to noncompliances which may endanger human or the environment. We request that Ecology re-instate the category of Other Noncompliance with its 5-day reporting requirement.”

**RESPONSE 16**

Concur, clarification was made. Section 3.9.2 *Noncompliance* has been changed to reflect the intentions of combining sections 4.12.3 and 4.12.4 from the 2010 General Permit. This section will now read as follows: “You must report to your regional biosolids coordinator any noncompliance within 24 hours of learning of the situation, notwithstanding *Other Information* in Section 3.9.3.” The determination as to whether a compliance issue may or may not endanger human health or the environment will be made by Ecology.

**COMMENT 17**

Section 3.13 pg 13 “To be consistent with WAC 173-308-310 (19), we request that Ecology re-insert the explanation/justification found in the state rule for imposing additional permit requirements. The sentence would read “On a case by case basis, Ecology may impose requirements that are in addition to or more stringent than the requirements in the permit if Ecology believes that the requirements are necessary to protect public health or the environment from any adverse effect of a pollutant in the biosolids or to ensure compliance with the biosolids rule.””

**RESPONSE 17**

Concur. Section 3.13 is a summary of WAC 173-308-310(19). To be clearer, a reference to this provision of the rule will be added but the language will remain the same.

**COMMENT 18**

Section 5.1 pgs 14, 15 “This section refers to only 2 types of temporary storage as acceptable: lagoons and tanks. The logic present in WAC-173-308-280 is missing. That section of the rule states that temporary, small scale storage on land for less than 2 years is exempt from Solid Waste rules for design/construction/operation of impoundments if the biosolids are stored in a manner that is unlikely to result in the contamination of ground water, surface water, air, or land under current conditions or in the case of fire or flood. We request that Ecology place the language from the rule into the general permit under section 5.1 Exemptions. Without this addition, there is no language in the permit that explicitly addresses temporary storage of biosolids on land.”

**RESPONSE 18**

No change. This section remains consistent with the 2010 General Permit. Section 5.1 specifies that as long as biosolids storage is managed in a way that is protective of human health and the environment, approved by Ecology, in accordance with any environmental permits, or the storage meets the definition of “temporary, small-scale storage” you are exempt from the biosolids storing requirements. Temporary storage of biosolids on land falls into this exemption if the above requirements are met. The regulations must be used together with the general permit as the general permit is not intended to replace the regulation.

**COMMENT 19**

Section 6.1 pg 15 “The phrase “obtain a written determination” is too vague and does not include the detail contained in WAC 173-308-300(7). We suggest “Obtain a written determination from the LHJ where emergency”

**RESPONSE 19**

No change. In Section 6.1 under the heading *Disposal on an Emergency Basis*, it already states “obtain a written determination from the LHJ where the biosolids or sewage sludge is proposed for disposal”.

**COMMENT 20**

“We request that the requirement in the first bullet--obtaining written approval from Ecology for disposal--be eliminated. Emergency disposal for many facilities is needed as the result of a truck accident or production of biosolids that don't meet the standards for inerts. Written approval from Ecology may be impossible on weekends or holidays.”

**RESPONSE 20**

No change. The municipal solid waste landfills must receive approval from the LHJ to accept the sewage sludge. In turn, the LHJ and Ecology consult to determine if landfill is appropriate, depending upon the circumstances that make it necessary. After which, the LHJ will provide a determination to both the municipal solid waste landfill and the facility disposing of sewage sludge. Ecology will then provide a letter of approval to the facility. To streamline this process for situations such as a spill or weekend/holiday emergency, a contingency plan is required in the new 2015 General Permit Application where prior approval will be determined in case of such emergencies.

**COMMENT 21**

Section 6.2 pg 15 “We request that Ecology review the sequence of events in this section. It does not seem logical to be required to obtain written approval from Ecology before the plan is submitted for approval. We suggest editing the first bullet to say something like "notify Ecology that temporary disposal may be needed and a plan is being prepared.””

**RESPONSE 21**

Concur. The sequence of required events has been changed.

**COMMENT 22**

Section 8.3 pg 17 “The inclusion of Table 2 is confusing because it provides an example of only one of many methods of pathogen reduction and VAR. This section would be more clear without the table.”

**RESPONSE 22**

No change. This section and Table 2 have not changed from the 2010 permit. It serves as an example of the minimum requirements for one type of monitoring process. The regulations must be used together with the general permit as the general permit is not intended to replace the regulation.

**COMMENT 23**

Section 8.6 pg 18 “Analysis for chromium VI seems inappropriate for biosolids. Chromium VI is reduced to nontoxic chromium III when in contact with organic matter. Ecology and EPA rules do not require monitoring for VI.”

**RESPONSE 23**

Concur. Chromium is not required for testing.

**COMMENT 24**

“Please include SW-846 Method 7473 for the analysis of Mercury as an approved method in Table 3 Analysis Methods, Preservation and Holding Times”

**RESPONSE 24**

No Change. SW 846 Method 7473 for analysis of Mercury is not an approved method for testing inorganic pollutants per 40 CFR 503, 40 CFR 136 or WAC 173-308.

#### **COMMENT 25**

Section 9.2 pg 20 “The requirement to test all new land application sites for metals is a new requirement in the general permit. Ecology's Best Management Guidelines only suggest this analysis. It's not clear why this would be required at all sites when the metal content of the biosolids is known and was determined by EPA to be protective even after repeated applications. This pre-application sampling is primarily information for the landowner and biosolids generator to understand background conditions of their site.”

#### **RESPONSE 25**

No change. Testing of Table 3 pollutants in soil at new application sites will provide a baseline for these constituents. This is a new requirement for new application sites only and is not necessary after the initial biosolids application. While the biosolids metals contents are known prior to land application, soil constituents are not known. A baseline soil analysis will establish a means of comparison if future testing is necessary.

#### **COMMENT 26**

Section 9.2 pg 20 “We request that Ecology specifically identify nitrogen as the only nutrient required to be tested in soils prior to each application. And remove the word "nutrients" from this section. Agronomic application rates are based solely on nitrogen, not other nutrients (WAC 173-308-190 and the EPA 503 rule).”

#### **RESPONSE 26**

No change. Section 9.2 references WAC 173-308-190 for nutrient testing. While nitrogen is used as a basis for protection of waters of the state, there may be circumstances in which phosphorus or other nutrients must be tested.

#### **COMMENT 27**

Section 9.3 “We suggest adding "nitrogen" in discussion of the agronomic requirement: "Biosolids must be applied at an agronomic rate for nitrogen in accordance with..." This is for clarity and consistency with the state and federal rules.”

#### **RESPONSE 27**

No change. The agronomic rate requirements are referenced in this section. All agronomic rates are to be determined in accordance with WAC 173-308-190 which outlines specifications for the protection of waters of the state. This section of the permit remains consistent with the state and federal rules.

#### **COMMENT 28**

Section 9.7.3 pg 23 “We request that the restriction of "no application within 100 feet" of surface waters be returned to the standard "no application within 33 feet (10 meters)" required in previous general permits, the state rule and the federal 503 rule. The BMGs contain detailed recommendations on buffers for surface waters that were based on field research; this Ecology publication should be referenced by asterisk for additional information. One NW Biosolids member has been protecting surface waters near biosolids application sites successfully for more than 25 years using these recommended and variable buffer widths. A blanket prescription of 100 feet ignores the research and operational experience that went into the BMG recommendations and may make many good application sites infeasible.”

#### **RESPONSE 28**

No change. Federal and State rules specify the application of biosolids near waters of the state be no less than 33ft (10 meters). This is not a standard but a minimum. The permit states no application within 100 feet\*, where the “\*” means unless a different buffer is approved or required by Ecology. Anyone wishing to apply biosolids at the minimum buffer must seek approval from their regional biosolids coordinator. Ecology will determine if a buffer of 33 feet is appropriate based upon soil type, slope, vegetative cover and water body type. The BMGs provide guidelines for buffers to water in the following tables for both

agricultural and forest applications and should be used if Ecology has not approved a lesser buffer prior to land application.

For agricultural sites the BMGs recommend buffers based on soil and vegetative cover as follows:

Application Method	Ground Surface Cover	Slope Effect Suitability Rating (Table 4.6)	Type of Water Body		
			River, Lake or Stream	Seasonal	Ditch
			Buffer width, feet		
Surface	Bare Soil	Poor/Fair	200	100	50
		Good/Excellent	100	50	33
Surface	Permanent Vegetative cover	Poor/Fair	100	50	33
		Good/Excellent	50	33	33
Injected or Incorporated	Bare Soil	Poor/Fair	100	50	33
		Good/Excellent	50	33	33

For forest sites, the BMGs recommend buffers based on the condition of the buffer area as follows:

Application Method	Type of Water Body		
	River, Lake, or Stream	Seasonal	Ditches
Surface applied:			
Undisturbed buffer	100	50	33
Disturbed buffer	200	100	50
Injected or incorporated	100	50	33

**COMMENT 29**

Section 9.7.3 pg 23 “For consistency with the federal and state biosolids rules, we suggest Ecology change its "no application allowed" for frozen or snow-covered sites to a statement that "bulk biosolids may not be applied to the land so that they enter a wetland or waters of the state, unless approved in a permit by the department or by EPA with the approval of the department (WAC-173-308. Permittee's Site-Specific Land Application Plan must describe in detail how biosolids application to frozen or snow-covered ground would be managed to protect wetlands and other surface waters.”

**RESPONSE 29**

No change. Land application of biosolids during winter months will be determined on a case by case basis. Table 7 in Section 9.7.3 does not allow for land application of biosolids on flooded, frozen or snow covered sites unless approved by Ecology. This is consistent with 40 CFR 503.14(b).

**COMMENT 30**

Section 10 pg 23 “For more clarity, this section needs a sentence that simply says biosolids distributed in this way must be EQ. We suggest: "Any biosolids sold or given away must meet the requirements for exceptional quality biosolids. This means they must meet the pollutant concentration limits in Table 3 of WAC 173-308-160, one of the Class A pathogen reduction requirements in WAC 173-308-170, and one of the vector attraction reduction requirements in WAC 173-308-180.”

**RESPONSE 30**

Concur. The statement ‘any biosolids sold or given away must meet the requirements for exceptional quality biosolids’ will be added.

### **COMMENT 31**

Appendix 3 pg 31 “Item (1) of the content required for SSLAPs is not applicable if a permittee is planning to apply biosolids that meet Table 3 limits. The requirement to report information about previous applications of biosolids with pollutants in excess of Table 3 values only applies if you are currently planning to apply biosolids above Table 3 limits, or in other words, biosolids subject to Table 2 cumulative pollutant loading rates. See WAC 173-308-160 2(b), which reads “Before bulk biosolids subject to the cumulative pollutant loading rates in Table 2 are applied to the land, the person who proposes to apply the bulk biosolids must...determine whether bulk biosolids subject to the cumulative pollutant loading rates were applied to the site...””

### **RESPONSE 31**

No change. There may be incidents where biosolids were land applied prior to the state program. All that is being asked in Appendix 3 number 1 is if it is know whether or not biosolids exceeding table 3 limits may have been land applied on the site the SSLAP is being written for. If no biosolids exceeding Table 3 limits were ever applied, the statement given should be “to the best of our knowledge, no biosolids exceeding Table 3 limits have been applied to this site”.

### **COMMENT 32**

Section 1.2 “We suggest adding “composting toilets” to the sentence about septage. There is growing interest in the use of composting toilets, and there is confusion about the management and regulation of those solids. WAC 173-308-193 is specific about this issue and it would be helpful to include this information in the permit and its glossary. The revised sentence would read: “Septage is a class of biosolids that comes from septic tanks, *composting toilets*, and similar systems receiving domestic wastes (*see definition of septage in glossary of terms*).”

### **RESPONSE 32**

No change. Septage is defined as “...liquid or solids material removed from septic tanks, cess pools, portable toilets, type III marine sanitation devices, vault toilets, pit toilets, RV tanks, or similar systems...” Compost toilets fall under ‘similar systems’ within the definition of septage.

### **COMMENT 33**

Section 1.4 “Syntax correction: “Composting facilities that compost non-exceptional quality biosolids that *and* do not have a permit meeting state program requirements as determined by Ecology.” It’s the facilities that don’t have the correct permit, not the biosolids. Also it’s not clear which state program requirements are not being met – the biosolids program? For clarity, rewrite as “*state biosolids program requirements*.”

### **RESPONSE 33**

Concur, clarification was made. The sentence will be rewritten as “Composting facilities that compost non-exceptional quality biosolids that do not have an adequate permit issued by the local health jurisdiction as determined by Ecology”.

### **COMMENT 34**

Section 2.5 “We find the new language in this section to be confusing because it does not distinguish between exceptional quality (EQ) and nonexceptional quality biosolids...We request that 2.5.1 and 2.5.2 be re-titled to be specific for “*nonexceptional quality biosolids*.”

Rationale: Keeps permit language consistent with language in WAC 173-308-310(13) and previous general permits. Maintaining the same language in the permit and the rule will reduce confusion for permit holders.

### **RESPONSE 34**

Concur. The title in 2.5.1 will be changed to read, ‘wastewater treatment plants that do not land apply nonexceptional quality biosolids’ and the title in 2.5.2 will be changed to read, ‘wastewater treatment plants that land apply nonexceptional quality biosolids’.

### **COMMENT 35**

“We further recommend that this language from the 2010 permit (3.5.2) be added as the second sentence in 2.5.1: *“This includes facilities that produce only exceptional quality biosolids and facilities that send their biosolids to a Beneficial Use Facility or compost facility.”*”

Rationale: Without this addition, the public notice process for facilities that compost or produce EQ biosolids is not explicitly covered in the permit.”

### **RESPONSE 35**

No change. This section encompasses all facilities that produce biosolids, regardless of the class of biosolids, and do not land apply. This includes but is not limited to: facilities that produce only EQ biosolids, facilities that send for further treatment, facilities that send their biosolids to a BUF and/or compost facility. The public notice processes are subject to WAC 173-308-310(13). The regulations must be used together with the general permit as the general permit is not intended to replace the regulations.

### **COMMENT 36**

“In 2.5.1, 2.5.2, and 2.5.3, there are references to submitting an “official interest [sic] parties list” to Ecology’s biosolids coordinators. This is the first time this list is mentioned in the permit, and it is not in the glossary. The only definition is found in Appendix 1, (7). This reference needs to be inserted. “

### **RESPONSE 36**

Concur, a definition for interested parties will be added to the glossary of terms. A facility’s official interested parties list for the general permit application includes all parties interested in the permit activities of that facility. Any person(s) who has asked to be on the facility's interested parties list related to the permit must be notified on or before notice is submitted to a newspaper or posted at a land application site. See WAC 173-308-310(13)(h).

### **COMMENT 37**

“Also, in 2.5.1 through 2.5.3, the phrase “approved interested parties list” appears. This concept is new to this permit. But there is no information about how the list is approved or why it needs to be approved. Is Ecology going to add people to the list, reject lists that are too small, or make other modifications? Since people can join the interested parties list by responding to the public notice, then we can expect that the pre-public notice list might be small.”

### **RESPONSE 37**

Comment noted. In order to ensure that all interested parties are on one list, Ecology will review each permittees ‘official’ list for completeness as the lists held by the permittees and Ecology may differ. Ecology will update a facility’s interested parties list if necessary to ensure all interested parties are notified. Any person who provided comment in response to a public notice or who attends and signs in at a public comment hearing, must receive notice as required by rule or for final appealable decisions made by Ecology. The length of the interested parties list may change over time depending on interest and is not a determination of completeness.

### **COMMENT 38**

Section 3.1 “The text states “Permit conditions remain in effect even if you file a request to modify, revoke and reissue, or terminate coverage under this permit or notify Ecology of planned changes or anticipated noncompliance.”

If a modification is requested, steps that Ecology will take to review and approve that modification should be outlined. We also suggest a reference to WAC 173-308-310(23). Are such modifications given provisional approval (WAC 173-308-310 18(a))? We suggest Ecology notify the facility of its approval process and schedule and relay its decision to the facility in a timely manner. Without clarification or reference to the process outlined in the rule, there is an implication that coverage under the permit cannot be modified.”

**RESPONSE 38**

No change. Modification of a permit can be made at any time with cause, however, any cause for modification referenced in WAC 173-308-310(23) must be submitted for review. Until the modification is approved, current permit conditions remain in effect. There is no provisional approval of the modification to a previously submitted application. Ecology will notify the permittee of the approval. WAC 173-308-310(23) is already referenced in Section 3.1.

**COMMENT 39**

Section 3.2 “The draft permit has removed the following language used in the 2010 permit:

“If you have been covered under this permit, you are automatically covered under a new general permit issued by Ecology when you submit a Notice of Intent and apply for coverage under a new permit in accordance with WAC 173-308-310(3)-(5).”

It is unclear whether this omission represents a change in Ecology’s procedures, or if the sentence was dropped as a plain talk improvement. We recommend re-inserting this statement because it adds clarity to the permit process and automatic provisional approval for biosolids management activities prior to a facility’s receipt of a final approval letter, in accordance with WAC 173-308-310 (18)(a).”

**RESPONSE 39**

No Change. This section remains consistent with the rule even with the omission of the above sentence. The statement above is from WAC 173-308-310(5)( b). It is not necessary to repeat this statement when providing reference to it. There is no change to the provision.

**COMMENT 40**

Section 3.3 “This title and the text are confusing. Is the intended meaning between the 2010 and 2015 permit language the same? The 2010 permit read: “It is not a defense for a permit holder in an enforcement action to argue that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.” This version is has more detail than the sentence proposed in 2015, but we think this section should be revised with informative, plain language. The example given in the Summary of Changes does not seem to apply to the activities of the biosolids general permit.”

**RESPONSE 40**

Concur. The original text was reinstated.

**COMMENT 41**

Section 3.9.2 “We discovered errors or inconsistency in this section that likely resulted from combining the Significant Noncompliance and Other Noncompliance sections of the 2010 general permit.

The final bullet point, “Submit report no later than 14 calendar days following the incident” appears to be an instruction on when to submit a report, not a point that should be covered in the report. However, the first paragraph states that a written explanation should be submitted within 5 days.

The language in the 2010 permit more clearly differentiates between Significant Noncompliance and Other Noncompliance and thus, the rationale for notifying Ecology within 24 hours (for Significant Noncompliance) or within 5 days (for Other Noncompliance). The previous permit allowed for options for notifying Ecology: orally, in writing, or as requested by Ecology.

If Ecology does not reinstate the previous language, we recommend that the requirement for a written report be changed to “not later than 14 days following the incident or by a later date approved by Ecology.”

**RESPONSE 41**

Concur. The final bullet was not intended to be kept. It was removed from this list.

#### **COMMENT 42**

Section 3.13 “We recommend that Ecology use the language from the previous permit that was dropped from the first sentence in this section (in italics): “On a case by case basis, Ecology may impose requirements that are in addition to or more stringent than the requirements in this *permit if Ecology believes that the requirements are necessary to protect public health or the environment from any adverse effect of a pollutant in the biosolids or to ensure compliance with this permit.*”

Rationale: This statement is found in WAC 173-308-310(19), and we recommend that Ecology continue to use it in the permit to specify that Ecology must justify additional or more stringent requirements based on a demonstrated need to protect the environment and human health.”

#### **RESPONSE 42**

No change. Section 3.13 is a summary of WAC 173-308-310(19). A reference to this portion of the rule was added. Not including the rule language in the permit does not change the requirement. The regulations must be used together with the general permit as the general permit is not intended to replace the regulation. Ecology bases decisions for additional or more stringent requirements on all laws and regulations pertaining to this permit. Should a permit holder feel that any additional or more stringent requirements are not justifiable; the permit holder may appeal per WAC 173-308-042.

#### **COMMENT 43**

Section 4.1 “We recommend adding the word “contractual” in the second sentence, so that the sentence would read as follows, “The plan may be from either the sending or receiving facility, whichever has *contractual* responsibility for the transfer.” This emphasizes that permit holders need to have these responsibilities clearly defined.

In the first bullet, we recommend removing the words “any possible” with respect to alternate routes. King County works diligently with its transportation contractor to determine the safest, most economical and community-friendly routes for transporting biosolids. A list of *any possible* alternate routes could include routes that are less desirable, while limiting the plan to only specific routes may not allow adequate flexibility in the event of weather, road conditions, detours, etc.”

#### **RESPONSE 43**

Regardless of contractual agreements, the biosolids generator remains responsible for their biosolids until the receiving facility takes possession. However, the word *any* will be removed so that the sentence reads, ‘the main route traveled and possible alternate routes’. Possible alternate routes leaves flexibility for weather/road conditions, detours, etc.

#### **COMMENT 44**

Section 5 and 5.1 “WAC 173-308-280 states that “Facilities storing biosolids...under...an environmental permit and facilities **conducting temporary, small-scale storage**...are exempt from this section if the department determines that the standards (of non-contamination of the environment) are being met.” This concept/approval of small temporary storage options has been lost or omitted from the current draft permit except in connection with lagoons and tanks. The temporary field storage commonly used in this state is not addressed at all, except with the new phrase “...and with approval from the regional coordinator.” To restore and clarify this important option, we suggest the following changes: 5.1 Exemptions: The first sentence should not be bulleted. We have no comments on the remaining two bullets; however, we recommend adding one new bullet point that would read:

- *Your land application practices include other methods of small scale storage that are approved by the regional coordinator and have a duration of 2 years or less as defined in the glossary of this permit, unless a longer period is approved by Ecology.*”

#### **RESPONSE 44**

No change. This section remains consistent with the 2010 General Permit and WAC 173-308-280. There may be a misunderstanding of the definition of temporary, small scale storage. Temporary, small scale

storage is defined as the storage of biosolids for no more than 30 days in a tank holding no more than 10,000 gallons with a total onsite maximum volume of no more than 20,000 gallons. Temporary field storage is addressed in the statement “facilities storing biosolids...under...an environmental permit”. Section 5.1 specifies that as long as biosolids storage is managed in a way that is protective of human health and the environment, approved by Ecology, in compliance with any environmental permits, or the storage meets the definition of “temporary, small-scale storage” (as defined in the second bullet) you are exempt from the biosolids storing requirements of sections 5.2 and 5.3.

#### **COMMENT 45**

##### *6.1 Disposal on an Emergency Basis:*

In the first bullet, we recommend including information that the local health jurisdiction (LHJ) must provide to Ecology, as presented in the 2010 general permit. We also recommend using plain language such as “*the LHJ where the landfill is located*” rather than using the more cumbersome phrases found in the rule (the “local health jurisdiction where the sewage sludge is proposed for disposal” or the “local health jurisdiction in the receiving jurisdiction”). We propose the following statement be used:

*Obtain a written determination from the LHJ where the landfill is located. The determination must state that a potentially unhealthful circumstance exists under present conditions of management or would result from land application, and that other management options are unavailable or would pose a threat to human health or the environment.*

Rationale: The new general permit has eliminated the description of information that must be obtained from the local health jurisdiction (LHJ), and there is no reference to WAC 173-308-300(7) where this information is found. Re-inserting this information in the permit would add clarity for permit holders.

We further request that the new requirement to “obtain written approval from Ecology that disposal is an acceptable option” be removed from this section of the general permit.

Rationale: This new addition to the permit is not required in 173-308-300(7) WAC. This additional step may exacerbate an emergency situation. We suggest that the requirement be changed to “*notify Ecology that the facility has initiated the process to obtain approval for disposal.*”

We further recommend that Ecology provide the ability for a facility to identify disposal options and prepare contingency plans (Section 2.4) to dispose of solids in a shorter-term emergency situation.

Rationale: Emergency disposal is defined as up to one year; however, in the county’s experience, an emergency situation may require immediate response (e.g., a spill or off-spec loads), and obtaining written approval from Ecology may be impossible on a weekend or holiday. Contacting a LHJ for a written determination may also prove challenging on weekends or holidays. Having a prepared contingency plan in place would allow for timely emergency response. Such a contingency plan for emergency disposal would also allow for the use of landfills that are located outside of the state and not subject to Ecology rules. As there are limited options for disposal in MSW landfills in Washington State, King County maintains a permit with the Columbia Ridge Landfill in Oregon to be used in the case of emergency. The local health jurisdictions in Oregon have no regulatory authority over landfills and would not be making a determination about acceptance of biosolids into the landfill.

#### **RESPONSE 45**

Comment noted. The municipal solid waste landfills must receive approval from the LHJ to accept the sewage sludge. In turn, the LHJ and Ecology consult to determine if landfill is appropriate, depending upon the circumstances that make it necessary. After which, the LHJ will provide a determination to both the municipal solid waste landfill and the facility disposing of sewage sludge. Ecology will then provide a letter of approval to the facility. To streamline this process for such situations as a spill or weekend/holiday emergency, a contingency plan is required in the new 2015 General Permit where prior approval will be determined in case of such emergencies. When sewage sludge crosses the state line, the sewage sludge is no longer in the jurisdiction of the State. Any sewage sludge crossing state lines becomes subject to the local and state requirements.

#### **COMMENT 46**

##### *6.2 Disposal on a Temporary Basis*

The steps in this section appear to be redundant and should be restructured to be consistent with WAC 173-308-300(8). It is not clear why a facility would need to obtain written approval from Ecology before submitting a plan to Ecology that describes the conditions, steps, and timetable to correct the conditions that make disposal necessary. However, “notifying Ecology” may be an appropriate first step. We recommend that the steps be simplified to:

- *Obtain written approval for disposal from the LHJ where the landfill is located.*
- *Submit a plan for approval to Ecology that includes the following information:*
  - *The conditions that make disposal necessary.*
  - *The steps that will be taken to correct the conditions that make disposal necessary so that disposal will not become a long-term management option.*
  - *Submit a timetable for implementing the steps to be taken to correct the conditions that make disposal necessary.*
  - *Provide Ecology with written approval for disposal from the local health jurisdiction where the landfill is located.*

#### **RESPONSE 46**

Concur. The sequence of required events has been changed to reflect our intentions.

#### **COMMENT 47**

##### *6.3 Disposal on a Long-Term Basis*

This section has been updated from the 2010 permit to more accurately reflect 173-308-300(9). However, the text in the first bullet refers to “a permit issued under this chapter.” It appears that “this chapter” refers to the WAC, and should be revised to say “...state waste discharge permit issued under chapter 90.48 RCW or a *permit issued under WAC 173-308.*”

#### **RESPONSE 47**

Concur. Reference to WAC 173-308 will be added.

#### **COMMENT 48**

Section 8 “We recommend that the introductory part of this section provide more detail and suggest adding language used in the Instruction for Completing the Application for Coverage. Suggested added language is shown below in italics.

You must submit a biosolids sampling plan *that is detailed, including where in the process the biosolids samples will be taken, and how the samples will be handled, stored, and transported. The plan must also address how you intend to meet the requirements in this section.*”

#### **RESPONSE 48**

No change. A sampling and analysis plan template is available from Ecology that addresses where in the process samples will be taken and how samples will be handled, stored and transported. Each facility should consult with their regional coordinator for appropriate sampling based on their individual or unique processes.

#### **COMMENT 49**

Section 8.6 “We recommend that Ecology remove the Table 2 example, expand the example, or add a sentence that describes other types of processes that may be monitored, and refer to the EPA document Control of Pathogens and Vector Attraction Reduction in Sewage Sludge.

Rationale: The example describes only one specific process (static aerated pile composting), which is incomplete because there are other options for meeting pathogen reduction and VAR.”

#### **RESPONSE 49**

Section 8.6 is in regard to Analytical Methods and does not contain Table 2 but contains Table 3. However, Table 2 in Section 8.3 serves as an example of the minimum requirements for one type of monitoring process. The regulations must be used together with the general permit as the general permit is not intended to replace the regulations. This section and the table within have not changed from the 2010 permit.

#### **COMMENT 50**

Table 3. Analysis Methods, Preservation and Holding Times

"We request that these two methods be added for Total Phosphorus: SW-846 6010 (ICP) and SW-846 6020 (ICPMS)."

#### **RESPONSE 50**

No change. SW 846 6010 (ICP) and SW 846 6020 (ICPMS) for analysis of Total Phosphorus are not approved methods per 40 CFR 503, 40 CFR 136 or WAC 173-308.

#### **COMMENT 51**

Section 9.1 "We recommend that Ecology provide a method for an appropriate test for determining percent by volume of recognizable manufactured inerts.

#### **RESPONSE 51**

Comment noted. Ecology developed a relatively simple method that was adapted from 3 sections in TMECC. The method will be provided in a guidance document when the General Permit is issued.

#### **COMMENT 52**

Section 9.2 "We disagree with the new requirement of Table 3 pollutants for background soil sampling. Ecology's Best Management Guidelines (BMGs) "suggest" that trace elements be analyzed prior to biosolids application. We recommend that this analysis remain optional or used only if soil contamination is suspected.

#### **RESPONSE 52**

No change. Testing of Table 3 pollutants in soil at new application sites will provide a baseline for these constituents. This is a new requirement for new application sites only and is not necessary after the initial biosolids application. While the biosolids metals contents are known prior to land application, soil constituents are not known. A baseline soil analysis will establish a means of comparison if future testing is necessary.

#### **COMMENT 53**

Section 9.2 "For the second paragraph of this section, we request that the word "nutrient" be changed to "nitrogen." The sentences would read "*Soil nitrogen levels must be tested prior to each land application event. Background nitrogen levels will be used to calculate the agronomic rate...*"

Rationale: We support the addition of a pre-application nitrogen analysis requirement because soil nitrogen is necessary to calculate an agronomic application rate. Use of this term will maintain consistency between the general permit and 173-308 WAC.

The term "nutrient levels" is vague, and only nitrogen analysis is used to calculate agronomic application rates per 173-308-190 WAC or in EPA 503 rule. While analysis of other nutrients may be useful or necessary in some cases for some crops, it should not be a standard requirement for all land application sites."

#### **RESPONSE 53**

No change. Section 9.2 references WAC 173-308-190 for nutrient testing. While nitrogen is used as a basis for protection of waters of the state, there may be circumstances in which phosphorus or other nutrients must be tested.

#### **COMMENT 54**

Section 9.3 “We recommend adding the word “nitrogen” in discussion of the agronomic requirement: “Biosolids must be applied at an agronomic rate *for nitrogen* in accordance with....”

#### **RESPONSE 54**

No change. The agronomic rate requirements are referenced in this section. All agronomic rates are to be determined in accordance with WAC 173-308-190 which outlines specifications for the protection of waters of the state. *WAC 173-308-190(2) “Agronomic rate determinations must take into account nitrogen supplied from other sources”.*

#### **COMMENT 55**

“There is a typo in Table 4, Table 3 limits for zinc needs is missing the “mg” in mg/kg.”

#### **RESPONSE 55**

Concur. The table has been corrected.

#### **COMMENT 56**

Table 7 states “No application within 100 feet” of surface waters. Both the EPA 503 rule and WAC 173-308-210(5)(b), as well as previous general permits, mandate a minimum 10 meter (33-foot) buffer from surface waters. We recommend that this general permit match the standard of the state and federal rules and that the BMGs or Ecology website be referenced for more detailed guidance on use of buffers. The county has seen no significant effect on surface waters in 25 years of stream water sampling and analysis while following the guidance in the BMGs--guidance that was based on local research and demonstration of the effectiveness of buffers. A mandated 100 feet from all streams could result in the unnecessary exclusion of some application sites. Flooded, frozen, or snow-covered sites – this table in the draft general permit states “No application allowed” followed by a note “unless approved by Ecology.” However, the EPA 503 rule contains the language that biosolids shall not be applied to a “site that is flooded, frozen, or snow-covered *so that the bulk sewage sludge enters a wetland or other waters*” while WAC 173-308 states that “bulk biosolids may not be applied to the land so that they enter a wetland or waters of the state, unless approved in a permit by the department or by EPA with the approval of the department.” In other words, Ecology must approve any application of biosolids that enters a wetland or waters of the state, and normal practice is for the permit holder to prevent movement into these waters.

We recommend that “No application allowed” remain for flooded sites but be removed for frozen and snow-covered sites. In these conditions, Ecology should maintain consistency with the federal and state rules, as King County has practiced safely and effectively for many years. A requirement to Appendix 3 – Site Specific Land Application Plan Content can be added requiring a permit holder to describe how frozen or snow-covered sites will be managed to protect surface waters.”

#### **RESPONSE 56**

No change. Federal and State rule specify the application of biosolids near waters of the state be no less than 33ft (10 meters). This is not a standard but a minimum. The permit states no application within 100 feet\*, where the “\*” means unless a different buffer is approved or required by Ecology. This is not a mandate; however, anyone wishing to apply biosolids at the minimum buffer must seek approval from their regional biosolids coordinator. While Ecology appreciates the efforts of all facilities to run good programs, not all land application sites are run identically to each other.

Ecology will determine if a buffer of 33 feet is appropriate based upon soil type, slope, vegetative cover and water body type. The BMGs provide guidelines for buffers to water in the following tables for both agricultural and forest applications and should be used if approval from Ecology for a lesser buffer has not been provided prior to land application.

Land application of biosolids during winter months will be determined on a case by case basis and included in a SSLAP upon request. Table 7 in Section 9.7.3 does not allow for land application of biosolids on flooded, frozen or snow covered sites unless approved by Ecology. This is consistent with 40 CFR 503.14(b).

For agricultural sites the BMGs recommend buffers based on soil and vegetative cover as follows:

Application Method	Ground Surface Cover	Slope Effect Suitability Rating (Table 4.6)	Type of Water Body		
			River, Lake or Stream	Seasonal	Ditch
			Buffer width, feet		
Surface	Bare Soil	Poor/Fair	200	100	50
		Good/Excellent	100	50	33
Surface	Permanent Vegetative cover	Poor/Fair	100	50	33
		Good/Excellent	50	33	33
Injected or Incorporated	Bare Soil	Poor/Fair	100	50	33
		Good/Excellent	50	33	33

For forest sites, the BMGs recommend buffers based on the condition of the buffer area as follows:

Application Method	Type of Water Body		
	River, Lake, or Stream	Seasonal	Ditches
Surface applied:			
Undisturbed buffer	100	50	33
Disturbed buffer	200	100	50
Injected or incorporated	100	50	33

**COMMENT 57**

Section 10 “The first paragraph of this section has been plain talked, but we think that reinforcing the concept of exceptional quality biosolids is important and that anyone managing biosolids should understand it. We suggest that this paragraph be combined with the wording in 12.3 in the 2010 General Permit to read:

*Any biosolids sold or given away must meet the requirements for exceptional quality biosolids. This means they must meet the pollutant concentration limits in Table 3 of WAC 173-308-160, one of the Class A pathogen reduction requirements in WAC 173-308-170, and one of the vector attraction reduction requirements in WAC 173-308-180.”*

**RESPONSE 57**

Concur. The statement ‘any biosolids sold or given away must meet the requirements for exceptional quality biosolids’ will be added.

**COMMENT 58**

Appendix 3 “Item (1) of the content required for SSLAPs is not applicable if a permit holder is planning to apply biosolids that meet Table 3 limits. The requirement to report information about previous applications of biosolids with pollutants in excess of Table 3 values only applies if you are currently planning to apply biosolids above Table 3 limits, or in other words, biosolids subject to Table 2 cumulative pollutant loading rates. Therefore, item (1) of Appendix 3 is not consistent with the state rule. See WAC 173-308-160 2(b), which reads “Before bulk biosolids subject to the cumulative pollutant loading rates in Table 2 are applied to the land, the person who proposes to apply the bulk biosolids must...determine whether bulk biosolids subject to the cumulative pollutant loading rates were applied to the site...” Also see page 9331 of the Federal Register Vol. 58 No. 31: Preamble to the 503 rule for a background discussion of this requirement.

We suggest that the first line of item (1) be modified to: “If you are planning to apply biosolids subject to Table 2 cumulative pollutant loading rates, you must determine....” and then list the 4 bulleted items.”

**RESPONSE 58**

No change. There may be instances where biosolids were land applied prior to the state program. What is being asked in Appendix 3 number 1 is if it is know whether or not biosolids exceeding table 3 limits may have been land applied on the site the SSLAP is being written for. If no biosolids exceeding table 3 limits have ever been applied, the statement given should be “to the best of our knowledge, no biosolids exceeding table 3 limits have been applied to this site”.

**COMMENT 59**

“...To summarize, we think there should be a limit on gallons and years of application. The saturation of land will ultimately get into our ground water. We would also like quarterly testing on soil, creeks and our drinking water by the DOE.”

**RESPONSE 59**

Comment noted. The state (and federal) biosolids regulations impose cumulative pollutant loading limits (WAC 173-308-160 Table 2) at sites if any of the pollutants in the applied biosolids are above the limits listed in WAC 173-308-160 Table 3. This is not a limit on the number of years biosolids can be applied, but it is a limit on the amount of pollutants that can be added to a site. These limits are ‘risk-based’ and were developed during the comprehensive risk assessment the US Environmental Protection Agency (EPA) conducted prior to issuing the federal biosolids rule in 1993. The risk-based limits have been upheld following significant scrutiny and numerous reevaluations over the years. If necessary, Ecology may conduct testing of soils, groundwater, and surface water.

**COMMENT 60**

(Summarized) This comment is about the land application of Class A biosolids and a concern for the health effects it is causing a family that lives near the application site. The comment also references a letter, addressed to the county commissioners, signed by 30 members of the community. A copy of the letter to the commissioners was included, the signatories were not.

**RESPONSE 60**

Comment noted. The comments are all applicable to a specific site rather than the general permit. Land application of Class A biosolids is an approved activity that does not require permitting per 40 CFR 503 and Chapter 173-308 WAC.

# Appendix A

The following are all comments submitted during the open comment period for the Draft General Permit for Biosolids Management as received by Ecology.

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Good morning Rebecca,

The Tacoma-Pierce County Health Department (TPCHD) has reviewed the 2015 *Draft General Permit for Biosolids Management*. Overall, the TPCHD concurs with the content of the new General Permit to be issued by Ecology. Below are a couple of questions/comments for consideration.

- 1) Section 1.3 – Ecology’s *Summary of Changes between the 2010 and 2015 version of the General Permit for Biosolids Management* states that WAC 173-308 does not apply to biosolids activities that occur on federal facilities. Can Ecology clarify why this change is required in the new General Permit and the consistency of the applicability of solid and dangerous waste regulations (WAC 173-303, WAC 73-304, WAC 173-350, WAC 173-351) to federal facilities?
- 2) Section 9.2 and Section 11.2 Soil Testing – The TPCHD is not opposed to this new requirement. However, the TPCHD recommends that the General Permit provide soil testing protocols or soil testing guidance so that it is clear how and when such samples are to be collected. For example, can a soil sample be collected from the bottom of a four-foot hole in order to comply with this requirement?

Also, for the background metals, depending where and how deep they are collected, what are the ramifications if there are elevated metals at a proposed land application site? I am thinking in relation of uncontrolled impacts to the land from fallout of the old Tacoma Smelter (arsenic and lead), for example.

- 3) Table 7 and Table 10 – The TPCHD recommends listing the restrictions for the grazing of livestock and domestic animals after biosolids or septage have been land applied.

Thank you for the opportunity to comment.

## David Bosch

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Please include SW-846 Method 7473 for the analysis of Mercury as an approved method in Table 3 Analysis Methods, Preservation and Holding Times

Lori Zboralski  
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City of Tacoma  
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Rebecca,

I appreciate the opportunity to review the draft permit. I would like to submit the following comment on the proposed General Permit for Biosolids Management:

- Page 20, Section 9.2 Soil Testing, 1<sup>st</sup> Paragraph  
This subsection is very general compared to other subsections (for example 9.7 Site Management and Public Access Restrictions for Class B Biosolids). I would recommend including the exemptions for exceptional quality biosolids.

Thank you for your time.

Best Regards,

*Jessica Shaw*  
Environmental Manager  
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Wenatchee, WA 98801  
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### NW Biosolids Comments on Draft Permit for Biosolids Management

(suggested additions or edits in orange)

Section	Topic	Page	Comment
1.2	Use of terms Activities	5	Listing the permit sections that apply to certain categories of biosolids is helpful. For further clarification, Ecology could list the sections that apply to EQ/Class A biosolids and the sections that apply only to nonexceptional quality biosolids. Areas of possible confusion between EQ/nonEQ include sections 1.5, 2.5, and 9.
1.5	Subject to Coverage	6	We suggest adding " <i>nonexceptional quality</i> " bulk biosolids to this first bullet and " <i>exceptional quality</i> " to the fourth bullet.
2.5.1	Public Notice Requirements	9	Headings in these sections are confusing because they do not include the words "nonexceptional quality." As written, it appears that EQ biosolids are also subject to the public notices in this section. This would be imposing new requirements for EQ biosolids. We request that 2.5.1 be re-titled " <i>Wastewater Treatment Plants That Do Not Land Apply Nonexceptional Quality Biosolids.</i> "
2.5.2	Public Notice Requirements	9	Similar comment as previous. To maintain consistency with the rule and for clarity, we suggest that 2.5.2 be re-titled " <i>Wastewater Treatment Plants that Land Apply Nonexceptional Quality Biosolids.</i> "
2.5.1	Public Notice Requirements	9	We also recommend that the first paragraph in 2.5.1 include further clarification and read as follows: "If your facility met the public notice requirements under the previous general permit (and you have documentation to show this) and you do not land apply <i>nonexceptional quality</i> biosolids, you are not required to conduct additional public notice. <i>This includes facilities that produce only exceptional quality biosolids and facilities that send their biosolids to a Beneficial Use Facility or composting facility.</i> "

2.5.1, 2.5.2, 2.5.3	Interested Parties List	9,10	Each of these sections refers to "approved interested parties list." Approval of the list by Ecology is a new concept in this permit; the previous permit required agencies to keep an "official" list. Two comments: (1) there is no previous mention of the list; it is not included in the glossary and is defined only in Appendix 1 Public Notice Content. Recommend that a reference to App. 1 be included. (2) there is no mention anywhere in the rule or permit about how the list is approved or why it needs to be approved.
3.1	Duty to Comply	11	We request that the permit contain more clarification of the statement "Permit conditions remain in effect even if you file a request to modify, revoke and reissue, or terminate coverage under this permit or notify Ecology of planned changes or anticipated noncompliance." Without clarification or reference to WAC 173-308-310(23), there is an implication that coverage under the permit cannot be modified.
3.2	Continuing Coverage	11	We suggest that this sentence from the 2010 permit be re-inserted <i>"If you have been covered under this permit, you are automatically covered under a new general permit issued by Ecology when you submit a Notice of Intent and apply for coverage under a new permit in accordance with WAC 173-308-310(3)-(5)."</i> We think it is important to be consistent with the rule and to clarify in the permit that a facility can have provisional approval for their biosolids management activities even if Ecology has not yet issued a final approval letter.
3.3	Need to Halt...Not a Defense	11	This sentence is unclear to us. We suggest that the sentence from the 2010 permit be used as a replacement in this section: <i>"It is not a defense for a permit holder in an enforcement action to argue that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit."</i>
3.9.2	Noncompliance	12	The final bullet in this list (about submitting a report within 14 days) is an instruction, not a point that should be covered in the report. It should be taken out of the list. This statement also contradicts the earlier statement in this paragraph that a written explanation should be submitted within 5 days of the noncompliance. If Ecology intends to require a written explanation at 5 days and a report at 14 days, then this sentence could be modified to say, "A <i>final</i> report must be submitted to Ecology no later than 14 calendar days following the incident <i>or by a later date approved by Ecology.</i> " Depending on the type of noncompliance, more than 14 days may be required for data analysis or other fact-finding.
3.9.2	Noncompliance	12	The 2010 permit differentiated between Significant Noncompliance (endangering human health or the environment), which required self-reporting within 24 hours and Other Noncompliance, which required self-reporting within 5 days. The 2015 draft permit only refers to noncompliances which may endanger human or the environment. We request that Ecology re-instate the category of Other Noncompliance with its 5-day reporting requirement.
3.13	Final Coverage	13	To be consistent with WAC 173-308-310 (19), we request that Ecology re-insert the explanation/justification found in the state rule for imposing additional permit requirements. The sentence would read "On a case by case basis, Ecology may impose requirements that are in addition to or more stringent than the requirements in the permit <i>if Ecology believes that the requirements are necessary to protect public health or the environment from any adverse effect of a pollutant in the biosolids or to ensure compliance with the biosolids rule.</i> "

5.1	Storing Biosolids	14,15	<p>This section refers to only 2 types of temporary storage as acceptable: lagoons and tanks. The logic present in WAC-173-308-280 is missing. That section of the rule states that temporary, small scale storage on land for less than 2 years is exempt from Solid Waste rules for design/construction/operation of impoundments if the biosolids are stored in a manner that is unlikely to result in the contamination of ground water, surface water, air, or land under current conditions or in the case of fire or flood. We request that Ecology place the language from the rule into the general permit under section 5.1 Exemptions. Without this addition, there is no language in the permit that explicitly addresses temporary storage of biosolids on land.</p> <p>The phrase "obtain a written determination" is too vague and does not include the detail contained in WAC 173-308-300(7). We suggest "<i>Obtain a written determination from the LHJ where emergency disposal will take place. This determination must state that other management options are unavailable or would result in an unhealthy condition for human health or the environment.</i>"</p>
6.1	Emergency Disposal	15	<p>We request that the requirement in the first bullet--obtaining written approval from Ecology for disposal--be eliminated. Emergency disposal for many facilities is needed as the result of a truck accident or production of biosolids that don't meet the standards for inerts. Written approval from Ecology may be impossible on weekends or holidays.</p> <p>We request that Ecology review the sequence of events in this section. It does not seem logical to be required to obtain written approval from Ecology before the plan is submitted for approval. We suggest editing the first bullet to say something like "<i>notify Ecology that temporary disposal may be needed and a plan is being prepared.</i>"</p>
6.2	Temporary Disposal	15	
8.3	Process Monitoring	17	<p>The inclusion of Table 2 is confusing because it provides an example of only one of many methods of pathogen reduction and VAR. This section would be more clear without the table.</p>
8.6	Analytical Methods	18	<p>Analysis for chromium VI seems inappropriate for biosolids. Chromium VI is reduced to nontoxic chromium III when in contact with organic matter. Ecology and EPA rules do not require monitoring for VI.</p>
9.2	Soil Testing	20	<p>Please include SW-846 Method 7473 for the analysis of Mercury as an approved method in Table 3 Analysis Methods, Preservation and Holding Times</p> <p>The requirement to test all new land application sites for metals is a new requirement in the general permit. Ecology's Best Management Guidelines only suggest this analysis. It's not clear why this would be required at all sites when the metal content of the biosolids is known and was determined by EPA to be protective even after repeated applications. This pre-application sampling is primarily information for the landowner and biosolids generator to understand background conditions of their site.</p>
9.2	Soil Testing - N	20	<p>We request that Ecology specifically identify nitrogen as the only nutrient required to be tested in soils prior to each application. And remove the word "nutrients" from this section. Agronomic application rates are based solely on nitrogen, not other nutrients (WAC 173-308-190 and the EPA 503 rule).</p>
9.3	Agronomic Rate		<p>We suggest adding "nitrogen" in discussion of the agronomic requirement: "Biosolids must be applied at an agronomic rate <i>for nitrogen</i> in accordance with..."</p> <p>This is for clarity and consistency with the state and federal rules.</p>

			We request that the restriction of "no application within 100 feet" of surface waters be returned to the standard <i>"no application within 33 feet (10 meters)"</i> required in previous general permits, the state rule and the federal 503 rule. The BMGs contain detailed recommendations on buffers for surface waters that were based on field research; this Ecology publication should be referenced by asterisk for additional information. One NW Biosolids member has been protecting surface waters near biosolids application sites successfully for more than 25 years using these recommended and variable buffer widths. A blanket prescription of 100 feet ignores the research and operational experience that went into the BMG recommendations and may make many good application sites infeasible. For consistency with the federal and state biosolids rules, we suggest Ecology change its "no application allowed" for frozen or snow-covered sites to a statement that <i>"bulk biosolids may not be applied to the land so that they enter a wetland or waters of the state, unless approved in a permit by the department or by EPA with the approval of the department (WAC-173-308. Permittee's Site-Specific Land Application Plan must describe in detail how biosolids application to frozen or snow-covered ground would be managed to protect wetlands and other surface waters."</i>
9.7.3	Table 7 - Surface Waters	23	
9.7.3	Table 7 - Frozen and Snow-Covered Sites	23	
10	Requirements for Selling/Giving Away in Bags or Containers	23	For more clarity, this section needs a sentence that simply says biosolids distributed in this way must be EQ. We suggest: <i>"Any biosolids sold or given away must meet the requirements for exceptional quality biosolids. This means they must meet the pollutant concentration limits in Table 3 of WAC 173-308-160, one of the Class A pathogen reduction requirements in WAC 173-308-170, and one of the vector attraction reduction requirements in WAC 173-308-180."</i>
Appendix 3		31	Item (1) of the content required for SSLAPs is <u>not applicable</u> if a permittee is planning to apply biosolids that meet Table 3 limits. The requirement to report information about previous applications of biosolids with pollutants in excess of Table 3 values only applies if you are currently planning to apply biosolids above Table 3 limits, or in other words, biosolids subject to Table 2 cumulative pollutant loading rates. See WAC 173-308-160 2(b), which reads "Before bulk biosolids subject to the cumulative pollutant loading rates in Table 2 are applied to the land, the person who proposes to apply the bulk biosolids must...determine whether bulk biosolids subject to the cumulative pollutant loading rates were applied to the site..."

**Comments from King County Wastewater Treatment Division on Ecology’s Draft General Permit for Biosolids Management - 2015**

**Section 1. Overview of the General Permit for Biosolids Management**

**1.2 Use of the terms “Sewage Sludge”, “Biosolids”, and “Septage”**

We suggest adding “composting toilets” to the sentence about septage. There is growing interest in the use of composting toilets, and there is confusion about the management and regulation of those solids. WAC 173-308-193 is specific about this issue and it would be helpful to include this information in the permit and its glossary. The revised sentence would read: “Septage is a class of biosolids that comes from septic tanks, *composting toilets*, and similar systems receiving domestic wastes (*see definition of septage in glossary of terms*).”

**1.4 Persons Required to Apply for Coverage under this Permit**

Syntax correction: “Composting facilities that compost non-exceptional quality biosolids that *and* do not have a permit meeting state program requirements as determined by Ecology.” It’s the facilities that don’t have the correct permit, not the biosolids. Also it’s not clear which state program requirements are not being met – the biosolids program? For clarity, rewrite as “*state biosolids program requirements*.”

## **Section 2. Applying for Coverage under this Permit**

### **2.5 Public Notice Requirements When Applying for Coverage**

We find the new language in this section to be confusing because it does not distinguish between exceptional quality (EQ) and nonexceptional quality biosolids. In the 2010 General Permit, the public notice requirements were specific about facilities that did or did not land apply nonexceptional quality biosolids. The 2015 General Permit omits the term “nonexceptional quality” in 2.5.1 and 2.5.2, implying that all biosolids—regardless of category—that are land applied will be subject to the same public notice requirements. If this is the intent, then Ecology is imposing new requirements for EQ biosolids. Under state and federal rules, EQ biosolids, with their Class A pathogen destruction, low metals, and VAR, have been managed the same as off-the-shelf soil amendments with user instructions and without the producer’s management restrictions required for nonexceptional quality biosolids.

We request that 2.5.1 and 2.5.2 be re-titled to be specific for “*nonexceptional quality biosolids.*”

Rationale: Keeps permit language consistent with language in WAC 173-308-310(13) and previous general permits.

Maintaining the same language in the permit and the rule will reduce confusion for permit holders.

We further recommend that this language from the 2010 permit (3.5.2) be added as the second sentence in 2.5.1: “*This includes facilities that produce only exceptional quality biosolids and facilities that send their biosolids to a Beneficial Use Facility or compost facility.*”

Rationale: Without this addition, the public notice process for facilities that compost or produce EQ biosolids is not explicitly covered in the permit.

In 2.5.1, 2.5.2, and 2.5.3, there are references to submitting an “official interest [sic] parties list” to Ecology’s biosolids coordinators. This is the first time this list is mentioned in the permit, and it is not in the glossary. The only definition is found in Appendix 1, (7). This reference needs to be inserted.

Also, in 2.5.1 through 2.5.3, the phrase “approved interested parties list” appears. This concept is new to this permit. But there is no information about how the list is approved or why it needs to be approved. Is Ecology going to add people to the list, reject lists that are too small, or make other modifications? Since people can join the interested parties list by responding to the public notice, then we can expect that the pre-public notice list might be small.

## **Section 3. Requirements Applicable to all Permittees**

### **3.1 Duty to comply**

The text states “Permit conditions remain in effect even if you file a request to modify, revoke and reissue, or terminate coverage under this permit or notify Ecology of planned changes or anticipated noncompliance.”

If a modification is requested, steps that Ecology will take to review and approve that modification should be outlined. We also suggest a reference to WAC 173-308-310(23). Are such modifications given provisional approval (WAC 173-308-310 18(a))? We suggest Ecology notify the facility of its approval process and schedule and relay its decision to the facility in a timely manner. Without clarification or reference to the process outlined in the rule, there is an implication that coverage under the permit cannot be modified.

### **3.2 Continuing Coverage and Duty to Reapply**

The draft permit has removed the following language used in the 2010 permit:

“If you have been covered under this permit, you are automatically covered under a new general permit issued by Ecology when you submit a Notice of Intent and apply for coverage under a new permit in accordance with WAC 173-308-310(3)-(5).” It is unclear whether this omission represents a change in Ecology’s procedures, or if the sentence was dropped as a plain talk improvement. We recommend re-inserting this statement because it adds clarity to the permit process and automatic provisional approval for biosolids management activities prior to a facility’s receipt of a final approval letter, in accordance with WAC 173-308-310 (18)(a).

### **3.3 Need to Halt or Reduce Activity Not a Defense**

This title and the text are confusing. Is the intended meaning between the 2010 and 2015 permit language the same? The 2010 permit read: “It is not a defense for a permit holder in an enforcement action to argue that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.” This version is has more detail than the sentence proposed in 2015, but we think this section should be revised with informative, plain language. The example given in the Summary of Changes does not seem to apply to the activities of the biosolids general permit.

#### **3.9.2 Noncompliance**

We discovered errors or inconsistency in this section that likely resulted from combining the Significant Noncompliance and Other Noncompliance sections of the 2010 general permit.

The final bullet point, “Submit report no later than 14 calendar days following the incident” appears to be an instruction on when to submit a report, not a point that should be covered in the report. However, the first paragraph states that a written explanation should be submitted within 5 days.

The language in the 2010 permit more clearly differentiates between Significant Noncompliance and Other Noncompliance and thus, the rationale for notifying Ecology within 24 hours (for Significant Noncompliance) or within 5 days (for Other Noncompliance). The previous permit allowed for options for notifying Ecology: orally, in writing, or as requested by Ecology.

If Ecology does not reinstate the previous language, we recommend that the requirement for a written report be changed to “*not later than 14 days following the incident or by a later date approved by Ecology.*”

### **3.13 Final Coverage: Additional or More Stringent Requirements**

We recommend that Ecology use the language from the previous permit that was dropped from the first sentence in this section (in italics): “On a case by case basis, Ecology may impose requirements that are in addition to or more stringent than the requirements in this *permit if Ecology believes that the requirements are necessary to protect public health or the environment from any adverse effect of a pollutant in the biosolids or to ensure compliance with this permit.*”

Rationale: This statement is found in WAC 173-308-310(19), and we recommend that Ecology continue to use it in the permit to specify that Ecology must justify additional or more stringent requirements based on a demonstrated need to protect the environment and human health.

## **Section 4. Requirements for Transporting Biosolids**

### **4.1 Spill Prevention/Response Plan**

We recommend adding the word “contractual” in the second sentence, so that the sentence would read as follows, “The plan may be from either the sending or receiving facility, whichever has *contractual* responsibility for the transfer.” This emphasizes that permit holders need to have these responsibilities clearly defined.

In the first bullet, we recommend removing the words “any possible” with respect to alternate routes. King County works diligently with its transportation contractor to determine the safest, most economical and community-friendly routes for transporting biosolids. A list of *any possible* alternate routes could include routes that are less desirable, while limiting the plan to only specific routes may not allow adequate flexibility in the event of weather, road conditions, detours, etc.

## **Section 5. Requirements for Storing Biosolids**

WAC 173-308-280 states that “Facilities storing biosolids...under...an environmental permit and facilities **conducting temporary, small-scale storage**...are exempt from this section if the department determines that the standards (of non-contamination of the environment) are being met.” This concept/approval of small temporary storage options has been lost or omitted from the current draft permit except in connection with lagoons and tanks. The temporary field storage commonly used in this state is not addressed at all, except with the new phrase “...and with approval from the regional coordinator.” To restore and clarify this important option, we suggest the following changes:

### **5.1 Exemptions**

The first sentence should not be bulleted. We have no comments on the remaining two bullets; however, we recommend adding one new bullet point that would read:

- *Your land application practices include other methods of small scale storage that are approved by the regional coordinator and have a duration of 2 years or less as defined in the glossary of this permit, unless a longer period is approved by Ecology.*

## **Section 6. Requirements for Disposal of Sewage Sludge in a Municipal Solid Waste Landfill**

### **6.1 Disposal on an Emergency Basis**

In the first bullet, we recommend including information that the local health jurisdiction (LHJ) must provide to Ecology, as presented in the 2010 general permit. We also recommend using plain language such as “*the LHJ where the landfill is located*” rather than using the more cumbersome phrases found in the rule (the “local health jurisdiction where the sewage sludge is proposed for disposal” or the “local health jurisdiction in the receiving jurisdiction”). We propose the following statement be used:

*Obtain a written determination from the LHJ where the landfill is located. The determination must state that a potentially unhealthful circumstance exists under present conditions of management or would result from land application, and that other management options are unavailable or would pose a threat to human health or the environment.*

Rationale: The new general permit has eliminated the description of information that must be obtained from the local health jurisdiction (LHJ), and there is no reference to WAC 173-308-300(7) where this information is found. Re-inserting this information in the permit would add clarity for permit holders.

We further request that the new requirement to “obtain written approval from Ecology that disposal is an acceptable option” be removed from this section of the general permit.

Rationale: This new addition to the permit is not required in 173-308-300(7) WAC. This additional step may exacerbate an emergency situation. We suggest that the requirement be changed to “*notify Ecology that the facility has initiated the process to obtain approval for disposal.*”

We further recommend that Ecology provide the ability for a facility to identify disposal options and prepare contingency plans (Section 2.4) to dispose of solids in a shorter-term emergency situation.

Rationale: Emergency disposal is defined as up to one year; however, in the county’s experience, an emergency situation may require immediate response (e.g., a spill or off-spec loads), and obtaining written approval from Ecology may be impossible on a weekend or holiday. Contacting a LHJ for a written determination may also prove challenging on weekends or holidays.

Having a prepared contingency plan in place would allow for timely emergency response. Such a contingency plan for emergency disposal would also allow for the use of landfills that are located outside of the state and not subject to Ecology rules. As there are limited options for disposal in MSW landfills in Washington State, King County maintains a permit with the

Columbia Ridge Landfill in Oregon to be used in the case of emergency. The local health jurisdictions in Oregon have no regulatory authority over landfills and would not be making a determination about acceptance of biosolids into the landfill.

### **6.2 Disposal on a Temporary Basis**

The steps in this section appear to be redundant and should be restructured to be consistent with WAC 173-308-300(8). It is not clear why a facility would need to obtain written approval from Ecology before submitting a plan to Ecology that describes the conditions, steps, and timetable to correct the conditions that make disposal necessary. However, “notifying Ecology” may be an appropriate first step. We recommend that the steps be simplified to:

- *Obtain written approval for disposal from the LHJ where the landfill is located.*
- *Submit a plan for approval to Ecology that includes the following information:*
  - o *The conditions that make disposal necessary.*
  - o *The steps that will be taken to correct the conditions that make disposal necessary so that disposal will not become a long-term management option.*
  - o *Submit a timetable for implementing the steps to be taken to correct the conditions that make disposal necessary.*
  - o *Provide Ecology with written approval for disposal from the local health jurisdiction where the landfill is located.*

### **6.3 Disposal on a Long-Term Basis**

This section has been updated from the 2010 permit to more accurately reflect 173-308-300(9). However, the text in the first bullet refers to “a permit issued under this chapter.” It appears that “this chapter” refers to the WAC, and should be revised to say “...state waste discharge permit issued under chapter 90.48 RCW or a *permit issued under WAC 173-308.*”

## **Section 8. Requirements for Analyzing Biosolids and Monitoring Processes**

We recommend that the introductory part of this section provide more detail and suggest adding language used in the Instruction for Completing the Application for Coverage. Suggested added language is shown below in italics.

You must submit a biosolids sampling plan *that is detailed, including where in the process the biosolids samples will be taken, and how the samples will be handled, stored, and transported. The plan must also address how you intend to meet the requirements in this section.*

### **8.3 Frequency of Process Monitoring**

We recommend that Ecology remove the Table 2 example, expand the example, or add a sentence that describes other types of processes that may be monitored, and refer to the EPA document Control of Pathogens and Vector Attraction Reduction in Sewage Sludge.

Rationale: The example describes only one specific process (static aerated pile composting), which is incomplete because there are other options for meeting pathogen reduction and VAR.

### **8.6 Analytical Methods**

We recommend that Ecology clearly indicate which parameters are required for testing under the WAC/General Permit and which parameters are optional. This could be done by putting them in separate tables, by arranging with required parameters at the top of the list, or by placing an asterisk next to them.

We would like to understand why chromium VI is included in this list. EPA does not require monitoring of total chromium or chromium VI. Also, it is well known that chromium VI is reduced to chromium III by the high content of total organic carbon in biosolids. We suggest that chromium VI be replaced by total chromium and placed in the optional list.

### **Table 3. Analysis Methods, Preservation and Holding Times**

We request that these two methods be added for Total Phosphorus: SW-846 6010 (ICP) and SW-846 6020 (ICPMS).

## **Section 9. Requirements for Biosolids Applied to Agricultural Land, Forest Land, Public Contact Sites, or Land Reclamation Sites**

### **9.1 Removing Manufactured Inerts**

We recommend that Ecology provide a method for an appropriate test for determining percent by volume of recognizable manufactured inerts.

### **9.2 Soil Testing**

We disagree with the new requirement of Table 3 pollutants for background soil sampling. Ecology’s Best Management Guidelines (BMGs) “suggest” that trace elements be analyzed prior to biosolids application. We recommend that this analysis remain optional or used only if soil contamination is suspected.

Rationale: If Ecology wishes to impose this requirement on all land application sites, scientific justification should be provided. Sampling for background levels of pollutants in soils is not required by WAC 173-308 or by 40 CFR 503, and the additional cost for analysis of soils from all land application sites is unwarranted. In more than 25 years of analyzing soils in hundreds of acres of forest and agriculture sites, King County has not encountered any unusual background metal concentrations.

For the second paragraph of this section, we request that the word “nutrient” be changed to “nitrogen.” The sentences would read “*Soil nitrogen levels must be tested prior to each land application event. Background nitrogen levels will be used to calculate the agronomic rate...*”

Rationale: We support the addition of a pre-application nitrogen analysis requirement because soil nitrogen is necessary to calculate an agronomic application rate. Use of this term will maintain consistency between the general permit and 173-308 WAC.

The term “nutrient levels” is vague, and only nitrogen analysis is used to calculate agronomic application rates per 173-308-190 WAC or in EPA 503 rule. While analysis of other nutrients may be useful or necessary in some cases for some crops, it should not be a standard requirement for all land application sites.

### **9.3 Agronomic Rate**

We recommend adding the word “nitrogen” in discussion of the agronomic requirement: “Biosolids must be applied at an agronomic rate *for nitrogen* in accordance with....”

### **9.4 Pollutants**

There is a typo in Table 4, Table 3 limits for zinc needs is missing the “mg” in mg/kg.

#### **9.7.3 Additional Site Management Restrictions – Table 7**

Table 7 states “No application within 100 feet” of surface waters. Both the EPA 503 rule and WAC 173-308-210(5)(b), as well as previous general permits, mandate a minimum 10 meter (33-foot) buffer from surface waters. We recommend that this general permit match the standard of the state and federal rules and that the BMGs or Ecology website be referenced for more detailed guidance on use of buffers. The county has seen no significant effect on surface waters in 25 years of stream water sampling and analysis while following the guidance in the BMGs--guidance that was based on local research and demonstration of the effectiveness of buffers. A mandated 100 feet from all streams could result in the unnecessary exclusion of some application sites.

Flooded, frozen, or snow-covered sites – this table in the draft general permit states “No application allowed” followed by a note “unless approved by Ecology.” However, the EPA 503 rule contains the language that biosolids shall not be applied to a “site that is flooded, frozen, or snow-covered *so that the bulk sewage sludge enters a wetland or other waters*” while WAC 173-308 states that “bulk biosolids may not be applied to the land so that they enter a wetland or waters of the state, unless approved in a permit by the department or by EPA with the approval of the department.” In other words, Ecology must approve any application of biosolids that enters a wetland or waters of the state, and normal practice is for the permit holder to prevent movement into these waters.

We recommend that “No application allowed” remain for flooded sites but be removed for frozen and snow-covered sites. In these conditions, Ecology should maintain consistency with the federal and state rules, as King County has practiced safely and effectively for many years. A requirement to Appendix 3 – Site Specific Land Application Plan Content can be added requiring a permit holder to describe how frozen or snow-covered sites will be managed to protect surface waters.

### **Section 10. Requirements for Biosolids Sold/Given Away in Bags in Other Containers**

The first paragraph of this section has been plain talked, but we think that reinforcing the concept of exceptional quality biosolids is important and that anyone managing biosolids should understand it. We suggest that this paragraph be combined with the wording in 12.3 in the 2010 General Permit to read:

*Any biosolids sold or given away must meet the requirements for exceptional quality biosolids. This means they must meet the pollutant concentration limits in Table 3 of WAC 173-308-160, one of the Class A pathogen reduction requirements in WAC 173-308-170, and one of the vector attraction reduction requirements in WAC 173-308-180.*

### **Appendix 3.**

Item (1) of the content required for SSLAPs is not applicable if a permit holder is planning to apply biosolids that meet Table 3 limits. The requirement to report information about previous applications of biosolids with pollutants in excess of Table 3 values only applies if you are currently planning to apply biosolids above Table 3 limits, or in other words, biosolids subject to Table 2 cumulative pollutant loading rates. Therefore, item (1) of Appendix 3 is not consistent with the state rule. See WAC 173-308-160 2(b), which reads “Before bulk biosolids subject to the cumulative pollutant loading rates in Table 2 are applied to the land, the person who proposes to apply the bulk biosolids must...determine whether bulk biosolids subject to the cumulative pollutant loading rates were applied to the site...” Also see page 9331 of the Federal Register Vol. 58 No. 31: Preamble to the 503 rule for a background discussion of this requirement.

We suggest that the first line of item (1) be modified to: “*If you are planning to apply biosolids subject to Table 2 cumulative pollutant loading rates, you must determine....*” and then list the 4 bulleted items.

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Rebecca Singer -State Biosolids Coordinator  
Department of Ecology  
P.O. Box 47600  
Olympia, WA 98504-7600  
Email: rebecca.singer@ecy.wa.gov  
Phone: 360-407-6108

I am writing, on behalf of *Residents Against Biosolids*, in regards to the Kalberg site of dumping by BioRecycling of Centralia. There are a number of concerns, starting with, how much is too much? It seems that 24 years of dumping on the same site would saturate that soil and would affect neighboring water sources. Why is our water not tested by the Department of Ecology? A number of neighbors in our area have an increasing number of stomach disorders, and a few have died from cancer. Is this related? Possibly. How safe is this? And, if it is so safe, maybe they can start dumping in the open field right next to your home. We feel that the dumping is a risk to human health, and if it is not, we would like to see proof of such. Also who is responsible when our water is deemed unsafe for humans?

It is disappointing that the Department of Ecology does not perform the testing, but allows BioRecycling to do their own tests. Who is regulating and governing the “safe practices” of BioRecycling’s actions? Everything and document that I have read BioRecycling regulates themselves. We would like to see testing done quarterly.

We are also concerned about the cattle that eat the grass on this land, and the hay that is harvested from this land. There is a 30 day wait period after dumping, to return the cattle to the field. This is not always followed. Then, who eats this beef? Are the consumers informed of the source? Toilet to field in 24 hours does not seem like a safe practice. This is contaminated beef. We feel that the Kalberg site has become the dumping ground for Lewis and Thurston counties. In the last 24 years they have dumped at least 5,529,600,000 gallons of biosolids in our neighborhood. We have been asking DOE and BioRecycling to find a new place to dump for over 8 years with no results. If biosolids is such a great source of fertilizer, it seems like it would be in high demand and spread everywhere.

To summarize, we think there should be a limit on gallons and years of application. The saturation of land will ultimately get into our ground water. We would also like quarterly testing on soil, creeks and our drinking water by the DOE. We would also like an answer one if the DOE or BioRecycling will pay to replace our drinking water and health when this happens. Thank you for your consideration of this matter.

Sincerely,  
Joe Frank

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Dear Ms. Singer,

Last Friday, when I contacted Peter Lyons, Regional Manager, Waste 2 Resources Program, he suggested that I forward this information to you. Below please find a short history of concerns, a letter addressed to the Wahkiakum BOCC and an informative editorial from our local newspaper.

I understand that the **deadline for submitting comments regarding the 2015 General Permit, ends June 24, 2015.**

There are **health and nuisance** issues with the spreading of Type A Biosolids on lands in Wahkiakum County.

The concern began for me and my son, Russell Halverson, this month, June 2015. My son and I became ill within a day, of “Type A Biosolids” being dumped in our neighborhood. He had and continues to have symptoms of aggravated allergies, mild to severe headaches and nausea. I, too, have had the nausea accompanied by mild headaches and occasionally stuffed up sinuses leading to severe headaches.

Mr. Halverson spoke with his supervisor at work, because he had become almost too ill to come to work. His supervisor advised Russell, to speak with his county commissioner regarding the health issues he was having due to biosolids being dumped. So Mr. Halverson set up a meeting with Wahkiakum County Commissioner Mike Backman on June 11. He suggested that we, Russell and I, write a letter of concern addressed to the Board of County Commissioners and then get signatures of any neighbors connecting health problems with the dumping of the biosolids or disturbed by the foul odor. We submitted the letter on June 15 to the Wahkiakum Board of County Commissioners. The following day at their regularly scheduled meeting the commissioners addressed the concern. They explained their three year history with this concern and that their efforts to uphold the county ordinance to ban application of biosolids was dismissed at the state level. I do not remember which agency would have done so, but it left them feeling nearly powerless to help all of us. They requested, that I email the letter to the Dept. of Ecology. So please see the letter at the end of this email.

Facility: THREE RIVERS REGIONAL WWTP Permit #BA0037799 has been paying a local resident, Fred Stanley, to take their Type A Biosolids from Cowlitz County to Wahkiakum County. In my understanding, it is on a two year contract.

Commissioner Backman met with Mr. Duane Leaf the next day, at the Three Rivers Regional facility and found out Mr. Leaf had already visited the site of concern. I understand that many calls had been made to Mr. Stanley as I contacted residents door to door with the letter, to ask that him to stop the dumping. They were very upset. I’m not sure, if they had also called

Three Rivers Regional directly. This may have spurred Mr. Leaf to make an inspection of the site. He told Commissioner Backman that he had to get within 15 feet of the piles to smell anything. He blames odor and health concerns, on dust from dirt that had been piled up along a ditch, when excavation was done between February and early May. This would not explain why residents in other parts of the county have voiced similar experiences, when Type A biosolids were dumped in their neighborhoods! (See below the letter, further information on one of those sites.)

Here is the letter which included the signatures of nearly 30 residents, concerned with the dumping of piles and spreading on the surface of Type A Biosolids, which I am forwarding for your attention.

Kay Vik and Russell Halverson  
108 E Sunny Sands Rd  
Cathlamet, WA 98612  
360-849-4426  
[sunnyrose@centurytel.net](mailto:sunnyrose@centurytel.net)  
June 12, 2015

Mike Backman, Daniel L. Cothren, Blair H. Brady  
Commissioners  
Wahkiakum County  
PO Box 586  
Cathlamet, WA 98612

Dear Mike Backman, Daniel L. Cothren, Blair H. Brady:

This is a letter of concern regarding the dumping of **Type A Biosolids** in piles and then spreading it out on top of private land, **in close proximity to** (our, the undersigned) **places of residency**, affecting our health, enjoyment and/or employment.

We understand that these **same concerns have been raised previously in other areas of the county** where Type A Biosolids have been dumped, by Mr. Fred Stanley. He has **cooperated in resolving concerns at two locations on Greenwood Road**. The property owner of land along Greenwood Road, which is leased to Mr. Stanley, in their interest of remaining a “good” neighbor, requested that he remove the Type A Biosolids he had dumped there. So, Mr. Stanley has relocated those piles. Regarding another location on Greenwood Road, Fred Stanley was contacted by W. Lee Nutter telling him to refrain from placing *any* Biosolids on the land that Mr. Stanley uses, which is owned by Mr. Nutter. To our knowledge, he has honored that request, too. **We hope, he will be sensitive and respectful of our concerns along E Sunny Sands Rd, as well.**

We concede that he may be dumping piles of Type A Biosolids close to his residence and has had no personal concerns with it. But we have **discovered** that some of his **neighbors**, living across E Birnie Slough on **Little Island Rd**, are offended by the smell Type A Biosolids coming from Mr. Stanley’s place of residence.

**Our concern** is that Mr. Stanley has now decided to begin dumping Type A Biosolids on his own, unoccupied land along East Sunny Sands Road, directly **across the road from or up (the prevailing) wind from our homes**.

**Some** of us on E Sunny Sands have had **adverse health reactions** and **most** of those we were able to contact, feel our quality of life in and around our own homes has been degraded due to the **offensive smell**. One realtor has stopped showing properties in the area!

We have read that adding Type A Biosolids to farm land can be beneficial and that it *should* cause no concerns for neighbors, *if worked into the ground immediately*. There is no evidence that this has been done. It has been left in piles and/or just spread out on top of the soil. This has caused immediate (within a day of dumping) concerns, for many persons, as noted below.

First, some citizens have experienced **health concerns**. The symptoms range from **respiratory issues, mild to severe headaches, nausea and irritated allergies causing red, swollen and watery eyes along with stuffed up sinuses**. In

response, those persons **must remain confined indoors** with their **windows shut**, even in the summer heat. Russell Halverson, a signatory with health concerns, has **no A/C** in his trailer. This could become a medical emergency, if we have the hot summer that is predicted! Even if he is able to obtain an A/C, he would essentially (along with the other persons with compromised health reactions) become a prisoner in his/their own home. Living along the river on hot summer days, we look forward to the breezes that come up in the early evening, which cool us. We usually throw open all our windows, to also cool down our homes. The fresh air has been our A/C, until now! Mr. Halverson does not relish the idea of having to stay inside his home all summer. He enjoys being outdoors, which is just one of the reasons he loves living here. One I am sure most residents can relate to, as citizens of Wahkiakum County.

One signator has chosen to wear a **face mask when outdoors** to try to protect her health! She made sure we knew that she had purchased a box of them and we could get some from her as needed. But, she and we should not have to resort to such measures!

Second, when this first occurred Mr. Halverson almost called in sick at both his **jobs**. But, he found getting away from his home caused a lessening of his symptoms. Yet, at the end of the day, he needs to come home!

At least **two other persons** feel it may be the cause of their unusually severe headaches, causing one to actually **lose time from their employment** and for the other, as a school district employee to **suffer** through her last three days of work before the summer break. A resident of Cathlamet, who is **employed** in the area, is offended by the smell, when she must be outside.

Third, it hinders those **wishing to be outdoors**. We live in the “country”, where **the air is usually fresh and sweet**. These **fumes are horrible**, like an “open sewer” or “something dead”. It has made persons miserable, as they work in their **gardens**. The prospect of the continuation of this unacceptable **stench** has **put a damper on outdoor plans this summer for personal relaxation, entertaining of family and friends or special events**.

**We request that anyone seeking to dump Type A Biosolids “close” to residences, be told to stop**. Note that the signatures of concerned citizens on pages 3 and 4, show that “close” can be quite a distance. We understand when the wind has shifted, residents on W. Sunny Sands have also been offended by the smell. A **further survey** of the area, would no doubt create a *much* longer list of citizens, *very* unhappy with the situation and the distance impacted would expand extensively! We are looking forward to your response.

Sincerely,

Kay Vik and Russell Halverson

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As noted in the letter above, residents living along **Greenwood Rd in Wahkiakum County** raised similar concerns re Type A Biosolids.

In **March 2015**, the following informative editorial was submitted to the *Wahkiakum County Eagle*, by **Caroline Snyder of North Sandwich, NH**: <http://www.waheagle.com/story/2015/03/12/opinion/not-all-pathogens-in-biosolids-are-killed/9560.html>, regarding the concerns, involving Greenwood Rd residents earlier this year.

To be honest, I did not pay much attention to the problems that the residents on Greenwood were struggling with in March, until it began to affect me personally. They too, suffered **health issues and distress from the foul odors** it emitted.

I hope this is enough information, to begin an **inquiry** into the situations mentioned, **prior to the approval** of the current draft of the proposed **2015 General Permit for Biosolids Management**.

Sincerely,  
Malena Kay Vik

Cc: [johnsonb@co.wahkiakum.wa.us](mailto:johnsonb@co.wahkiakum.wa.us), [ostreimt@co.cowlitz.wa.us](mailto:ostreimt@co.cowlitz.wa.us)