



WASHINGTON STATE  
DEPARTMENT OF  
**E C O L O G Y**

**CONCISE EXPLANATORY STATEMENT**  
**for the**  
**Amendments**  
**to**  
**Chapter 173-308 WAC**  
**Biosolids Management**

**Washington State Department of Ecology**  
**Solid Waste and Financial Assistance Program**  
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## List of Acronyms and Abbreviations

APA	Administrative Procedures Act
BRRAG	Biosolids Rule Revision Advisory Group
BUF	Permitted Biosolids Beneficial Use Facility
CES	Concise Explanatory Statement
DNS	Determination of Nonsignificance
Ecology	Department of Ecology
EPA	U.S. Environmental Protection Agency
EQ	Exceptional Quality
GLAP	General Land Application Plan
GTW	Grease Trap Wastes
NBMA	Northwest Biosolids Management Association
OTS	Order Typing Services
RCW	Revised Code of Washington
RE	Residential Equivalent
SEPA	State Environmental Policy Act
SMF	Septage Management Facilities
SWFAP	Solid Waste and Financial Assistance Program
SSLAP	Site Specific Land Application Plan
TWTDS	Treatment Works Treating Domestic Sewage
VAR	Vector Attraction Reduction
WAC	Washington Administrative Code
WSR	Washington State Register
WWTP	Wastewater Treatment Plant



## CHAPTER 1 INTRODUCTION

### 1.1 Purpose

The Washington Administrative Procedure Act (APA) RCW 34.05 requires that an agency prepare a concise explanatory statement of the rule:

- (i) Identifying the agency's reasons for adopting the rule.
- (ii) Describing the differences between the text of the proposed rule and the text of the rule as adopted, other than editing changes, and stating the reasons for differences.
- (iii) Summarizing all comments received regarding the proposed rule, and responding to the comments by category or subject matter, indicating how the final rule reflects agency consideration of the comments, or why it fails to do so.

*RCW 34.05.325(6)(a)*. The concise explanatory statement must be prepared prior to final rule adoption and must be provided to any person upon request or from whom the agency received comment.

*RCW 34.05.325(6)(a),(b)*. This document constitutes the concise explanatory statement for the amendments to Chapter 173-308 WAC, Biosolids Management. This document relies on documentation found in the rule-making file.

### 1.2 Background

Biosolids are a necessary and unavoidable product of wastewater treatment and contain nutrients essential for plant growth. Biosolids also contain trace amounts of pollutants and some microorganisms, and must be properly treated and managed to protect public health and the environment.

Washington State has its own authority for regulating biosolids. The 1992 State Legislature passed into law a bill which became in part Chapter 70.95J RCW. This chapter recognizes biosolids as a valuable commodity and directs the Department of Ecology (Ecology) to implement a program which maximizes beneficial use of biosolids. Ecology published Chapter 173-308 WAC, Biosolids Management in the spring of 1998.

Ecology's primary role is to provide regulatory oversight and assistance for wastewater treatment plants and other facilities which generate, treat, and use biosolids. The biosolids program is designed to protect public health and the environment while encouraging the beneficial use of a valuable resource. Ecology's biosolids activities include development of laws, regulations, and guidelines; issuance of permits; technical assistance to the regulated community, local jurisdictional health departments, consultants, and members of the public interested in biosolids management issues; and enforcement of the regulations and permits.

### 1.3 Purpose of the Rule Amendments

Ecology is amending Chapter 173-308, Biosolids Management, for the following reasons:

1. **To apply permit process improvements.** The proposed amendments will:
  - Provide exemptions from some requirements for approved research projects.
  - Allow out-of-state producers of biosolids to send biosolids to permitted in-state facilities under a simplified process.
  - Allow a deferral to existing environmental permits for storage of biosolids.
  - Require permit applications to be submitted within 90 days following the issuance of a new general permit.
  - Reduce the number of newspapers notices (when required) from two to one.
  - Not require public notice each permit cycle for facilities that do not land apply nonexceptional quality biosolids if proper notice has previously been conducted.
  - Not require re-posting of land application sites each permit cycle if it was properly done previously.

2. **To address septage management requirements.** The proposed amendments will:
  - Require that all septage management facilities obtain a permit from Ecology.
  - Impose the same site management and access restrictions on all septage applied to the land whether it's been pH-stabilized or not.
  - Allow Ecology to impose a more stringent application rate for mixtures of septage.
3. **To adjust the biosolids fee structure.** The proposed amendments will:
  - Impose a \$600 minimum fee on all facilities required to obtain a permit.
  - Impose a \$1,800 review fee for new facilities.
  - Increase the maximum fee for biosolids beneficial use facilities and other receiving-only facilities from \$2,500 to \$3,000.
  - Provide for a reduced charge for each residential equivalent above 100,000.
4. **To incorporate policy changes and address "general housekeeping" issues.** The proposed amendments will:
  - Require submittal of a spill prevention and response plan if biosolids are transported.
  - Update the analytical methods allowed.
  - Eliminate Alternatives 3 and 4 from the Class A pathogen reduction alternatives.
  - Impose a requirement to remove manufactured inerts by screening or an alternative method.
  - Impose a requirement that land-applied biosolids contain less than one percent of recognizable manufactured inerts.
  - Require all biosolids sold or given away in a bag or other container to meet the exceptional quality standards.
  - "Grandfather-in" existing surface impoundments.
  - Impose Chapter 173-350 WAC standards for new or upgraded surface impoundments.

The anticipated revisions will impact all treatment works treating domestic sewage (TWTDS), including wastewater treatment plants (WWTPs), Septage Management Facilities (SMFs), and biosolids Beneficial Use Facilities (BUFs).

## **1.4 Public Involvement Process**

Ecology conducted an extensive public involvement and outreach effort throughout the rule-making process. In July 2006 Ecology formed the Biosolids Rule Revision Advisory Group (BRRAG). This group consisted of a broad range of stakeholders. Amendments to the rule were drafted by Ecology staff and reviewed by the BRRAG. The BRRAG also discussed and commented on proposed significant changes to the draft rule. The BRRAG met in Ellensburg in July, August, September, and October 2006. In November 2006, the BRRAG was provided a rough draft version of a revised rule for review and comment. Numerous changes were made to the rough draft based on comments received. BRRAG members received a written response to all comments submitted, a list of proposed significant changes to the rule, and a copy of a readable version of the rule at the outset of the public review process.

An electronic list of "interested parties" (ListServ) was developed and located on Ecology's Solid Waste website. Persons interested in receiving information on the rule development process signed-up to receive up-to-date information through this list. In addition, Ecology staff posted rule documents on the Solid Waste and Financial Assistance Program (SWFAP) rule website and the biosolids program website to communicate messages to the media, tribes and other interested persons. Informational materials were developed and updated throughout the development of the rule amendments.

Articles in the Northwest Biosolids Management Association's (NBMA) newsletter, *Biosolids Bulletin*, were published in June 2006 and February 2007. In addition, articles in the Washington Organics Recycling Council newsletter were published in the May/June 2006 and January/February 2007 editions. Articles were also published in Ecology's *Closed Loop Scoop* newsletter in August 2007 and February 2007. These newsletters reach nearly all of the regulated community as well as members of the environmental community.

Throughout the rule development process SWFAP staff worked closely with the U.S. Environmental Protection Agency (EPA) on biosolids issues. There is a link between the federal Clean Water Act and the state's biosolids



program and a statutory requirement that the state rule be in compliance with the federal biosolids rule. In addition, EPA participated on the BRRAG.

At the local level, the SWFAP communicated with local governments, including county health and public works departments and other entities on a daily basis. Presentations were provided to the eastside state environmental health directors on July 13, 2006, and the westside directors on July 14, 2006, to inform them of the rule development process. In addition, the environmental health directors were represented by two members on the BRRAG; both members were chosen by the directors.

Ecology sought involvement from the Native American community. Ecology sent letters to the Natural Resource Directors of all federally-recognized tribes in the state on May 11, 2006. This letter informed the tribes of the rule revision process and requested that they become involved in the process by becoming members of the BRRAG, by joining the ListServ, or via government-to-government communications.

Ecology also communicated individually with stakeholders and provided presentations to stakeholder groups, including the Coalition for Clean Water (January 2006) and the NBMA Board of Directors (January 2006 and January 2007).

On January 19, 2007, Ecology filed with the Office of the Code Reviser proposed rule making amendments to Chapter 173-308 WAC, Biosolids Management (CR 102 Form). These proposed rule amendments were published on February 7, 2007, in the Washington State Register (WSR) Issue #07-03-099.

The proposed rule amendments and a Determination of Non-significance (DNS) issued in accordance with the State Environmental Policy Act (SEPA) were subject to a 47-day formal comment period, which ended on March 8, 2007.

Two public hearings were held on the proposal during the comment period, one in Lacey on February 27, 2007, and one in Moses Lake on March 1, 2007.

Legal notices of the hearings, the rule comment period, and the SEPA comment period were published on Ecology's Public Events Calendar, Ecology's webpage, the WSR (Issue #07-03-099), and in the following newspapers: Bellingham Herald, The Columbian, Seattle Times/Post Intelligencer, Spokesman-Review, Tri-City Herald, Wenatchee World, and Yakima Herald-Republic. Ecology also mailed a focus sheet containing public involvement information, including notice of the proposed rule, public hearings, and the SEPA comment period to 452 interested persons. This included affected WWTPs, SMFs, BUFs, tribes, counties, cities, the environmental health directors, EPA, and others interested in biosolids-related issues. Persons on the ListServ were also sent the notice.

Five members of the public attended the hearings. Two persons submitted oral comments, and sixteen persons submitted written comments on the proposed rule during the formal comment period. No comments were received on the DNS.

## **1.5 Changes to the Proposed Rule Amendments**

In response to comments on the proposed rule amendments to chapter 173-308 WAC, Biosolids Management, Ecology made several changes to the proposed rule, including the following:

- Clarifications of the requirements for the mixing of grease trap wastes and other commercial/industrial septage with domestic septage.
- Clarifications of the requirements for the removal of manufactured inerts and allowable concentrations of manufactured inerts in land applied biosolids
- Elimination of the requirement for a management plan for the storage of biosolids that does not meet a vector attraction reduction standard.

Please see Appendix B for more details. The difference between the proposed rule text and the text of the rule as adopted is contained in Appendix B. This appendix also contains a brief explanation of changes. For further information on the changes made in response to the comments, please see the various chapters of this document.

## 1.6 Organization and Format of the Document

The Concise Explanatory Statement (CES) is organized based on sections of the rule. For each section, the CES provides a brief overview of the changes in the adopted rule as compared to the original rule (last update February 18, 1998). Ecology then responds to any comments received on that section during the public comment period on the proposed rule (filed with the CR 102 January 19, 2007) while explaining any changes that were made in response to the comments. The following table provides clarification on the different versions of the rule discussed in this document.

Version of rule	Description
Original rule	Last rule update February 18, 1998 (previously existing rule)
Proposed rule	Filed with the CR 102 January 19, 2007
Adopted rule	Adopted in May 2007

Comments on the proposed rule were received in writing and orally at the public hearings. Eighteen commenters submitted comments on the proposal. Please see **Appendix A** for the full text of those comments. Ecology reviewed the comments received and has provided a response to the comments.

**Appendix A – Comments on the Proposed Rule Amendments** presents the list of persons who commented on the proposed rule amendments and the text of those comments.

**Appendix B – Changes to the Proposed Rule Amendments** presents the text of the proposed rule and all the changes that were made to the proposed rule that were adopted as part of the final rule. This Appendix contains comments in the far right margin that explains the reason for any changes other than editorial changes. Further explanations for any changes may also be found in the following chapters.

## CHAPTER 2 GENERAL COMMENTS ON RULE AND PROCESS

### 2.1 Response to Comments

Eight comments were received on the overall rule and the process used to revise the rule. All comments are listed below followed by Ecology's response.

**Comments 1-3 (the same or a similar comment was submitted by 3 commenters).** The Northwest Biosolids Management Association (NBMA) would like to make the following comments on the draft revisions to WAC 173-308. The NBMA appreciates the approach that Ecology has adopted for crafting revisions to the 308 rule. However, the implementation of this process has apparently suffered from schedule pressures. Bringing in a broad range of stakeholders early in the revision process had a positive impact on the creativity and quality of the proposed revisions. The diverse view points that were expressed in the BRRAG generated creative and elegant solutions to many of the issues presented in the rule revision process. These revisions, agreed to by Ecology representatives, were unilaterally changed by Ecology without any discussion or consultation with the BRRAG. We recognize that an additional meeting of the stakeholder group could have impacted the schedule however we are disappointed that Ecology made significant changes to the revisions without providing an opportunity for the stakeholders to discuss the rationale. We believe that crafting implementable science-based fiscally responsible revisions to the rule are more important than having the revisions completed by July 2007.

**Comment 4.** The TPCHD supports the modifications and revisions to the Biosolids Management Rule proposed. The proposed changes significantly improve the Rule and will allow Ecology to provide a consistent foundation for regulatory oversight to continue to protect public health and the environment while beneficially reusing a valuable resource.

**Comment 5.** The King County Wastewater Treatment Division would like to provide comments on the proposed revisions to WAC 173-308, Biosolids Management. We are pleased with Ecology's continued commitment to support the maximum beneficial use of biosolids while protecting human health and the environment. We appreciate the process Ecology used to gain broad stakeholder involvement through the biosolids rule revision advisory group. Ecology set an ambitious schedule for the process and most topics of concern were creatively resolved in collaboration with the advisory group. However, we are concerned that not all revisions in the final proposal were brought forward to the advisory group for discussion. King County encourages Ecology to continue to consult with stakeholders on unresolved topics, with the goal of implementing science-based, fiscally responsible revisions, rather than imposing unilateral changes through the rule itself. Once these issues are resolved, they could be implemented through the general permit or Biosolids Management Guidelines.

**Comment 6.** I got your letter concerning the rule amendments. I also had a look at some of the minutes and such from the meetings. Everything looks reasonable to me. I did think the annual permit fee of \$600 was a bit much for a smaller operation like mine, but then these are the type of operations that take the most time. I also see how it can get "other" operations up to snuff so to say. Everything looks OK to me.

**Comment 7.** We appreciate your efforts to resolve the septage management issues.

**Comment 8.** Dan, well done, I think the changes made to the rule, in particular regarding septage management are a great improvement. I do have additional comments/questions and have attached some portable toilet data, most of the samples measure BOD and COD but a couple of samples also include TKN and BOD. When you convert the TKN to dry weight the nitrogen levels are many times higher than EPA's domestic septage assumptions, the BOD data from the other samples are similar so I would presume the nitrogen levels are similar.

**ECOLOGY RESPONSE TO COMMENTS 1-8.** Ecology values the input provided by the BRRAG and other stakeholders during the development of the rule, and has stated in communication with the BRRAG that this input has significantly improved the rule. When the BRAGG was formed Ecology clarified that the BRAGG would not be used to reach consensus on the rule language but rather as a way to receive input from interested parties and discuss key issues with a group broader than just Ecology staff. Ecology's role was to then take that information, consider the varying suggestions and rationales provided, and then draft a rule proposal that would meet the intent of the statute being implemented taking into consideration the feedback we received. The comment period as part of this rule

making provided the opportunity for interested parties to yet again comment on draft language. The rule making process included adequate time to allow Ecology to consider all of the input received and to review and consider the best available scientific and other information. Ecology is the regulatory agency most responsible for biosolids management issues, and it is Ecology's obligation to make final decisions to ensure that the rule maximizes beneficial use of biosolids while still being protective of human health and the environment.

## CHAPTER 3 WAC 173-308-005 EXPLANATION FOR THE USE OF THE TERMS “SEWAGE SLUDGE”, “BIOSOLIDS”, AND “SEPTAGE”

### 3.1 Overview of Changes

This is a new section. The bulk of the language in this section was contained in WAC 173-308-070 in the original rule. The decision was made to move this section up front in the rule and to provide a more thorough explanation of the terms for clarification purposes. WAC 173-308-070 in the original rule is repealed.

### 3.2 Response to Comments

Seven comments were received regarding the amendments to WAC 173-308-005. Some revisions were made in response to the comments for clarification purposes.

**Comment 1.** The new section does not address or explain anything about “biosolids applied to a lawn or home garden.”

**ECOLOGY RESPONSE TO COMMENT 1.** The language referred to by the commenter was in the official Order Typing Service’s (OTS) version of the rule text, but it was not intended to be in there. The inclusion of this language in the OTS version was an error and has been corrected.

**Comment 2.** We note that the word municipal has been dropped generally so that references are no longer to municipal sewage sludge but just to sewage sludge. This is consistent with federal rules. 005(1) however talks about facilities that treat "domestic" waste and we believe this is an inappropriate characterization. Biosolids or sewage sludge is generated at facilities which treat domestic sewage or a combination of domestic sewage and industrial/commercial wastewater. We think clarification here is important so as not to create a stepping stone for future misunderstandings or arguments. We want to be clear: Our issue is only with a proper characterization. Given the success and continued implementation of pretreatment programs and alternative safer technologies we are not overly concerned with the non-domestic component of the influent stream. We also wonder about the use of the term "waste" as opposed to sewage or wastewater.

**Comments 3-5 (the same comment was submitted by 3 commenters).** Sewage sludge is the semi-solid material that has settled out of wastewater from a treatment works treating domestic sewage. This definition is more consistent with the federal rule and with Ecology’s WAC 173-308-080 definition.

**Comment 6.** WAC 173-308-005 (1) proposed wording: Sewage sludge is the semi-solid material that is generated during treatment of domestic sewage in a treatment works. We recommend that the first sentence be revised to be more consistent with definition in the federal rule and with Ecology’s WAC 173-308-080 definition.

**ECOLOGY RESPONSE TO COMMENTS 2-6.** The first sentence in WAC 173-308-005(1) was changed to read, “Sewage sludge is the solid, semisolid, or liquid residue that is generated during the treatment of domestic sewage in a treatment works.” This is the same definition of sewage sludge that is found in 40 CFR 503.9(w) and WAC 173-308-080. The inclusion of language regarding “commercial/industrial” wastewater was not included despite the correct statement in Comment 2 that sewage sludge can be derived in part from such materials. In accordance with both state and federal biosolids rules, sewage sludge must be at least partly derived from domestic wastes, but that does not preclude an industrial or commercial component.

**Comment 7.** (1)(c) and (2) use the term ‘managed’ but the term is not defined. Suggestion: Define the term "Management of Biosolids." See comment on Section WAC 173-308-080.

**ECOLOGY RESPONSE TO COMMENT 7.** A definition of “management of biosolids” was not included. This is addressed in more detail in Chapter 12 of this document. The use of the term “managed” in the context of WAC 173-308-005(1)(c) and (2) is for septage that is managed as if it were biosolids from a wastewater treatment facility. The term, “septage managed as biosolids originating from sewage sludge” is defined in WAC 173-308-080.

## **CHAPTER 4 WAC 173-308-010 AUTHORITY AND PURPOSE.**

### **4.1 Overview of Changes**

No significant changes were made to this section.

### **4.2 Response to Comments**

No comments were received on this section.

## CHAPTER 5 WAC 173-308-020 APPLICABILITY.

### 5.1 Overview of Changes

Ecology amended WAC 173-308-020(1)(i) through (l) for clarification purposes. In addition, in response to comments received, WAC 173-308-020(3)(g) was modified. Additional information on these modifications can be found in 5.2, below.

### 5.2 Response to Comments

Four comments were received on this section. The comments were primarily concerned with WAC 173-308-020(3)(g). Several additional and related comments were made regarding grease trap wastes (GTW) and the definition of septage in WAC 173-308-080. Please see Chapter 12 of this document to review Ecology's responses to those comments. Several changes were made to WAC 173-308-020(3)(g) in response to the comments on this section and WAC 173-308-080.

**Comment 1.** In the applicability section, 020 1l seems to conflict with 020 3g because 3g requires a case by case approval whereas 1l does not, is 3g suppose to apply only to SMFs because as I read the definition of "treatment works" or "treatment works treating domestic sewage", either can accept commercial or industrial wastewater or sludge?

**ECOLOGY RESPONSE TO COMMENT 1.** WAC 173-308-020(1)(l) was added to the proposed rule to clearly state that "products derived from biosolids" (e.g., composts or topsoils with a biosolids component) are also considered to be biosolids that are subject to the rule. Whereas, WAC 173-308-020(3)(g) was intended to refer strictly to septage managed as such (thus, to SMFs). A TWTDS handling commercial or industrial wastewaters that is producing and managing biosolids (not septage) does not need approval to accept the material. Several changes were made to WAC 173-308-080(3)(g); please see Ecology's response to comments below.

**Comment 2.** How will the nature of septage from a source that may have received other than "domestic sewage", and is thus subject to 3g, be verified? This question came up when the 308s were first developed without resolution to my knowledge,

**ECOLOGY RESPONSE TO COMMENT 2.** Ecology has not previously prepared an official policy for making determinations on whether a material is "domestic in quality." The reason for this is due to the extremely variable types of materials that may be proposed for management—that is why the language states, "on a case-by-case basis." In some cases testing is required, but in other cases it's sufficient to provide Ecology with information on the nature of the influent. As a general rule, when testing is required, Ecology compares the analytical data with data on septage from the 2001 *Washington State Septage Characterization Analysis* (ECY Publication # 01-07-007). Ecology uses this comparison to make the determination.

**Comment 3.** In the definition of "Treatment works treating domestic sewage" third line what is "reclamation of municipal", if it refers municipal sewage, it is an undefined term.

**ECOLOGY RESPONSE TO COMMENT 3.** The definition of "treatment works treating domestic sewage" was taken almost directly from 40 CFR Part 122.2, which also refers to the "reclamation of municipal or domestic sewage." Like Chapter 173-308 WAC, both 40 CFR Part 122 and 40 CFR Part 503 use the term "municipal sewage" but do not define it. Thus, the commenter is correct that this is an undefined term. However, a definition should not be needed for "municipal sewage" because it simply refers to sewage from a municipality, and "municipality" is defined. "Municipal sewage sludge" is defined as well.

**Comment 4.** This section does not indicate that the code applies to septage. This is important because the definition of sewage sludge does not include the term septage.

**ECOLOGY RESPONSE TO COMMENT 4.** The proposed language in WAC 173-308-020(3)(g) is meant to apply to SMFs. Furthermore, WAC 173-308-005(1) states that "septage is a class of biosolids," WAC 173-308-005(1)(b) states that the use of the term "biosolids" includes septage unless the context requires otherwise, and WAC 173-308-

005(4) states that unless the context requires otherwise, all sections of the rule other than those already listed in (2) and (3) apply to “all biosolids, including septage.”

WAC 173-308-020(3)(g) was revised for clarification purposes. The revised text now reads:

- (g) Commercial or industrial septage or a mixture of domestic septage and commercial or industrial septage except as allowed in accordance with this subsection.
  - (i) Grease trap wastes from restaurants and similar food service facilities may be mixed with domestic septage up to 25 percent by volume.
  - (ii) On a case-by-case basis, on request of a septage management facility or at the department's discretion, the department may designate other commercial or industrial septage as septage that is “domestic in quality” and require the septage to be managed in accordance with the provisions of this chapter.
  - (iii) At no time may the combined total of grease trap wastes and other commercial or industrial septage mixed with domestic septage exceed 25 percent by volume.



## **CHAPTER 6 WAC 173-308-030 RELATIONSHIP TO OTHER LAWS, REGULATIONS, AND ORDINANCES.**

### **6.1 Overview of Changes**

Only minor changes were made to this section. The laws and regulations referred to in this section were updated where necessary, and specific reference to the federal biosolids rule (40 CFR Part 503) was added.

### **6.2 Response to Comments**

No comments were received on this section.

## **CHAPTER 7    WAC 173-308-040** **DIRECT ENFORCEABILITY.**

### **7.1    Overview of Changes**

No changes were made to this section.

### **7.2    Response to Comments**

No comments were received on this section.

## **CHAPTER 8 WAC 173-308-041 ENFORCEMENT.**

### **8.1 Overview of Changes**

This is a new section. The language was taken from WAC 173-308-310(23) in the original rule and slightly revised. The decision was made to move this language into a stand-alone section and out of the permitting section (WAC 173-308-310) because the enforcement provisions apply to all applicable activities regulated by this rule regardless of whether or not a permit is required or issued.

### **8.2 Response to Comments**

No comments were received on this section.

## **CHAPTER 9 WAC 173-308-042 APPEALS.**

### **9.1 Overview of Changes**

This is a new section. The language was taken from WAC 173-308-310(24) in the original rule and slightly revised. The decision was made to move this language into a stand-alone section and out of the permitting section (WAC 173-308-310) because the option to appeal decisions apply to any decisions made by Ecology whether or not they are made as part of a permit.

### **9.2 Response to Comments**

No comments were received on this section.

## **CHAPTER 10 WAC 173-308-050 DELEGATION OF AUTHORITY.**

### **10.1 Overview of Changes**

New language was added to this section regarding a termination date for delegation agreements. WAC 173-308-050(2)(c) was amended to include a termination date of five years from the date the agreement was signed. Given that staff and priorities at local health jurisdictions and Ecology change over time, it seems reasonable to review, potentially revise, and renew delegation agreements on a regular schedule. This was added in order to guarantee a periodic review of delegation agreements by both Ecology and local health jurisdictions. Also, WAC 173-308-050(2)(c) in the original rule was deleted because it was deemed unnecessary.

### **10.2 Response to Comments**

No comments were received on this section.

## **CHAPTER 11 WAC 173-308-060 BIOSOLIDS NOT CLASSIFIED AS SOLID WASTE.**

### **11.1 Overview of Changes**

No changes were made to this section.

### **11.2 Response to Comments**

One comment was made on this section.

**Comment 1.** Tenelco recommends that the agency add a new subsection between (3) and (4). The effect of declaring that biosolids are a valuable commodity (per statute) is positive. The rule goes on to say however that biosolids or septage which do not meet standards is considered a solid waste and that sewage sludge disposed in a landfill is subject to solid waste regulations. They agency may wish to further clarify policy by stating that “Per statute the preference of the State of Washington is for beneficial use of biosolids. Sewage sludge or septage which does not meet standards for biosolids must be transported to a treatment facility unless the requirements for landfill disposal in Section 300 of this rule and conditions of any applicable permit are met.”

**ECOLOGY RESPONSE TO COMMENT 1.** WAC 173-308-010(2)(a) already encourages maximum beneficial use, and WAC 173-308-300 already requires approval for any disposal. Therefore, no changes were made in response to the comment.

## CHAPTER 12 WAC 173-308-080 DEFINITIONS.

### 12.1 Overview of Changes

Several definitions in this section were revised for clarification purposes. A few new definitions were added. Some definitions were deleted because changes in other sections made them unnecessary. In nearly all cases, these changes are described elsewhere in this document. However, below are seven definitions that were either revised or deleted or added but not described elsewhere.

“Annual pollutant loading rate” and “annual whole biosolids application rates” were deleted because they became unnecessary with the decision to require all biosolids sold or given away in a bag or other container to meet the exceptional quality standards (WAC 173-308-260 and Chapter 31).

“Biosolids sold or given away in a bag or other container” was added for clarification purposes.

The definition of “septage managed as biosolids originating from sewage sludge” was improved for clarification purposes.

Definitions of “surface impoundment”, “tank”, and “temporary, small-scale storage” were added to support changes in the storage section (WAC 173-308-280 and Chapter 33).

### 12.2 Response to Comments

Twenty-four comments were received on this section. Several changes were made based on the comments. In addition, comments were received on several related sections, and response to those comments also affected this section as explained below or in the appropriate chapter.

**Comment 1.** “Accumulation of Biosolids” means generation of biosolids during the sewage treatment process prior to removal.

**ECOLOGY RESPONSE TO COMMENT 1.** This term is not used in the rule, and Ecology decided not to use the term as suggested for a revised definition of “store or storage of biosolids or sewage sludge”, below; please see the response to the comment on that definition as well.

**Comment 2.** “Agronomic rate”: Tenelco recommends that the agency just refer to “targeted vegetation” instead of targeted vegetation type. “Type” is a potentially ambiguous term subject to interpretation and reinterpretation and could be very specific or refer to a broader class of plants.

**Comments 3-6 (the same or a similar comment was submitted by 4 commenters).** Agronomic Rate is the Biosolids application rate that provides the amount of nitrogen necessary for the optimum growth of targeted vegetation types: This small change is suggested to clarify that the agronomic rate is calculated based on nitrogen uptake rate of the targeted crop but also includes the nitrogen uptake of associated species. This is a particularly important component of the agronomic rate calculation in forest ecosystems.

**ECOLOGY RESPONSE TO COMMENTS 2-6.** In response to Comments 2-6, “a” and “type” were deleted from the definition. The revised definition reads:

“**Agronomic rate**” is the biosolids application rate that provides the amount of nitrogen necessary for the optimum growth of targeted vegetation, and that will not result in the violation of applicable standards or requirements for the protection of ground or surface water as established under chapter 90.48 RCW and related rules including chapters 173-200 and 173-201A WAC.

**Comment 7.** “Beneficial use facility”: Tenelco recommends that the agency specifically clarify that a septage management facility (and land application sites in general) is not a BUF unless it is permitted as such.

**ECOLOGY RESPONSE TO COMMENT 7.** No changes were made in response to the comment. Ecology believes that the definition as written adequately conveys what a BUF is and is not.

**Comment 8.** “Beneficial use of biosolids”: This definition of beneficial use appears to be exceptionally narrow and ignores many studies where biosolids can be beneficially used in other ways such as immobilization of heavy metals land stabilization to reduce wind blown and water carried erosion use as a fuel for energy production etc. Which beneficial use is chosen by an entity should not be dictated by the regulatory authority. This regulation should be flexible enough to recognize and allow any proposed beneficial use so long as it does not harm human health and the environment.

**ECOLOGY RESPONSE TO COMMENT 8.** No changes were made in response to the comment. The commenter accurately describes some of the beneficial uses of biosolids. However, in order to protect waters of the state in accordance with the requirements in WAC 173-308-190, it is also necessary to grow vegetation even where biosolids are used for other purposes. For example, in the case of the use of biosolids for the immobilization of metals, mineral nitrogen will be released from the biosolids applied to a site, and vegetation will be necessary in order to take up most of the nitrogen in order to protect ground waters. The same is true when biosolids are used to help reduce wind and water erosion. Furthermore, using these same examples, wouldn't the existence of vegetation atop the biosolids/soil mixture further help to immobilize metals or reduce erosion? Ecology agrees that the use of biosolids for energy production can be beneficial. However, even in that example, there will remain a residual product after all of the energy production capability has been tapped, and that residual will be considered to be biosolids which ultimately will need to be used in some fashion—presumably for land application.

**Comment 9.** “Domestic sewage”: It appears that the definition is being changed to "waste from humans or household operations". This is a wide spectrum interpretation that could be considered from any facility based on waste stream originating from humans. As a company that tests for BOD TSS FOG or HEM CBOD pH DO Temperature. Many Restaurants Apartments Shopping Centers school and others can be tested and proven to have similar or lower "test results" than that of a home. I would be happy if this is the interpretation but for those of us that are testing this is very confusing with out the break down definitions. Waste contents based on sampling or known use is better than general words with out interpretations. The state Health department and most counties in the Puget Sound can not agree on what residential strength waste is be use or waste strength. The only definitions is by Volume per day. Please reconsider this definition. " Septage" or "Domestic Septage" has some break down definitions but are inconsistent with waste stream. As I will show in the next section most of this does not meet the 2 year or longer for septage.

**ECOLOGY RESPONSE TO COMMENT 9.** This definition was not changed from the original rule. The definition for “domestic waste” is the same as that found in 40 CFR Part 503. Ecology recognizes that wastes from non-households can be similar to or even “cleaner” than that from households. That is why the rule allows it to be classified as “domestic in quality” in accordance with the revised WAC 173-308-020(3)(g). Please see the response to comments on that subsection in Chapter 5, above.

**Comment 10.** “Individual permit” The definition of an individual permit does not capture the possibility of a treatment works that prepares material but does not directly land apply such as a compost facility.

**ECOLOGY RESPONSE TO COMMENT 10.** This definition in the proposed rule was not changed from the original rule. However, the comment accurately describes a shortcoming of the original definition. Thus, Ecology modified the definition; it and now reads:

“**Individual permit**” means a permit issued by the department to a single treatment works treating domestic sewage in accordance with WAC 173-308-310, which authorizes the management of biosolids or sewage sludge.

**Comment 11.** “Management of Biosolids” means storage of biosolids (as defined in this section) or transportation or land application of biosolids or any other process approved by the Department.

**ECOLOGY RESPONSE TO COMMENT 11.** The suggested definition was not included in the final rule. The rule is entitled, “Biosolids Management”, and management of biosolids includes, but is not limited to, any of the activities listed in WAC 173-308-020. The rule already uses terms such as “storage”, “transportation”, “land application”, etc. to distinguish various management options when appropriate.



**Comment 12.** “Nonexceptional quality biosolids”: WAC 173-308-080 contains a new definition that of “Nonexceptional quality biosolids”. It seems odd that in 1998 Ecology went to the trouble of writing a new biosolids rule that specifically changed the name (and public perception) of sewage sludge to biosolids only to label the majority of biosolids that are now handled in Washington State as “Nonexceptional”. To the layperson this term has a negative connotation. A more benign label would better serve the industry and the image of a valuable recyclable material.

**ECOLOGY RESPONSE TO COMMENT 12.** No changes were made in response to this comment. The use of the term “exceptional quality” (EQ) was in the original rule and was retained in the revised rule. It is necessary to distinguish the highest quality material from material that does not meet that standard because EQ biosolids are exempt from several of the regulatory requirements (see WAC 173-308-200). A new term, “nonexceptional quality biosolids”, was chosen for simplicity purposes rather than to continue to use the phrase used in the original rule, which described such material as, “*biosolids not meeting the criteria to be classified as exceptional quality*”.

**Comment 13.** “Septage” or “domestic septage”: Tenelco is concerned that revisions to the definition of septage in 080 of the rule and provisions in 020 regarding restrictions on mixtures of domestic septage and commercial septage could have the unintended consequence of adversely affecting or even eliminating grease trap service by pumper companies and could also eliminate Tenelco’s ability to accept these loads for treatment. Tenelco’s track record demonstrates our ability to accept grease trap waste and properly manage it and this business element is critically important to us and we believe other companies. The agency will need to clarify that it does not intend to curtail established business (and would thereby eliminate worries about revenue impacts). Also the agency will need to look at a broad scale determination of “domestic in quality” for grease trap waste as a literal case-by-case determination approach would simply be unworkable for the agency and the industry.

**Comment 14.** “Septage” or “domestic septage”: Evergreen Sanitation Inc. offers the following comments on the 173-308 biosolids rule proposed changes. Some of the proposed changes regarding the definition of septage were not discussed with the advisory group contrary to the Small Business Economic Impact Statement which reads in part "It should be noted that none of the proposed changes were strongly objected to by any of the small business representatives on the advisory group." Evergreen Sanitation Inc. and its solely owned subsidiaries has provided reliable service to facilities with grease traps for years without environmental incident or complaint. If proposed changes in the definition of septage which may eliminate an allowance for grease trap waste are adopted and Ecology does not allow grease trap waste to be included with septage based on some broad policy determination that grease trap waste can be managed as a material which is domestic in quality the economic impact to Evergreen Sanitation Inc a small business will be extreme. Therefore Evergreen seeks assurance from the agency that it will enact policies that will allow us to continue in business as our company has for fifty years now.

**Comment 15.** "Septage" or "domestic septage" - the proposed definition now excludes restaurant grease trap waste. Does this mean that grease trap waste can no longer be commingled with septage and managed (i.e., land applied) per Chapter 173-308 WAC? Is restaurant grease trap waste now to be regulated as a solid waste per Chapter 173-350 WAC? If this is so, the septage pumpers will now need to segregate grease trap waste and dispose of the material in an alternative manner. Are there alternative methods to dispose of grease trap waste other than disposing at a rendering facility or dewatering prior to landfilling?

**ECOLOGY RESPONSE TO COMMENTS 13-15.** In response to Comments 13-15 and comments made on WAC 173-308-020(3)(g), WAC 173-308-020(3)(g) was revised in order to clarify Ecology’s policy on GTW and other commercial/industrial septage (please see Chapter 5). The definition of “septage” or “domestic septage” was also revised to read:

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

In addition, a definition of “industrial septage” or “commercial septage” was added to the rule because the terms are used, but undefined. The definition reads:

“**Industrial septage**” or “**commercial septage**” is the contents from septic tanks or similar systems that receive wastewater generated in a commercial or industrial process. This definition includes, but is not limited to, grease trap wastes generated at restaurants and similar food service facilities.

It was never Ecology’s intention to eliminate the option for a SMF to handle some GTW. However, that was not clear in the proposed rule or in communications made by Ecology regarding this to commenters on the November 2006 rough draft. The intention was simply to combine the definitions of septage for simplification purposes and so that the new definition was more similar to the 40 CFR Part 503 definition, then to move GTW to the subsection where industrial and commercial septage is discussed (i.e., WAC 173-308-020(3)(g). Ecology believes the revisions made in response to comments received have clarified this issue.

**Comment 16.** WAC 173-308-080 eliminates the current designations of Class I II and III septage. The new definition of domestic septage includes “other” sources such as portable toilet waste RV holding tanks etc. with material from domestic septage tanks. The character of these other sources is often significantly different than domestic septage. Handling and treatment of these sources should be different from that of domestic sources due to their composition. One suggestion might be to create a multi-tiered level of treatment depending upon the character and/or source of the material. This new rule could allow undesirable material to be land applied. In this case the old rule is more efficient in controlling septage quality.

**ECOLOGYS RESPONSE TO COMMENT 16.** Portable toilet waste and other less treated septage types were included in the original rule, and are retained in the revised rule. There are, in fact, distinctions made on the treatment requirements for lesser stabilized septage (e.g., that from portable toilets) vs. more stabilized septage (e.g., that from households). The difference in treatment requirements are the same as was found in the original rule except that Ecology has effectively replaced the language in the original rule which referred to septage “*that has had a sufficiently long residency time to be considered largely stabilized*” (this was in the definition for “Domestic septage—Class I”) with the phrase “*from households.*” Also, Ecology has added language that imposes more stringent application rates for mixtures of septage that include lesser stabilized materials. Please see the septage section of the rule (WAC 173-308-270) for further details. Also, please see Chapter 32 to see Ecology’s responses to comments on the septage section.

**Comment 17.** Section 080 includes two definitions for septage, but no stated option exists in the code revision for management of septage that is not managed as biosolids originating from sewage sludge.

**ECOLOGYS RESPONSE TO COMMENT 17.** The requirements for the management of septage that is not managed as biosolids originating from sewage sludge are contained in WAC 173-308-270. This is stated at the beginning of the section. It is also stated in WAC 173-308-005(3).

**Comment 18.** “Significantly remove manufactured inerts”: This revised definition says it means to significantly remove manufactured inerts from biosolids or sewage sludge by means such as physical screening or another method to a level that in the opinion of the department will not result in an aesthetic nuisance or physical hazard. Although an apparent step in the right direction Tenelco is disappointed (we think) with the revision to this definition. The language is vague and on examination leaves us wondering. The definition refers to the use of means “such as physical screening” to significantly remove manufactured inerts but allows for “another” method to accomplish that end. We do wonder then what other method the agency has in mind since it has removed the option of grinding (a decision we fully support). And we point out that grinding does not remove anything—it simply makes larger pieces of nasty ugly disgusting trash into littler pieces of nasty ugly disgusting trash. The program has had many years to mature—was put in place nationally long before adoption of current state program rules—and there is simply no further rationale which can justify not screening (to some extent) trash out of biosolids before they are put to beneficial use.

**Comments 19-21 (same comment submitted by 3 commenters).** “Significantly remove manufactured inerts”: The NBMA is fully committed to creating quality Biosolids products and protecting the environment. However we believe a manufactured inerts reduction standard does not directly address the problem of inordinate amounts of trash in Biosolids. We suggest a direct standard to be established in the general permit of X% manufactured inerts per unit of application area. Since there is currently no consensus on what an acceptable level of manufactured inerts would

be we strongly suggest that the standard be addressed in the permit where it can more easily be amended in the future as we gain more experience and monitoring data.

**Comment 22.** We suggest a measurable standard be established rather leaving it to subjective opinion. “Significant removal” implies that we would need to measure amount of trash that enters the treatment plant and how much is removed. Because there is currently no consensus on what an acceptable level of manufactured inerts would be, or measurement method, we strongly suggest that Ecology continue to work with stakeholders. Such criteria could be addressed in the general permit where it can more easily be amended in the future as we gain more experience and monitoring data.

**ECOLOGY RESPONSE TO COMMENTS 18-22.** In response to Comments 18-22 as well as comments received on WAC 173-308-205 (the “significant reduction in manufactured inerts” section), Ecology revised WAC 173-308-205 to provide for a more objective approach to the issue of manufactured inerts in biosolids. In addition, the revisions to WAC 173-308-205 rendered the definition of “significantly remove manufactured inerts” in this section unnecessary, thus it was deleted from the final rule. Please see Chapter 28 to see Ecology’s response to comments on WAC 173-308-205 and the final language for that section.

**Comment 23.** Add to the definition of Store or Storage of biosolids or sewage sludge: This definition does not include accumulation of biosolids or sewage sludge generated during the treatment process.

**ECOLOGY RESPONSE TO COMMENT 23.** In response to the comment, Ecology slightly revised the definition of “store or storage of biosolids or sewage sludge” for clarification purposes. Please note that the accumulation of sewage sludge in a treatment lagoon cell is not storage, but the accumulation of treated sludge or biosolids removed from the wastewater treatment process and placed in a lagoon cell is storage. Once the solids are removed from the wastewater treatment process, they become subject to the storage standards. This has been long-standing Ecology and EPA interpretation of storage. The revisions to this definition in the proposed rule tried to make this interpretation more clear. The additional language added in the final rule attempts to make this interpretation even more clear. The definition now reads:

“**Store or storage of biosolids or sewage sludge**” is the placing of biosolids or sewage sludge on land or in surface impoundments or other containment devices in which the biosolids or sewage sludge remain for two years or less, except where a greater time period has been approved by the department. This does not include the placing of biosolids or sewage sludge on land or in surface impoundments or other containment devices for treatment or disposal.

**Comment 24.** “Treatment works treating domestic sewage”: Tenelco is not certain but believes the agency should not eliminate the authority to designate vehicles that service septic systems as TWTDS or at least we do not understand the rationale for doing so. This stated authority would allow the agency for example to designate a pumper used for illegal disposal activity and then require permitting under state rules. This authority may be captured elsewhere or the agency may have alternative remedies available.

**ECOLOGY RESPONSE TO COMMENT 24.** No changes were made in response to this comment. Ecology maintains the authority to declare such operations as a TWTDS. This authority is stated in WAC 173-308-310(1)(b). In the example provided by the commenter, Ecology would be able to declare the operation a TWTDS and require a permit under either WAC 173-308-310(1)(b)(ii) or (iii).

**CHAPTER 13 WAC 173-308-090**  
**REQUIREMENT FOR A PERSON WHO PREPARES**  
**BIOSOLIDS OR SEWAGE SLUDGE.**

**13.1 Overview of Changes**

No changes were made to this section.

**13.2 Response to Comments**

No comments were received on this section.

## **CHAPTER 14 WAC 173-308-100 REQUIREMENT FOR A PERSON WHO TRANSPORTS BIOSOLIDS OR SEWAGE SLUDGE.**

### **14.1 Overview of Changes**

This section was amended from the original rule primarily by adding a new requirement for permittees who transport or contract for the transportation of their biosolids or sewage sludge to submit a spill prevention and response plan. This is already a requirement in the *General Permit for Biosolids Management*. The reasons for including such a plan as a requirement is to minimize the risk of spillage of biosolids or sewage sludge during transportation, to reduce the risk of impacts to human health and the environment from pollutants and/or pathogens if a spill does occur, and to provide consistency between the rule and the *General Permit for Biosolids Management*.

### **14.2 Response to Comments**

One comment was received on this section.

**Comment 1.** We note that (2) is written in a different voice than (1) and (3). It is also not clear whether this requirement extends to all persons who transport biosolids or only to those who hold a permit. If the requirement extends to all—say contractors who provide only a transportation service—how will the agency enforce this requirement where the transporter is not otherwise covered under a permit?

**ECOLOGY RESPONSE TO COMMENT 1.** Several changes were made to the section to provide clarifications and to correct the inconsistent grammar. The revised language clarifies that it applies only to facilities who must obtain a permit and who transport their biosolids or sewage sludge or contract for such transportation. When a permittee contracts for transportation, they will either need to submit their own plan or their contractor's plan or ensure that their contractor has an approved plan that has already been submitted to Ecology.

**CHAPTER 15 WAC 173-308-110**  
**REQUIREMENT FOR A PERSON WHO APPLIES**  
**BIOSOLIDS.**

**15.1 Overview of Changes**

This section was not changed from the original.

**15.2 Response to Comments**

No comments were received on this section.

**CHAPTER 16 WAC 173-308-120  
REQUIREMENT TO OBTAIN AND PROVIDE  
INFORMATION.**

**16.1 Overview of Changes**

No changes were made to this section.

**16.2 Response to Comments**

No comments were received on this section.

## CHAPTER 17 WAC 173-308-130 REQUIREMENTS FOR TREATMENT WORKS LOCATED OUTSIDE OF THE JURISDICTION OF THE DEPARTMENT.

### 17.1 Overview of Changes

This is essentially a new section which replaces WAC 173-308-130 in the original rule. The language in the original rule was for “additional or more stringent requirements.” This language was moved to the permitting section (WAC 173-308-310(19)) because any such requirements would be issued as part of a permit. In retrospect, Ecology should have simply repealed this section and created a new section containing the new language regarding out-of-jurisdiction facilities. The rationale for adding this section was to correct the inconsistent approach being taken on solids from tribal lands and those from other states or nations, to simplify the requirements for those who send material to Ecology-permitted facilities, and to collect a fair fee from out-of-jurisdiction facilities.

### 17.2 Response to Comments

Ten comments were received on this section. Ecology made some minor revisions to the section for clarification purposes in response to the comments.

**Comment 1.** When titled *Additional or more stringent standards*, the section provided the permit authority to apply new facility permit conditions based on newly acquired site specific and/or regional information. This is an important authority that should be preserved. The following statement has been incorporated into the permit conditions for biosolids beneficial use facilities and septage management facilities in Whatcom County, and the intent should be preserved: *Ecology will require additional groundwater, drinking water, surface water, biosolids, or soil sampling at any time if Ecology believes that the additional sampling are necessary to protect public health and the environment from any adverse effect of a pollutant in the biosolids.*

**ECOLOGY RESPONSE TO COMMENT 1.** The authority to issue “additional or more stringent requirements” still resides with the permitting authority. However, this authority is now found in WAC 173-308-310(19) rather than in a separate section. The reason that this section was eliminated as a separate section is because this really is a permitting issue, thus it belongs in the permitting section (WAC 173-308-310).

**Comment 2.** The newly drafted section titled *Requirements for treatment works located outside of the jurisdiction of the department*, should include the term septage, since septage does not appear in the definition of sewage sludge, and should be entitled *Requirements for sewage sludge or septage generators located outside of the jurisdiction of the department importing sewage sludge or septage into the jurisdiction of the department.*

**ECOLOGY RESPONSE TO COMMENT 2.** No changes were made in response to the comment. EPA Region 10 has previously determined that domestic septage from other states or nations does not necessarily need approval prior to being transported into the state because septic tanks are not considered to be TWTDS. Therefore, until the material is treated and/or applied to the land, it is not necessarily subject to the rule. More importantly, septage, if being handled by a TWTDS, is captured in this section because the language refers to “biosolids.” And, in accordance with WAC 173-308-005(1)(b), unless the context requires otherwise the definition of biosolids includes septage and sewage sludge that has been or is being treated to meet the standards so that it can be applied to the land.

**Comment 3.** A section similar to the new –130 should be included and entitled *Requirements for sewage sludge or septage generators located inside of the jurisdiction of the department exporting sewage sludge or septage into the jurisdiction of the department.* This section should be worded to require that sewage sludge or septage generated in the jurisdiction of the department must be managed to at least the standards of Chapter 173-308 WAC Biosolids Management.

**ECOLOGY RESPONSE TO COMMENT 3.** No changes were made in response to the comment. With the exception of WAC 173-308-130, the remainder of the rule is written to address the requirements for producers and managers of biosolids, sewage sludge, and septage generated within the jurisdiction of the department.



**Comment 4.** (1)(a) requires an out of jurisdiction exporting facility to apply for a permit prior to exporting biosolids into the state if it wishes to establish its own management program within the state. Tenelco believes in this circumstance that an exporting jurisdiction should be obligated to do more than simply apply for a permit. There is no qualification here as to the quality of the application regarding completeness or accuracy; in fact an applicant whose submittal was deemed entirely lacking would still meet this test.

**Comments 5-7 (same comment submitted by 3 commenters).** The exporting facility must obtain coverage under a permit in accordance with WAC 173-308-310 prior to exporting Biosolids or sewage sludge into the state. The NBMA believes explicit language regulating the importation of Biosolids from external (out of jurisdiction) sources is a significant improvement to the rule. This addition to the rule allows users of biosolids (farmers ranchers) access to additional sources of this valuable material and still provides adequate assurance that out of jurisdiction material is of high quality and that fees are collected from producers to pay for the additional cost of regulating this material. We believe that out of jurisdiction generators should be required to obtain coverage under the permit prior to exporting material rather than just apply for the permit. Requiring only an application leaves open the possibility that a generator could submit an inadequate application and still export material to the state without ever actually gaining coverage under and complying with a permit.

**ECOLOGY RESPONSE TO COMMENTS 4-7.** Ecology agrees with comments 4-7, and has revised WAC 173-308-130(1)(a) of this section to read, “The exporting facility must apply for a permit in accordance with the requirements in WAC 173-308-310 and receive final coverage under a general permit or receive an individual permit prior to exporting biosolids or sewage sludge into the state.” Thus, a permit is required under WAC 173-308-130(1)(a) rather than simply applying for a permit.

**Comment 8.** WAC 173-308-130(1)(a) we support Ecology’s revision to allow biosolids to be exported into Washington under the provisions outlined in this section and the fees as required in WAC 173-308-320.

**Comment 9.** Tenelco supports (2) which makes it possible for an exporting jurisdiction to partner with a properly permitted facility in the state. In this case a permit is in place to provide accountability as opposed to (1)(a).

**ECOLOGY RESPONSE TO COMMENTS 8-9.** Please see the previous Ecology response regarding changes to the language in subsection WAC 173-308-130(1)(a).

**Comment 10.** Tenelco recommends the labeling requirements for bagged products also be referenced in 130(3).

**ECOLOGY RESPONSE TO COMMENT 10.** The language in WAC 173-308-130(3)(b) was changed to state that the biosolids must meet the requirements in WAC 173-308-260 (the bagged biosolids section). WAC 173-308-260 contains the labeling requirements recommended by the commenter.

## CHAPTER 18 WAC 173-308-140 BIOSOLIDS SAMPLING AND ANALYTICAL METHODS.

### 18.1 Overview of Changes

This section was changed substantially from the original. The changes do not eliminate any analytical methods. Rather, the changes were made to allow the use of approved methods and manuals that were not included in the original rule. The changes also seek to allow the use of the most up-to-date version of methods manuals and other publications. The changes were also needed to create more consistency with Ecology's Lab Accreditation Program, which certifies labs based on the latest edition of methods manuals.

The original rule included the methods and manuals listed in 40 CFR Part 503. The problem was that there are new and sometimes better methods available for some analyses, and the editions of the various manuals may have changed. For example, the original rule required the 18<sup>th</sup> edition of *Standard Methods for the Examination of Water and Wastewater* for fecal coliform, salmonella, specific oxygen uptake rate, and total, fixed and volatile solids. But Ecology's Lab Accreditation Program requires certification in the latest edition (currently the 21<sup>st</sup> edition). Since Ecology requires facilities to use accredited labs in accordance with the *General Permit for Biosolids Management*, a compliance issue occurs when this happens because the labs use the 21<sup>st</sup> edition based on the requirements of the Lab Accreditation Program.

The revised language requires the use of the most up-to-date version of the various publications cited (note: the edition and/or publication date in the citations was purposely deleted). The revised language also includes several new analytical methods, including some listed in the *National Pollutant Discharge Elimination System Compliance Inspection Manual* (EPA 305-X-04-001, July 2004), 40 CFR Part 503, 40 CFR Part 136, and *Managing Nitrogen from Biosolids* (Ecology Publication #99-508, April 1999).

### 18.2 Response to Comments

One comment was received on this section.

**Comment 1.** Add following as a lead-in sentence: The following requirements are applicable only when you manage biosolids.

**ECOLOGY RESPONSE TO COMMENT 1.** No changes were made in response to the comment. This section only applies when biosolids or sewage sludge are being analyzed. Facilities that are not required to test their biosolids or sewage sludge are already not subject to this section. WAC 173-308-150 was revised in response to another comment made by the commenter, and this revision should make this issue more clear. Please see the response to comments received on WAC 173-308-150 in Chapter 19.

## CHAPTER 19 WAC 173-308-150 FREQUENCY OF BIOSOLIDS MONITORING.

### 19.1 Overview of Changes

The section was revised from the original rule in two ways. The first change was to delete the language allowing a reduction in the monitoring requirements for enteric viruses and viable helminth ova required to be sampled for under what was WAC 173-308-170(2)(c)(ii) and (iii). This change was necessary because what was WAC 173-308-170(2)(c) (otherwise known as “Class A – Alternative 3”) was deleted from the rule (please see Chapter 21 for an explanation of why this alternative was deleted). Thus, the language became obsolete. The second change was to add clarification language stating that TWTDS that merely transfer their solids for further treatment are not required by the rule to monitor for pollutants, pathogen reduction, or vector attraction reduction (the monitoring requirements are incumbent upon the TWTDS receiving the material). The new subsection containing this new language is WAC 173-308-150(4). This latter change was not a change in policy, as this has always been the case, but the text was added for clarification purposes.

### 19.2 Response to Comments

Eight comments were received on this section.

**Comment 1.** Add following as a lead-in sentence: The following requirements are applicable only when you manage biosolids.

**ECOLOGY RESPONSE TO COMMENT 1.** WAC 173-308-150(3) was moved to become the new subsection WAC 173-308-150(1). This was done to clarify that this section only applies when biosolids are land applied or prepared for sale or give-away for application to the land.

**Comment 2.** 150(4). We support this revision; it simplifies requirements and reduces cost of monitoring for small plants, such as the Vashon treatment plant, that transfer all solids to another facility for further treatment.

**ECOLOGY RESPONSE TO COMMENT 2.** Thank you for the comment.

**Comment 3.** (4) relinquishes biosolids generator responsibility and transfers it to the land applier. Under normal circumstances biosolids generators transfer relatively small loads of material (limited to WDOT restrictions associated with truck travel weights) to land application sites where it is then often mixed with material from other sources. Without initial testing at the point of origin all the responsibility will be that of the land applier. It will be extremely difficult to establish responsibility if generators do not have to characterize the material that they produce. Some biosolids generators transfer biosolids to other facilities solely for pathogen and vector attraction reduction. Under this circumstance the land applier would have to segregate each generators material until sampled and analyzed for metals as well to comply with restrictions in WAC 173-308. This may mean new storage facilities for some generators to segregate material as well as more management for record keeping and possibly more frequent testing of material for quality control. This new rule will impose a significant economic impact to small land appliers that was not initially analyzed in the Small Business Economic Impact Statement for proposed amendments to Chapter 173-308 Biosolids Management. Generators should have to test for heavy metals at a minimum to establish if their material is acceptable for land application.

**ECOLOGY RESPONSE TO COMMENT 3.** Ecology did not intend this new language as a change in policy. It has always been the case that the rule does not require those who merely transfer their solids for further treatment to monitor those solids. This is the same policy that EPA and other states have. Ecology added this language for clarification purposes. This new language does not in any way limit any requirements that the receiver of biosolids or sewage sludge may impose on the initial generator. Any receiver of biosolids or sewage sludge who further treats the material can require sampling before accepting the material. It is Ecology’s understanding that most receivers do require such testing.

It’s important to understand that when biosolids are mixed by a receiver (including a land applier) such as in the example provided by the commenter, the mixture becomes a new product that is subject to the monitoring

requirements. Land applicators who accept biosolids from various sources should not mix the various biosolids if they do not wish to be subject to these requirements. Land applicators who do mix various nonexceptional quality biosolids products are out-of-compliance with the rule if they are not conducting monitoring in accordance with this section, and they are, therefore, subject to enforcement.

**Comment 4.** In 150(5) the Department has removed the option of reducing the frequency of monitoring for pathogens. Tenelco encourages the agency not to eliminate flexibility which remains a matter for the discretion of the agency. There is no benefit to this revision; only the loss of an option. The agency should consider that the regulation is addressing only monitoring frequency here not the number of samples the quality or the suitability of the outcome for any particular purpose; all monitoring programs should be evaluated in context. For example a facility with drying beds might be obligated to monitor more than once per year but a single monitoring event prior to removal would likely make more sense. Further the agency should consider that new pathogens or indicator organisms may be identified at some time and that a reduction in frequency of monitoring may be appropriate for some organisms and not for others. Cost impacts in this kind of scenario could be significant. We also note that Vector Attraction Reduction is identified in (1) but is not referenced in (5).

**Comments 5-7 (the same comment was submitted by 3 commenters).** After the Biosolids have been monitored for 2 years at the frequency in this section the person who prepares the Biosolids may request the department to reduce the frequency of monitoring for pollutant concentrations pathogen reduction or vector attraction reduction. There is no reason to eliminate the flexibility to request sampling frequency reductions for pathogens and vector attraction reduction. There are conceivable circumstances such as lagoons and drying beds where intense infrequent sampling makes more sense than sampling more frequently. This does not preclude Ecology from denying a request to reduce monitoring frequency.

**Comment 8.** Proposed wording: After the biosolids have been monitored for two years at the frequency in this section, the person who prepares the biosolids may request the department to reduce the frequency of monitoring for pollutant concentrations, *pathogen reduction and vector attraction reduction*. While Ecology's proposal does not affect facilities that rely on process control standards, we believe there is no reason to eliminate the flexibility to request sampling frequency reductions for pathogens and vector attraction reduction as well as pollutants. There are conceivable circumstances such as lagoons and drying beds where intense infrequent sampling makes more sense than sampling more frequently. This does not preclude Ecology from denying a request to reduce monitoring frequency.

**ECOLOGY RESPONSE TO COMMENTS 4-8.** No changes were made in response to Comments 4-8. The option for intense, infrequent sampling suggested by the commenters is already allowed for lagoons and drying beds and other situations where biosolids are not regularly managed. In such circumstances, Ecology's policy has always been to allow the sampling prior to application or release. In fact, in most cases this type of monitoring is required for pathogen reduction, and is commonly needed for vector attraction reduction monitoring as well. It should be noted that this policy was also at least alluded to by EPA in *A Plain English Guide to the EPA Part 503 Biosolids Rule* (EPA/832/R-93/003), which states, "...the Part 503 rule does not require analysis until the biosolids are used or disposed."

With respect to pathogen and vector attraction reduction monitoring, the language in the original rule allowed a reduction in the monitoring requirements for enteric viruses and viable helminth ova under what was Class A – Alternative 3. Since that alternative has been deleted from the rule (see Chapter 21), the option is no longer applicable. Thus, the language was deleted. Also, 40 CFR Part 503 only allows a reduction in the monitoring requirements for pollutants and for the two organisms under Class A – Alternative 3; it does not allow a reduction in the monitoring requirements for vector attraction reduction or for organisms under any of the other pathogen reduction alternatives. Since Ecology's rule must not be less stringent than the federal rule, this rule could not authorize such reductions even if Ecology wanted to do so.

## **CHAPTER 20 WAC 173-308-160 BIOSOLIDS POLLUTANT LIMITS.**

### **20.1 Overview of Changes**

The only substantial amendment made to this section was to remove Table 4. The reason that Table 4 was removed was because it applied only to biosolids sold or given away in a bag or other container that exceeded the Table 3 pollutant limits. Given the decision to require biosolids sold or given away in a bag or other container to meet the exceptional quality biosolids standards (see Chapter 31 for further discussion of this change), Table 4 became obsolete.

### **20.2 Response to Comments**

One comment was received on this section.

**Comment 1.** Add following as a lead-in sentence: The following requirements are applicable only when you manage biosolids.

**ECOLOGY RESPONSE TO COMMENT 1.** No changes were made in response to the comment because it is believed that the language in the first sentence of this section effectively states what the commenter is proposing. The first sentence states, "This section sets pollutants concentration limits, and annual and cumulative pollutant loading rate limits for biosolids that are applied to the land."

## CHAPTER 21 WAC 173-308-170 PATHOGEN REDUCTION.

### 21.1 Overview of Changes

Two changes were made to this section. The changes were to delete Class A – Alternative 3 and Class A – Alternative 4 from the rule. The primary reason for removing these alternatives was for the protection of public health from the potential for contact with pathogenic organisms. Class A biosolids are considered to be effectively pathogen-free (that is, tests would indicate exceptionally low or non-detect levels for pathogens or pathogen indicator species). When other quality standards are met, Class A biosolids can be distributed directly to the public for virtually unregulated uses (e.g., in potting soils, for garden applications, for lawn applications). Class A – Alternatives 3 and 4 allow facilities to show Class A through testing rather than imposing a process requirement as required under all other Class A alternatives. Ecology has concerns about allowing biosolids to be distributed to the public that do not meet a specific process requirement. Furthermore, depending on the type of treatment process used, the organisms required to be analyzed in these alternatives (namely enteric viruses and viable helminth ova) may not be the best organisms for evaluating the quality of the biosolids, as evidence suggests that neither organism is as “hardy” as previously believed under certain conditions. Showing Class A under either of the deleted alternatives does not provide a sufficient guarantee of the quality of the material due to the lack of a clear treatment process. After reviewing comments, reviewing numerous technical documents, and discussing the issue with a senior microbiologist from the U.S. EPA’s Pathogen Equivalency Committee, Ecology decided to eliminate the two alternatives entirely from the rule. The primary argument against the alternatives is that the absence of an organism does not mean that the process is effective in destroying the organism or similar-type organisms.

### 21.2 Response to Comments

Nine comments were received on this section.

**Comment 1.** Add following as a lead-in sentence: The following requirements are applicable only when you manage biosolids.

**ECOLOGY RESPONSE TO COMMENT 1.** No changes were made in response to the comment. Ecology does not believe that the language in this section suggests that biosolids that are not managed must meet the pathogen reduction requirements. Furthermore, the language in WAC 173-308-150(1) now clearly states that the monitoring requirements (including pathogen reduction) apply to biosolids that are applied to the land or prepared for application to the land.

**Comments 2-5 (the same or a similar comment was submitted by 4 commenters).** We repeat comments made during Ecology’s presentation to the NBMA Board of Directors in January. Absent research or evidence that there is a problem with Alternative 3 & 4 we see no reason to eliminate them as options. This constitutes a significant departure from the federal rule with absolutely no scientific data to base this change. We remind Ecology that all pathogen reduction alternatives are based on the same tests. PFRP processes were proved to be PFRP using the same tests. EPA has repeatedly said that the federal rule is protective of public health and the environment and that there are no documented cases of health problem resulting from Biosolids prepared and distributed or applied in accordance with federal rules. NBMA believes that requiring sampling plans approved by Ecology for determination of Class A quality under alternative 3 and 4 can provide the assurance that a Class A pathogen reduction status is indeed attained.. We believe that Ecology needs to provide some guidance to regional coordinators and to the regulated community on how to put together an acceptable plan. We offer our services in creating a work group that includes Ecology sampling and statistical analysis experts and members of the regulated community for the purpose of creating a guidance document for creating sampling plans for the purpose of determining Class A quality under alternatives 3 and 4.

**ECOLOGY RESPONSE TO COMMENTS 2-5.** No changes were made in response to the comments. The commenters are correct that the same tests were used to evaluate the other alternatives, however, there are two very important differences:

1. For the other alternatives, many, many tests were conducted for the various organisms. In contrast, facilities who have used the alternatives in the state in the past have conducted very limited number of tests (indeed, often only a single sample).
2. For the other alternatives, there's a process which has been shown to significantly reduce pathogenic organisms or indicators of pathogens, regardless of the final organism counts.

During the Ecology presentation to the NBMA Board of Directors at the January meeting and in the public hearings on this proposed rule, Ecology stated, "With respect to Alternative 4, this alternative was placed in the federal rule originally (and subsequently the state rule) to address abandoned piles of biosolids produced by unknown processes. At this time there should be no abandoned piles of biosolids produced by unknown processes, thus Alternative 4 is an anachronism. If piles of biosolids produced by unknown processes exist, Ecology contends that they can and should be managed as Class B biosolids or disposed of, if appropriate. With respect to Alternative 3, this alternative allows a facility to test for enteric viruses and viable helminth ova prior to pathogen treatment, and, if the organisms are found at or below the established standard and the fecal coliform (or *Salmonella* sp.) standard is met, then the biosolids are considered to be Class A. If the organisms are found above the standard, then retesting is required after pathogen treatment, and if the standards are met at that time the material is considered to be Class A. There is no reduction requirement. Growing evidence suggests that the incidence of enteric viruses and viable helminth ova has decreased significantly over the past couple decades. It is not uncommon to find neither in even raw sewage. Thus, meeting the standard either before or after pathogen treatment says absolutely nothing about the quality of the material or the efficacy of the treatment process. Ecology attempted to rewrite Alternative 3 to require sampling in order to show a numerical standard and to provide an indication of the efficacy of the treatment process. However, in doing so, it became clear that all Ecology was writing was a method for meeting an equivalency determination. Since an equivalency determination was already allowed under what was Alternative 6, it became evident that the revised Alternative 3 was nothing more than a redundancy. Thus, Ecology decided to eliminate it also."

In support of Ecology's decisions, please consider the following two quotations.

1. From the *Pathogen Equivalency Committee's Draft Website*: "The use of these monitoring alternatives [Class A – Alternatives 3 and 4 and Class B – Alternative 1] is highly discouraged. Without a defined treatment, the absence of specific organisms can not be used to infer the numbers of other potentially pathogenic organisms in the biosolids. Nor can the absence of these organisms be guaranteed over time sans the barrier a treatment technology provides. Thus, it is the Pathogen Equivalency Committee's opinion that the treatment technology alternatives (i.e., Class A Alternatives 1, 2, 5, and 6, and Class B Alternatives 2 and 3) provide better and more consistent protective value from a human health standpoint than microbial testing in the absence of treatment."
2. From *U.S.A.'s Practices for Controlling Pathogens in Biosolids* (Smith, JE Jr. and R. S. Reimers; in *Proceedings of the Australian Water Associations' Biosolids Specialty III Conference*, June 7-8, 2006): "Alternatives 3 and 4 are not discussed. They depend on monitoring for the presence of enteric viruses and helminth ova. This is only useful when substantial numbers of enteric viruses and helminth ova are present in the raw sludge and monitoring is done to measure the effectiveness of the treatment process. Otherwise it is meaningless since the presence or absence of enteric viruses and helminth ova says nothing about the presence or absence of other pathogens. It is expected and hoped that the two alternatives will be removed from the regulation."

**Comment 6.** In lieu of eliminating Class A-Alternative 4 as proposed by the Department of Ecology, the City of Wenatchee strongly recommends revising this alternative to address the human health concerns and allow the City to continue its highly successful and efficient biosolids operation. The City currently utilizes the arid Eastern Washington climate and UV light to treat the biosolids using drying beds. This process produces exceptional quality biosolids that are readily used for beneficial purposes, and it is very inexpensive to operate and maintain. Any other method for reaching the pathogen reduction requirements for Class A biosolids would require a significant increase in operating costs and could include additional capital expenditures for new equipment. Moreover, we believe that this drying bed method will only become more viable as power costs increase, air quality regulations become more stringent and global warming progresses. The drying bed method is also perfectly suited for many communities in Eastern Washington based on the climate, the availability of land and the low cost of operation. Because of this great potential, a specific alternative in WAC 173-308-170 is imperative to preserving and encouraging the future use of this outstanding, environmentally-conscientious process. Whether the City must seek a new alternative or make

changes to its existing operation to address the human health concerns, immediate compliance with any amendments to Alternative 4 is not feasible physically or economically. The City respectfully requests that the Department of Ecology consider requiring operations to be in compliance with the amendments to this section no later than the end of the current permit cycle (June 2010). We base this request on several facts. First of all, the City has invested over a \$1 million designing and building facilities to utilize Alternative 4. In addition the City has improved the methods employed at the drying beds and monitored the conditioning process easily meeting the Class A standards for over 14 years. Furthermore, the final application sites are located on agricultural lands where there is virtually no human contact with the biosolids. Therefore the continued use and/or extension of the deadline for the use of Alternative 4 does not create a risk to human or environmental health.

**Comment 7.** The agency is proposing a change to the regulation that would encourage research of biosolids. We support and commend the agency in this effort and strongly encourage the agency to specifically target research projects that are designed to evaluate the development and design of drying beds and other “low tech” technologies for conditioning biosolids. Any other method of biosolids conditioning requires energy which means it must rely on power generated via water through a turbine or burning of coal, oil or gas powered generators to drive the process. Drying beds on the other hand are an efficient and economical use of solar and wind energy.

The elimination of low tech methods such as Alternative 3 & 4 to stabilize and condition biosolids into a safe and effective soil amendment is frustrating and discouraging on many levels. We believe this is the wrong path for the agency to embark upon considering the projections of scientists regarding global climate changes, energy demands and the need to develop safe and efficient methods of waste reduction and reuse. Eliminating these alternatives will only increase the cost and put greater demand on diminishing power resources with no discernable protection of public health. On the other hand research and development of low tech, cost effective methods would be a more forward thinking approach for the agency to take.

**Comment 8 (oral at public hearing).** The comment we would like to make is that the implementation date is far too soon for us to comply in any realistic manner. And, we would request that any implementation of these rules be extended to the end of our permit period, which I believe is 2010. And, in the meantime, because you are trying to encourage research here, that we would encourage the Department of Ecology to partner with those cities that use drying beds and perform some research with us on this to try and develop an alternative that we can eventually implement and use in the future. Drying beds are efficient, they’re effective. Our testing over the last 12 years has...we have never been out of compliance with the parameters given to us for Class A, exceptional quality biosolids by using the process that we use through anaerobic digestion, sludge de-watering, and drying, and it is cost effective for communities our size. And, I think that’s what we would like to see, because June of this year, we’re in a mess if you impose that on us that year, or even in the next two years. It takes a long time to get an application site for a Class B where we are. It’s a long ways to go. So, we’d like to keep that. That’s about it.

**Comment 9 (oral at public hearing).** I agree with all the comments that were just previously made by the city of Wenatchee.

**ECOLOGY RESPONSE TO COMMENTS 6-9.** For responses to comments 6-9 please see Ecology’s response to Comments 2-5, above, and the following. The City of Wenatchee is the only facility in the state actively using either Alternative 3 or 4 to demonstrate Class A for pathogens. The City has an excellent compliance history and uses a single land application site for all the biosolids they produce. This site is well suited for biosolids applications and has limited public access.

Ecology has agreed to issue Final Coverage to the City of Wenatchee under the *General Permit for Biosolids Management* that will allow it to manage its biosolids as Class A if the following conditions are met:

1. Sampling of treated and stockpiled material is conducted prior to land application.
2. The sampling includes at least 3 separate composite samples, each separately analyzed for fecal coliform, enteric viruses, and viable helminth ova concentrations.
3. The analysis results for each sample meets the numerical standards previously required under the now deleted Class A – Alternative 4 (i.e., fecal coliform at <1,000 MPN per dry gram, enteric viruses at <1 plaque-forming unit per for 4 dry grams, and viable helminth ova at <1 per 4 dry grams).



4. Ecology has reviewed the sampling results and has issued an equivalency determination in accordance with WAC 173-308-170(4) of the revised rule prior to land application. This equivalency determination will be valid for one year.
5. The biosolids are land applied at the City of Wenatchee's current biosolids application site, which includes site access restrictions.

Ecology agrees with Comment 7 and in direct communication with the City of Wenatchee has agreed to assist the City of Wenatchee in its efforts to attain an equivalency determination through whatever means are or become available. Ecology believes that drying beds can be a low-cost, low-energy consuming, and highly effective treatment alternative—especially in the arid portions of the state where hot, dry, and windy summers exist. Sadly, however, the data are not adequate at this time to provide convincing evidence that the result is a Class A biosolids.

## **CHAPTER 22 WAC 173-308-180 VECTOR ATTRACTION REDUCTION.**

### **22.1 Overview of Changes**

No changes were made to this section.

### **22.2 Response to Comments**

One comment was received on this section.

**Comment 1.** Add following as a lead-in sentence: The following requirements are applicable only when you manage biosolids.

**ECOLOGY RESPONSE.** No changes were made in response to the comment. Ecology does not believe that the language in this section suggests that biosolids that are not managed must meet the vector attraction reduction requirements. Furthermore, the language in WAC 173-308-150(1) now clearly states that the monitoring requirements (including vector attraction reduction) apply to biosolids that are applied to the land or prepared for application to the land.

**CHAPTER 23 WAC 173-308-190**  
**PROTECTING WATERS OF THE STATE—**  
**AGRONOMIC RATE REQUIREMENT.**

**23.1 Overview of Changes**

No changes were made to this section. However, the language regarding details for a research plan were moved to the new section on research exemptions (WAC 173-308-192).

**23.2 Response to Comments**

No comments were received on this section.

## **CHAPTER 24 WAC 173-308-191 PROTECTION OF ENDANGERED OR THREATENED SPECIES.**

### **24.1 Overview of Changes**

This is a new section. The language was taken from the various land application sections contained in the original rule (WAC 173-308-210, -220, etc.) and placed into a stand-alone section. Also, the rule citations were replaced with the statute citation, and the federal Endangered Species Act was added as a citation as well.

### **24.2 Response to Comments**

No comments were received on this section.

## CHAPTER 25 WAC 173-308-192 EXEMPTIONS FOR RESEARCH.

### 25.1 Overview of Changes

This is a new section. This section provides exemptions from the reporting and permitting requirements for research projects conducted in accordance with an Ecology-approved research plan. The reason for this new section is because Ecology hopes to encourage legitimate, useful research of biosolids-related issues. Requiring a permit without exception has had the effect of discouraging some research according to some researchers. Under the original rule, research projects where nonexceptional quality biosolids were applied were required to obtain a permit and to go through the entire permitting process. This section includes slightly revised language previously found in WAC 173-308-190(2)(a) through (c) in the original rule.

### 25.2 Response to Comments

Four comments were received on this section.

**Comments 1-3 (the same comment was submitted by 3 commenters).** The NBMA supports the exemptions for research in this section of the rule. We would suggest that Ecology remove the 10 acre restriction in size and rely on Ecology's own judgment as to whether the size of the research project is appropriate to support the goals of the research and demonstration. WAC 173-308-192 (2) (c) requires an explanation for the sizing of the research plots and restricts the size to no greater than necessary to accomplish the objectives of the research. This section provides adequate protection from nefarious over sized research projects.

**Comment 4.** King County supports the exemptions for research in this section of the rule. We suggest that this be extended to demonstration projects as well. By Ecology's definition, a "site" includes buffer areas; given Ecology's proposed language, it is not clear whether this exemption would accommodate research sites where the biosolids-applied area is less than 10 acres, but the total area, including buffers or other plots may be greater than 10 acres. We recommend that Ecology remove the 10-acre restriction in site size and allow a case by case determination on whether the size of a research project is appropriate to support the goals of the research and demonstration. WAC 173-308-192 (2) (c) requires an explanation for the sizing of the research plots and restricts the size to no greater than necessary to accomplish the objectives of the research.

**ECOLOGY RESPONSE TO COMMENTS 1-4.** The section was revised in response to the comments. The language limiting the size in individual sites receiving biosolids to 10 acres was deleted. This language was found in WAC 173-308-192(1) of the proposed rule. As the commenters point out, other language in this section already requires that the sizing of plots receiving biosolids be minimized, and it requires an explanation of the sizing.

## **CHAPTER 26 WAC 173-308-193 MANAGEMENT AND EXEMPTIONS FOR SEPTAGE FROM COMPOSTING TOILETS.**

### **26.1 Overview of Changes**

This is a new section. This section clearly states Ecology's position that the material from composting toilets is considered to be septage and that it must either be sent to a permitted facility for further treatment or be managed as septage in accordance with the provisions of WAC 173-308-270. This section also provides an exemption from the reporting and permitting requirements of the rule unless Ecology otherwise determines that a permit is necessary. The revised rule redefined TWTDS in WAC 173-308-080 to include SMFs. Composting toilet systems could be considered to meet the definition of a SMF and, therefore, a TWTDS. Except for certain composting facilities with a solid waste permit, all TWTDS are required to obtain a permit. It would be impractical and of questionable value to require a permit for all composting toilet systems whose output may be applied to the land. Thus, the new section was included in the revised rule. The original rule was silent on composting toilets. Program policy has been to consider the output to be septage (a view shared by the Department of Health), but a permit was not required for its management. If the material was sent to a permitted facility for management, the composting toilet operation was exempt from the rule. If the material was land applied, the operation had to meet the management and recordkeeping requirements. The final rule does not effectively change the way such material was regulated under the original rule, but it does clarify issues surrounding such systems.

### **26.2 Response to Comments**

Four comments were received on this section. Clarification language was added and other clarification changes were made in response to one of the comments.

**Comments 1-3 (the same comment was submitted by 3 commenters).** We see the exemptions granted for composting toilets as a defacto endorsement of a product of questionable quality. The NBMA suggests that Ecology either redefine this material as something other than domestic septage or provide some sort of caution as to the use of this material.

**ECOLOGY RESPONSE TO COMMENTS 1-3.** No changes were made to this section in response to the comments. Ecology does not agree that the exemptions granted represent a defacto endorsement of the material. Rather the exemptions and this section were needed to correct a potentially unclear regulatory structure. Ecology believes that the language in the revised section properly states the management requirements for such material and that it reflects adequate caution. The text clearly states that the material must either be further treated or managed in accordance with the septage section of the rule (WAC 173-308-270).

**Comment 4.** We find (2) (3) and (4) to be in apparent contradiction to each other and do not quite understand what we are reading although we think we understand the intent. It appears the agency intends that the owner/operator of a composting toilet (also known as a waterless toilet) need not worry about compliance with provisions of 308 if they give their composted product to a facility which is permitted to handle it as septage. Tenelco concurs. It appears however that the agency intends that the person who does land apply the product must comply with the regulations regardless of their permit status. Consequently then a home owner or any other person might accept this material and apply it to the land without a permit if they follow the rules for land application of septage. We find this at odds with new provisions requiring permits in all cases for the land application of septage. Section 4 apparently intends to exempt a person from reporting on such a small scale activity but it might be read to imply that all such activities at a facility where composting toilet residuals are applied to the land are exempt which should not be the case. We also note that (4) exempts a person from permitting requirements unless a permit is required; this seems self evident. All-in-all we think we are with the agency in spirit but recommend a rewrite of the section to clarify intent. Specifically we recommend the agency include at least a parenthetical reference to "waterless toilets" and we recommend that the agency address the scenario where an owner/operator other person would land apply this material without permit coverage. If the agency intends to allow that then the rule should clearly say "Owners/operators may apply waterless

toilet residuals to the land or obtain the services of second parties to do so on their behalf so long as the requirements of 270 are met.

**ECOLOGY RESPONSE TO COMMENT 4.** The commenter is correct about the intentions, and the language in the section has been revised to better express those intentions. As stated above, the reason this section is needed is three-fold:

1. Because an SMF as defined in WAC 173-308-080 could be construed to include composting toilet systems.
2. Because Ecology wants to clarify that the material is consider septage and that it must be managed as such.
3. Because Ecology does not wish to place in regulation an absolute requirement that septage from composting toilet systems be permitted in all cases.

**CHAPTER 27 WAC 173-308-200**  
**EXEMPTIONS BASED ON THE EXCEPTIONAL**  
**QUALITY OF BIOSOLIDS.**

**27.1 Overview of Changes**

There were no changes to this section.

**27.2 Response to Comments**

No comments were received on this section.



## CHAPTER 28 WAC 173-308-205 SIGNIFICANTLY REMOVE MANUFACTURED INERTS.

### 28.1 Overview of Changes

This is a new section. This section imposes requirements for the removal of manufactured inerts from biosolids and sewage sludge and standards for biosolids products applied to the land or sold or given away for application to the land. Ecology is required by statute (Chapter 70.95J RCW) to create a state biosolids program that encourages the maximum beneficial use of biosolids. The existence of garbage in biosolids limits the options for beneficial use due to aesthetic concerns in addition to potentially posing a risk to human health due to sharps. Grinding has been allowed to reduce recognizables. However, grinding only reduces the size of garbage, it does not remove it. Under the original rule, only septage had any form of requirement regarding recognizables. This requirement mandated that screening or grinding or another approved method be used to remove or reduce recognizables in septage.

### 28.2 Response to Comments

Twelve comments were received on this section, and the language was revised in response to these comments. In general commenters expressed a desire for more “objective” requirements/standards than the highly “subjective” requirements/standards presented in the proposed rule text. Additionally, it should be noted that the final language was developed in-part through informal discussions with and assistance from the BRRAG.

**Comments 1-3 (the same comment was submitted by 3 commenters).** Biosolids (including septage) or sewage sludge must contain less than X manufactured inerts per unit of application area. Meeting this requirement may occur at any point in the treatment process. Since the objective of this section is to limit the amount of trash that is being land applied we believe a limit on the actual amount of “manufactured inerts” in Biosolids is likely to be more successful less subjective and easier to measure than measuring (or evaluating) the efficacy of a treatment plant in reducing manufactured inerts across its processes. In effect we do not care how much trash is coming into the plant as long as the Biosolids being land applied or distributed is relatively free of trash.

**Comment 4.** We suggest that Ecology set a limit on the amount of “manufactured inerts” in biosolids, and that a practical method for measurement be developed in collaboration with stakeholders. We suggest removing the term “sewage sludge” from this requirement, because only biosolids may be land applied.

**Comment 5 (oral at public hearing).** The other thing that I would bring up also, is, that in regards to the reduction of recognizables, I agree that there should not be garbage put out in fields, but the wording of “significant removal” does not really describe what they want us to do. It leaves it too vague, and I think it needs to be spelled out a little clearly on what that means. One of the examples I gave was if you had a 5 gallon bucket of biosolids that you’re ready to take out into the field, and you were to dump it on a table and spread it out in an area maybe a square yard area, and you were to pick through the whole thing and take out what recognizables you might find in there, it may not exceed a certain amount – maybe a square inch, or a couple of square inch, or whatever it might be. I don’t know what a good number would be on that, but it’s something that needs to be looked into.

**Comment 6.** Most small-to-medium sized wastewater treatment facilities already produce inert free biosolids that have never been “treated by a process such as physical screening or other method to significantly remove manufactured inerts”. This requirement will impose costly and unnecessary requirements upon land applicators who already meet the intent of the rule. When this verbiage was first introduced by the BRAGG group I ask Daniel Thompson about the screening requirement. He said that the rule would eventually say that “biosolids would need to be 95% garbage free” and that the intent of the rule is to eliminate garbage. Rather than impose a physical restriction to biosolids processing that is very interpretable (e.g. “significantly remove” has no quantitative value) wouldn’t it be better to impose a restriction on the quality of the material that is to be applied? This new rule would impose a significant economic impact on some land applicators in the form of adequate screening and ancillary equipment that was not initially analyzed in the Small Business Economic Impact Statement for proposed amendments to Chapter 173-308 Biosolids Management.

**Comment 7.** (2) states that all facilities must meet this requirement by July 1 2009 (exception noted) or submit a plan to the department by July 1 2008 that specifies how this standard will be met by July 1 2011. Hanford has a sewage lagoon which treats domestic sewage. There is no plan to remove biosolids for next several years. It will be difficult to meet this requirement in the give time frame. Suggestion: Add following as a lead-in sentence: The following requirements are applicable only when you manage biosolids.

**Comments 8-10 (the same comment was submitted by 3 commenters).** The installation of screening may require more than 2 years to implement. We suggest this language for (2) “Facilities must meet this requirement by July 2009 or amend their facility plan to include screening (or other method for meeting this requirement) within the next NPDES permit cycle

**Comment 11.** Suggested wording: “Facilities must meet this requirement by July 1, 2009 or amend their facility plan to include screening (or other method for meeting this requirement) within the next NPDES permit cycle.” For King County, the cost to upgrade screening at one of our large treatment plants would be a multi-million dollar capital project that would require at least two to four years to design and construct. Will design criteria be integrated into Ecology’s Criteria for Sewage Works Design (Orange Book)?

**Comment 12.** Tenelco has already offered comments in the definitions section but finds the language of 205 somewhat more to our liking. It appears that the intent of this section is to require the removal of inerts by a certain date and in the interim allow the continued “reduction.” Perhaps this implies then a temporary stop gap for facilities which are using grinders or less effective screening systems? We note however that there is no specified standard for what constitutes significant removal. The agency will need to provide either a design or performance based standard in order for facilities to specify the proper equipment to meet the imposed deadlines. As a final note we believe the agency underestimates the amount of manufactured inerts in biosolids but especially in septage. In the latter case we do not believe the agency should issue any permit for any septage land application facility unless it includes a commitment to implement screening by the July 2009 deadline and preferably earlier.

**ECOLOGY RESPONSE TO COMMENTS 1-12.** The section was revised from the proposed rule in response to the above comments. The final rule language imposes a requirement for a removal of “manufactured inerts” for all products (including septage) at some point in the wastewater treatment or biosolids manufacturing process. The removal requirement can be met by the use of a bar screen with a maximum aperture of 3/8” or by an equivalent or better process that is approved by Ecology. Facilities will have five years to meet this requirement. Facilities that will not handle biosolids or sewage sludge before five years, must meet the requirement at the time of final disposition. In addition, the rule imposes a requirement that all material that is beneficially used contain less than one percent of recognizable manufactured inerts. The one percent recognizable manufactured inerts standard being imposed is the same standard as that for composts in accordance with Chapter 173-350 WAC. The definition in WAC 173-308-080 for “manufactured inerts” is the same definition found in the *Interim Guidelines for Compost Quality* (Ecology publication #94-080). As part of the revision effort based on the comments received, the definition for “significantly remove manufactured inerts” in WAC 173-308-080 was deleted from the final rule because the revised section language rendered the definition unnecessary.

The numerous changes made to this section are for clarification purposes and to in-part place in rule the policy that the department intended to develop regarding this issue. The changes also seek to provide facilities with a clearer and more objective standard and to simplify the section. A new WAC 173-308-205(2) was added to provide facilities with some guidance on meeting the removal requirement in subsection (1). It does not mandate or eliminate any alternative for meeting the requirement. 2011 was changed to 2012 in order to accommodate the typical five-year planning horizon that some facilities must use. The earlier dates for compliance were removed for simplicity purposes. The less than one percent standard cited in WAC 173-308-205(4) was added to provide facilities with an objective standard for recognizables. Note, that this standard is the same standard the department applies to composts in accordance with Table B in WAC 173-350-220(4)(a)(viii)(E).

The final language reads:

- (1) Except for sewage sludge approved for long-term disposal in accordance with WAC 173-308-300(9), all biosolids (including septage) or sewage sludge must be treated by a process such as physical screening or

another method to significantly remove manufactured inerts prior to final disposition. Meeting this requirement may occur at any point in the wastewater treatment or biosolids manufacturing process.

- (2) **Options for meeting the requirement.** Meeting the requirement in subsection (1) of this section can be accomplished by either of the following:
  - (a) Screening through a bar screen with a maximum aperture of 3/8 inch (0.95 cm).
  - (b) Obtaining approval from the department for an alternative method that achieves a removal rate similar to or greater than that achieved by the screening standard in (a) of this subsection.
- (3) **Timing for meeting the requirement.** The requirement in subsection (1) of this section must be met by July 1, 2012, or at the time of final disposition if the material will not be managed prior to July 1, 2012.
- (4) Regardless of the date that the requirement in subsection (1) of this section is met, biosolids (including septage) that are land applied or sold or given-away in a bag or other container must contain less than one percent by volume recognizable manufactured inerts.

## **CHAPTER 29 WAC 173-308-210**

### **BULK BIOSOLIDS APPLIED TO AGRICULTURAL LAND, FOREST LAND, A PUBLIC CONTACT SITE, OR A LAND RECLAMATION SITE.**

#### **29.1 Overview of Changes**

This section was combined with the former WAC 173-308-220, WAC 173-308-230, and WAC 173-308-240 in the original rule for simplification purposes and to shorten the rule. In addition, the redundant language regarding meeting the recordkeeping and reporting requirements in WAC 173-308-290 and WAC 173-308-295, respectively, was removed, and language requiring a significant removal of recognizables in accordance with WAC 173-308-205 was added. Also, new language specifying further how sites must be posted was added. This is found in WAC 173-308-210(5)(a)(x) and includes the information required for signs that was previously contained in WAC 173-308-275 in the original rule.

#### **29.2 Response to Comments**

One comment was received on this section.

**Comment 1.** Under subsection (5)(a)(x), the rule states that signs must be posted at all significant points of access and at least every ½ miles around the perimeter of the application site. For clarity, the TPCHD recommends that language be inserted in this subsection that allows for the department to require more stringent spacing of posting at a given application site, if deemed necessary.

**ECOLOGY RESPONSE TO COMMENT 1.** No changes were made in response to this comment. The reason this new language was included was because the regulated community expressed during a BRRAG meeting that some specificity was needed. Ecology added “at least every ½ miles” as a minimum standard. If the permitting authority wishes to impose a stricter standard, it can do so as an additional or more stringent requirement allowed under WAC 173-308-310(19) or through discussions with the permittee as part of the approval process for a Site Specific Land Application Plan (SSLAP).

## **CHAPTER 30 WAC 173-308-250**

### **BULK BIOSOLIDS APPLIED TO A LAWN OR HOME GARDEN.**

#### **30.1 Overview of Changes**

This section was changed from the original by removing the redundant language regarding meeting the recordkeeping and reporting requirements in WAC 173-308-290 and WAC 173-308-295, respectively, and by adding language stating that the requirements for a significant removal of recognizables in WAC 173-308-205 must be met.

#### **30.2 Response to Comments**

No comments were received on this section.

## **CHAPTER 31 WAC 173-308-260 BIOSOLIDS SOLD OR GIVEN AWAY IN A BAG OR OTHER CONTAINER.**

### **31.1 Overview of Changes**

This section was changed by requiring that all biosolids that are sold or given away in a bag or other container meet the criteria to be classified as exceptional quality. This is already a requirement in the *General Permit for Biosolids Management*. The federal biosolids rule is expected to be revised in the future to require this also. This change was needed for the protection of human health and the environment from pollutants, for the purposes of consistency with the *General Permit for Biosolids Management*, and in preparation for anticipated federal program changes. Changes related to this amendment include the removal of Table 4 in WAC 173-308-160 and WAC 173-308-900 in the original rule, as both became unnecessary. In addition, redundant language regarding meeting the recordkeeping and reporting requirements in WAC 173-308-290 and WAC 173-308-295, respectively, was removed, and language stating that the requirements for a significant removal of recognizables in WAC 173-308-205 must be met was added.

### **31.2 Response to Comments**

No comments were received on this section.

## CHAPTER 32 WAC 173-308-270 SEPTAGE APPLIED TO THE LAND.

### 32.1 Overview of Changes

This section was amended considerably from the original. The pathogen and vector attraction reduction subsections were combined. Redundant language regarding meeting the recordkeeping and reporting requirements in WAC 173-308-290 and WAC 173-308-295, respectively, was removed. Language stating that the requirements for a significant removal of recognizables in WAC 173-308-205 must be met was added. New language specifying further how sites must be posted was added. The sign posting language is found in WAC 173-308-270(4)(k), and includes the information required for signs that was previously contained in WAC 173-308-275 in the original rule.

Three, somewhat more substantial changes were made also.

1. In WAC 173-308-270(5), the final rule allows Ecology to impose a more stringent application rate than the standard rate allowed for septage if deemed necessary. This could apply to any mixtures of domestic septage with industrial or commercial septage as well as mixtures including poorly stabilized septage. The reason for this is that evidence suggests that the nitrogen concentrations of unstabilized domestic septage and some non-domestic septage may be higher than that in domestic septage from households. The standard formula developed by EPA and believed to be conservative was based strictly on domestic septage. The imposition of a more stringent application rate might also apply to other situations where a more stringent rate is deemed to be appropriate (e.g., soils with elevated mineral nitrogen concentrations). So, in order to protect human health and the environment from pollutants and to ensure agronomic application rates, this addition was included.
2. Imposed the same site management and access restriction requirements in WAC 173-308-270(4) for sites receiving septage, whether the material is pH-stabilized or not. Effectively, all this requires in addition to the original rule requirements is that grazing of domestic animals not occur for at least 30 days following application of pH-stabilized septage and that sites are posted for 30 days or one year following application (the length of time depends on the degree of likelihood of public contact). This is already a requirement in the *General Permit for Biosolids Management*. Under the original rule, if septage was pH-stabilized, there was no requirement for grazing restrictions or site posting. This change was needed for the protection of human health and the environment from pathogens, to provide greater consistency with the *General Permit for Biosolids Management*, and for simplification.
3. Effectively replaced the language in the original rule which referred to septage “*that has had a sufficiently long residency time to be considered largely stabilized*” (this was in the definition for “Domestic septage—Class I”) with the phrase “*from households*”, and used the latter phrase in WAC 173-308-270(3)(a) and (b).

### 32.2 Response to Comments

Eleven comments were received on this section. Some revisions were made in response to the comments as described below.

**Comment 1.** Is all septage applied to the land in the jurisdiction of the department required to be managed as biosolids originating from sewage sludge and meet the requirements of section –270 *Septage applied to the land*? Or, can a septage applier instead decide to manage septage in accordance with the requirements of the federal exemption for septage land application?

**ECOLOGY RESPONSE TO COMMENT 1.** SMFs managing septage as septage must manage the material in accordance with the section. Facilities seeking to manage septage as “biosolids originating from sewage sludge” must do so in accordance with the applicable sections of the rule for the class of biosolids the material achieves. The language and formatting in this section were revised to clarify this issue. The beginning of this section now reads:

“This section contains the requirements for the land application of septage as defined in WAC 173-308-080.

This section does not apply to “septage managed as biosolids originating from sewage sludge” as defined in WAC 173-308-080. Facilities who seek to manage their septage as biosolids must meet all of the requirements applicable to the particular classification of biosolids into which it falls.”

With respect to the commenter’s use of the phrase “federal exemption for septage land application”, Ecology believes the commenter is referring the permitting exemption under the federal program and previously under the state program for certain septage management activities. There is no longer an exemption from the permitting requirement in the state program. All SMFs must obtain a permit issued under WAC 173-308-310, as SMFs are now included in the definition in this rule as TWTDS in WAC 173-308-080.

**Comments 2-4 (the same comment was submitted by 3 commenters).** The NBMA recognizes that septage is and will continue to be a difficult management problem. We continue to encourage Ecology review and implement the findings of the Septage Management Action Committee (SMAC). In particular the NBMA favors a policy that encourages the development of centralized septage facilities. The NBMA believes that determining if and when class III septage is “largely stabilized will be difficult making enforcement of this section difficult. We believe it would be prudent to reiterate the requirement for screening (or removal of manufactured or inert wastes) in this section in order to make this requirement more visible to those only interested in septage.

**Comment 5.** (3)(a) and (b): "For loads of septage that are composed of at least seventy-five percent by volume of septage that has been in a tank for at least two year". This statement suggests that the septage may be mixed with something. No septage is in a tank for "at least two years" because the septage is always being added. Septic are always in use. You have raw material along with digested material in every load. Portable toilet vault toilets marine sanitation devices RV holding tanks. Most all are designed for short term use and then service or pump daily weekly or monthly. By this definitions nothing would pass for any land application for septage.. My concern is that we manage to have the definitions allow for the applications of septage with out violating the rules right up front.

**Comment 6.** (3)(a) applies criteria to loads that are composed of at least seventy-five percent by volume of septage that has been in a tank for at least two years or which conversely under (3)(b) are composed of greater than twenty-five percent by volume of septage that has not been in a tank for at least two years. It appears that Ecology intended here to carry forward in a slightly different form the original concept in the rule which identified Class I septage as material having had a sufficiently long residency time to be considered largely stabilized while Class II septage came from holding tanks although no residency time was noted. Tenelco in uncertain as to the significance of the two-year threshold and finds the timeframe to be problematic. Pumpers will be in no position to really know the length of residency time of material in a tank. They may service systems where owners are not present and owners or persons on site may not know the history where properties have changed hands. Moreover if they could know on inspection the length of residency time the requirement would still be problematic. Say for example a 3 000 gallon pumper services two facilities where a total of 2 000 gallons of long-residency time material are pumped. Upon arriving at the third facility many miles distant at the end of the work day the driver learns that the material has only been in the tank for about a year. The pumper now faces a different set of regulations or alternatively must avoid servicing the tank and potentially lose the business or return on another day at greater expense. We note that Ecology has consolidated the definitions of the old Type I II and III septage and eliminated grease trap waste (the subject of another comment from Tenelco) in part in order to be more consistent with federal rules. Extending this same logic federal rules make no distinction regarding septage held for a short or long period of time. Instead the rules rely on the most stringent site management and access restrictions for septage management to protect public health and the environment. We believe this continues to be the best way to manage septage.

**Comment 7.** (5) imposes unrealistic material tracking goals. Few septage haulers actually know or can ascertain how long septage has been in a septic tank with any degree of accuracy. This information is typically only know by the home owner and once home owners figure out that it is more expensive (because septage haulers will have to charge more for septage that requires additional treatment) it is doubtful that accurate information will be provided by home owners. In addition some septage haulers do not apply their own material. Instead they deliver the material to a permitted land application facility and transfer it to large tanks that are often mixed with material from other locations. The new rule would require land appliers to install additional tankage to segregate longer digested material from material that has been digested for less than two years. Does substantial evidence exist to show that the character of septage differs greatly after two years in a tank versus less than two years in a tank? This new rule would



impose a significant economic impact to small land appliers in the form of additional tankage and additional management to identify and control two separate types of material. This impact was not accounted for in the Small Business Economic Impact Statement for proposed amendments to Chapter 173-308 Biosolids Management. (NOTE: this comment appears to be on WAC 173-308-270(3) rather than (5).)

**ECOLOGY RESPONSE TO COMMENTS 2-7.** In response to the comments, Ecology has made revisions to WAC 173-308-270(3)(a) and (b) by replacing the phrase “that has been in a tank for at least two years” with “from households” in order to simplify the language. This is not considered to be a substantial departure from the proposed text because in virtually all cases septage from households will have been in a tank for at least two years. Commenters 2-4 suggested including a reiteration of the “removal of manufactured inerts” requirement. This redundancy was already included in the rule and can be found in WAC 173-308-270(1).

**Comments 8-10 (the same comment was submitted by 3 commenters).** (4)(k)(iii): The NBMA believes that the sign should specifically call out that the material being applied is septage. Ecology differentiates between Biosolids and septage in its rule. We believe that differences between the materials and between the management practices are different enough to warrant explicit wording in public notice postings.

**ECOLOGY RESPONSE TO COMMENTS 8-10.** Ecology agrees with the commenters and has changed “biosolids” to “septage” in WAC 173-308-270(4)(k)(iii).

**Comment 11.** (5)(b): This new language grants Ecology discretionary authority to require a different but undefined method of calculating an application rate for septage based on characteristics of the material and the application site but continues to limit the upper end rate to what is allowed under Equation 3 (original federal calculation). It seems inequitable to us that the agency wishes to assert the use of an undefined mechanism for calculating an agronomic rate on an entirely discretionary basis and which would lead to a lower application rate and yet at the same time does not propose to allow a higher application rate if one can be justified. Tenelco believes this option is already available to the agency via permitting if justified but from the language in the rule it is not clear to Tenelco whether the agency expects to impose this rate as a permit condition or outside the context of a permit on a case-by-case basis.

**ECOLOGY RESPONSE TO COMMENT 11.** No changes were made in response to this comment. There is an opportunity to potentially apply at a higher rate than allowed by Equation 3 in this section. That option exists by managing the septage as “septage managed as biosolids originating from sewage sludge” as defined in WAC 173-308-080. The rate determined by Equation 3 only applies to septage managed as such. Ecology has described its rationale for adding this new subsection above. The authority granted by this new subsection is intended to be applied on a case-by-case basis and without the need for an “additional or more stringent” permit condition allowed under WAC 173-308-310(19). Regardless, if a permittee does not agree with Ecology’s requirement it can appeal the decision in accordance with WAC 173-308-042.

## **CHAPTER 33 WAC 173-308-280**

### **REQUIREMENTS FOR FACILITIES STORING BIOSOLIDS OR SEWAGE SLUDGE.**

#### **33.1 Overview of Changes**

Two revisions were made to this section.

1. The final rule provides an option for an exemption from the storage requirements for storage covered under another environmental permit. This revision provides simplification for permittees, reduces the workload for Ecology staff, and eliminates an unnecessary dual permitting requirement for situations where storage is adequately covered under another permit and does not pose a risk to human health or the environment.
2. The final rule provides for the “grandfathering-in” of surface impoundments meeting the Chapter 173-304 WAC standards, but imposes the Chapter 173-350 WAC surface impoundment standards for new or upgraded surface impoundments. The surface impoundment standards in Chapter 173-350 WAC were developed in part to address biosolids/sewage sludge/septage storage. These standards replaced those found in Chapter 173-304 WAC. However, surface impoundments approved under the Chapter 173-304 WAC standards may be functioning adequately, and it seems unreasonable to expect an upgrade to a stricter standard if this is the case. If surface impoundments approved using the Chapter 173-304 WAC standards are likely to result in the contamination of groundwater, surface water, air, or land, then Ecology can require an upgrade (see WAC 173-308-280(3)). The revisions are needed to reduce the risk to the environment from the potential release of pollutants in stored biosolids/sewage sludge/septage in surface impoundments while allowing for existing facilities to continue operation without upgrading if they are not posing a risk to human health or the environment.

#### **33.2 Response to Comments**

No comments were received on this section.

## CHAPTER 34 WAC 173-308-290 RECORDKEEPING.

### 34.1 Overview of Changes

The section was changed in two ways. The first change was the addition of a requirement (found in WAC 173-308-290(2)(j), (k), and (m)) that preparers of biosolids or sewage sludge maintain the following additional records:

- The amount stored onsite.
- The amount transferred to another facility for further treatment and the name of the other treatment facility.
- The amount transferred for incineration and the name of the incineration facility.

The second change was the addition of a requirement (found in WAC 173-308-290(3)(a) through (f)) that applicers of nonexceptional quality biosolids maintain the following additional records:

- The location of each site, either by street address, the latitude and longitude of the approximate center, or the section, township and range of each ¼ section, and a map(s) with the application area(s) clearly shown.
- The number of acres in each site on which biosolids were applied.
- The date biosolids were applied to each site.
- The targeted vegetation grown on each site and its nitrogen requirement.
- The rate, in dry tons per acre per year, at which biosolids are applied to each site.
- The amount, in dry tons, of biosolids applied to each site.

Ecology has consistently requested such information as part of the annual biosolids reports since 1998, and the vast majority of facilities have complied with the request. Thus, facilities are already keeping such records. Such records are deemed to be a reasonable expectation, and the information is necessary so that Ecology can monitor biosolids and sewage sludge management practices across the state and ensure compliance with the rule and permits.

### 34.2 Response to Comments

Six comments were received on this section. Some revisions were made to the section in response to the comments.

**Comment 1.** The paragraph leads in with a reference to “both” and yet goes on to describe three entities.

**Comment 2.** Remove the words “Both the” from the first sentence of the section.

**ECOLOGY RESPONSE TO COMMENTS 1-2.** This grammatical error has been corrected in response to comments 1 and 2.

**Comments 3-6 (the same or a similar comment was submitted by 4 commenters)** (3)(d): The targeted vegetation grown on each site and its nitrogen requirement. We recommend that ‘annual’ be removed from item (d) to better reflect operations on sites with non-annual application intervals e.g. forests may be applied every 3-4 years dry land wheat with 2 year (or more) fallow rotation rangeland given a 5-year application rate.

**ECOLOGY RESPONSE TO COMMENTS 3-6.** “Annual” was removed from WAC 173-308-290(1)(d) because some systems that receive biosolids infrequently (forests, rangeland) may not have an “annual” nitrogen requirement. However, “annual” was not removed from WAC 173-308-290(4)(g) because septage rates are defined by the annual nitrogen requirement of the vegetation per the federal biosolids rule.

## CHAPTER 35 WAC 173-308-295 ANNUAL REPORTS.

### 35.1 Overview of Changes

This section was changed by removing most of the language and inserting new language that clearly requires that all permittees submit an annual report to Ecology on their management activities from the previous calendar year. Under the original rule only major facilities and Class I facilities were required to submit a report. Other facilities were required to report only upon a request from Ecology. However, in reality, this is not a substantial change because each year since the inception of the state biosolids program in 1998, Ecology has sent a letter and a copy of a report form to all permittees. This was considered to be a written request from Ecology for completion of an annual report. Thus, all facilities were already submitting annual reports. The change was needed to clarify expectations and implement long-standing program policy, and the information obtained in the reports is deemed necessary to ensure compliance with the rule.

### 35.2 Response to Comments

Two comments were received on this section. Both comments were on the annual report form, not on the requirement to submit a report.

**Comment 1.** The Annual Biosolids Report could be greatly simplified for small WWTFs by first asking if we have removed any biosolids from our plant. If the answer is no that should be the last question on the form.

**Comment 2.** Add following at the top of the form: “Did you manage Biosolids during the calendar Year \_\_\_\_? If yes proceed if no sign and mail the form.” This comment will reduce burden on facilities that do not manage or have not managed biosolids during the reporting period.

**ECOLOGY RESPONSE TO COMMENTS 1-2.** Thank you for the comments. Ecology has made significant efforts over the past few years to try to simplify and shorten the report forms. Ecology will be revising the forms again this year, and will consider these comments as part of that revision effort.

**CHAPTER 36 WAC 173-308-300  
DISPOSAL OF SEWAGE SLUDGE IN MUNICIPAL  
SOLID WASTE LANDFILL UNITS AND USE OF  
BIOSOLIDS IN MUNICIPAL SOLID WASTE LANDFILL  
OPERATIONS.**

**36.1 Overview of Changes**

This section was changed by adding clarifying language stating Ecology's long-standing policy that biosolids applied to intermediate or final cover at landfills must be used for the purposes of establishing a vegetative cover in order to be considered as a "beneficial use". This language is found in WAC 173-308-300(6)(b). Another change to this section was to revise confusing language regarding the local health jurisdiction responsible for approving disposal. The reworded language specifies that it is the local health jurisdiction responsible for the landfill where the material is proposed to be disposed that is responsible for approving disposal.

**36.2 Response to Comments**

No comments were received on this section.

## CHAPTER 37 WAC 173-308-310 PERMITTING.

### 37.1 Overview of Changes

Numerous changes were made to this section. The changes made were primarily organizational, formatting, and for clarification purposes. However, five major additional changes were made to the original rule; these are further described below.

1. Imposed a requirement that all facilities that land-apply septage or treat septage for land application obtain a permit from the department. This was accomplished by defining a “septage management facility” in WAC 173-308-080, by redefining a “treatment works treating domestic sewage” to include SMFs, and by eliminating language in WAC 173-308-310(1)(a) of the original rule that stated that SMFs could be covered under a permit issued by a local health jurisdiction. This revision was necessary to ensure compliance with the rule by SMFs, for protection of human health and the environment from pollutants and/or pathogens in septage, and to impose a key recommendation of the 2003 *Septage Management Strategic Plan* (Ecology publication #03-07-018).
2. Imposed a requirement for applications for coverage under a new biosolids general permit for all existing facilities seeking coverage to be submitted within 90 days following the issuance of the permit but allowed for a case-by-case extension up to 180 days. This language is found in WAC 173-308-310(4)(a). This is already a requirement under the *General Permit for Biosolids Management* for some facilities. However, the due date for many facilities is tied to various factors, including the due date for other permits. The discrepancies have led to extensive confusion. For clarity and simplification purposes, the decision was made to hold all facilities to the same timeline, but the option for an extension was included in order to allow for facility-specific considerations. In addition, to simplify the process and reduce paperwork and the costs associated with it, Ecology will include an expanded checklist in a revised Application for Coverage form which will allow facilities to defer to previously submitted documents when applying for a permit so that they are not required to resubmit an attachment or other document that has previously been submitted if it has not changed since submittal.
3. Reduced the number of newspaper notices, when required, from two to one. This language is found in WAC 173-308-310(13)(a). The reason for this change was to reduce the costs of conducting public notice and for simplification purposes. The reduction in newspaper notices is not considered to significantly impact the potential for public input. The change also provides more consistency with the newspaper notices required under the agency’s general permit rule (Chapter 173-226 WAC) and the SEPA rule (Chapter 197-11 WAC).
4. Eliminated the need for new public notice when applying for coverage under a new general permit if notice was done previously, the facility is in compliance, the facility does not land apply nonexceptional quality biosolids, and the facility is not proposing any significant changes in biosolids management practices. This language is found in WAC 173-308-310(13)(b). The reason for this change is for clarification purposes, and it is not considered to significantly impact the potential for public input. Ecology already does extensive public notice for each general permit. This notice is conducted several times across the state and includes information on all facilities that have submitted a Notice of Intent to be covered under the general permit. Requiring additional notice from facilities that have previously conducted notice, that are in compliance, that are not proposing any significant changes, and that do not land apply nonexceptional quality biosolids seems unnecessary. This change is really an extension of Ecology’s interpretation of the original rule language.
5. Imposed a requirement for public notice each permit cycle for facilities that land-apply nonexceptional quality biosolids, but limited the extent of the notice. This language can be found in WAC 173-308-310(13)(c). Based upon an interpretation of the language in the original rule, Ecology did not previously require such notice if the facility previously conducted public notice, was in compliance, and was not proposing any significant changes. However, EPA objected to this interpretation. The Preamble to Part 503 does imply that EPA expects notice to occur each permit cycle for all land application sites. The draft revision limits the extent of the notice by requiring that it occur in the newspaper in the county(ies) where application may occur but not at land application sites if this was done previously. This limiting of where notice has to occur is not considered to significantly

impact public input. The revisions were necessary to be more consistent with the federal biosolids program policy and for simplification purposes.

### **37.2 Response to Comments**

Twelve comments were received on this section. Some minor revisions were made to the section in response to the comments.

**Comment 1.** Under (4)(a) the department is proposing on a case-by-case basis to allow an extension of 180 days to the application deadline. If the Department retains this change in language it should clarify as to whether this extension is from the original start date original due date or date of actual request for extension. Tenelco appreciates the flexibility indicated by the agency here but we think this may create more trouble than benefit. First lacking a defined set of criteria for implementing the policy the extension will apparently depend on the inclination of staff which is likely to be different across the state and even with regions. The agency will likely be creating differential pressures between facilities itself and local health jurisdictions where it allows an extension in some cases but not in others; the justification for any such extension will always be subject to individual opinion (or whim). The rule does not in fact require that any such extension be granted in advance of the 90 day deadline. Does the agency intend that extensions could be granted once the primary due date passes? At a minimum the agency should require applicable facilities to request such an extension stating the reasons for the request in advance of the date due. We ask the agency to also consider however the impact of not authorizing these extensions. If the agency does not then facilities who do not meet the deadline will be in violation. It will still be up to the agency to determine how to proceed and the agency then always has the discretion to not take enforcement action for a period of time thus effectively extending the deadline while maintaining some regulatory pressure for compliance (otherwise the actual compliance point may be 90 to 180 days later than the original missed deadline). Tenelco can see one benefit to the extension in that it may support the rollover of existing permit coverage by avoiding a circumstance where a facility fails to renew in a timely fashion and thus may lose the benefit of streamlining in the permit process for facilities renewing coverage.

**Comments 2-5 (the same comment was submitted by 4 commenters).** The NBMA believes that the addition to allow a 180-day extension to the application deadline on a case-by-case basis needs criteria to base this upon. We also suggest that Ecology accept more electronic submissions to save paper and file space. The public would also have easier access to online applications and reports.

**ECOLOGY RESPONSE TO COMMENTS 1-5.** The extension option was retained because Ecology believes it is important to be able to respond to facility-specific considerations. However, some details on the expectations for requests were provided. The revised language in WAC 173-308-310(4)(a) now reads:

(4) Timing of permit applications.

- (a) ***Existing facilities seeking coverage under a general permit.*** Existing facilities seeking coverage under a general permit must submit an application for coverage within 90 days after issuance of the applicable general permit by the department. However, on a case-by-case basis the department's regional biosolids coordinator may grant an extension up to a maximum of 180 days after issuance of the applicable general permit. Requests for an extension must be made in accordance with the following:
  - (i) Requests must be made in writing to the applicable regional biosolids coordinator.
  - (ii) Requests must be made within 90 days after issuance of the applicable general permit.

With respect to the suggestion in Comments 2-5 regarding electronic submissions, some changes were made to WAC 173-308-310(9) (please see the response to comments on that subsection).

**Comment 6. (9):** Tenelco asks—implores in fact—the agency to make application submittal easier. The current system kills too many trees—and largely for no purpose. Applicants must submit copies of applications to at least one Ecology regional office and the headquarters office and one local health jurisdiction. Sometimes 4 or 5 copies must be submitted. The original thought was that Ecology headquarters should maintain a copy on file. Tenelco believes the reality of program implementation has been that regional offices maintain the most up to date files and that the headquarters office file is often not included in correspondence and regional actions. Secondly while non-delegated health jurisdictions may opt out of receiving copies of applications they don't even when they are not terribly

interested. And it is doubtful that even those which are delegated invest much review time in all but the most interesting or substantial applications. In keeping with statute rule and policy of both the program and the agency at large it is time for the biosolids program to go electronic. There is no reason why submittals to headquarters and non-delegated health jurisdictions or even delegated health jurisdictions should not be made electronically. Taking it one step farther Ecology should maintain a central web site where all such applications are posted and any person who registers at the web site will be atomically notified when a new application is posted. It is in fact a fairly simple process to either scan a paper application into a PDF file or to convert electronic files of various formats into PDF and then compile them all in one document. There still remains justification for a paper submittal to the lead regional office but in this day and age more than that is wasteful and is not walking the agency talk.

**ECOLOGY RESPONSE TO COMMENT 6.** Ecology agrees with the recommendation on electronic submittals. In fact, the rule language has never prohibited electronic submittal, and in some individual cases electronic submittal has occurred. However, the rule language has not explicitly encouraged electronic submittals. New language has been added requiring a hardcopy to the responsible regional office and either electronic or hardcopy to other regional offices, Ecology's headquarters office, and local health jurisdictions. The additional language explicitly encourages electronic submittal where it's allowed. In addition, language will be added to the annual report forms encouraging electronic submittal. With respect to the suggestion that Ecology maintain copies of permit applications on the biosolids website, this has been in the planning stages for awhile as part of improving public access to documents. Due to staff limitations, however, this will be unlikely to occur in the near future.

**Comment 7.** (13)(b): The public notice exemption here should be stipulated only for facilities which describe the circumstances under which they do not expect to land apply biosolids within the five-year permit life. It should also further assert that facilities which have a change in plans during the life of the permit must carry out public notice.

**ECOLOGY RESPONSE TO COMMENT 7.** No changes were made in response to the comment. The rule already requires that notice occur when a facility seeks to make significant changes during the course of a permit. This language is contained in WAC 173-308-310(13)(a). If a facility previously stated that they will not land-apply nonexceptional quality biosolids but then proposes to do so, that facility would be subject to the public notice requirements, as this would be considered to be a significant change.

**Comment 8.** (13)(c): The TPCHD recommends the department clarify whether or not re-posting of the sites is necessary when applying for renewal of coverage under a general permit with application of nonexceptional quality biosolids. If so, add (a)(iv) to the last sentence of the paragraph for clarity purposes.

**ECOLOGY RESPONSE TO COMMENT 8.** Posting of a site after it was initially done is not required when renewing coverage under a general permit. Thus, WAC 173-308-310(13)(a)(iv) was intentionally not included. The renewal notice would need to occur in the newspaper but not the site.

**Comment 9.** (13)(g): Tenelco supports the agency's choice of scripting recommended language and departing from prescriptive language. This supports a notice which can be tailored to the specific situation.

**ECOLOGY RESPONSE TO COMMENT 9.** Thank you for the comment.

**Comment 10.** (13)(g)(iii): This subsection assumes that a local health jurisdiction is involved; it should stipulate if a local health department is delegated.

**ECOLOGY RESPONSE TO COMMENT 10.** In response to the suggestion, the following language was added to the end of WAC 173-308-310(13)(g)(iii), "if the local health jurisdiction has been delegated this responsibility."

**Comment 11.** (18)(a)(ii) should be revised to clarify that a BUF may use provisional approval for a new land application site developed in accordance with an approved general land application plan.

**ECOLOGY RESPONSE TO COMMENT 11.** No changes were made in response to the comment. WAC 173-308-310(18)(ii) uses the phrase, "New beneficial use facilities". Thus, it does not apply to existing BUFs.

**Comment 12.** (23): Tenelco notes here that the agency is striking language which was in place to recognize an important distinction in the permit process. Where a general permit is concerned the agency issues the permit. Facilities may then be covered based on a previous Notice of Intent an application for coverage process or by agency mandate but they are obtaining coverage under an existing permit mechanism. They are not actually being issued a



permit as in an individual facility permit. As we read and interpret the agency may revoke and reissue or modify or even terminate an actual general permit or it may take actions which affect the conditions of coverage for a specific facility applicable under the general permit. In the latter case however the agency is not affecting the permit itself only conditions for coverage at an individual facility. Tenelco is uncertain if this concern is only a matter of semantics and will rely on the agency judgment.

**ECOLOGY RESPONSE TO COMMENT 12.** The intention was to use “permit” throughout in this section to refer to either an individual permit or coverage under a general permit. WAC 173-308-310(2)(b) was written to attempt to make this intention clear. Appendix 5 (WAC 173-308-90005) defines how Ecology will issue, modify, revoke and reissue, and terminate general permits. Upon consideration of the comment, however, Ecology realized that some uses of the term “permit” in various sections in the rule includes general permits issued by Ecology as well as individual permits and coverage under general permits. Thus, a minor revision was made to the definition of “permit” in WAC 173-308-080 to clarify this issue. The revised definition in WAC 173-308-080 now reads:

**“Permit”** means an authorization, license, or equivalent control document issued by the director to implement the requirements of this chapter. Unless the context requires differently, the use of the term in this chapter refers to individual permits, general permits, and coverage under general permits.

## CHAPTER 38 WAC 173-308-320 PERMIT FEES.

### 38.1 Overview of Changes

This section was changed substantially from the original in order to attempt to create a schedule that collects sufficient fees to support the existing Ecology program and to create a more equitable fee schedule. Fees collected from facilities subject to the state biosolids program are supposed to cover all of Ecology's program implementation costs. However, since the inception of the program in 1998, fees recovered have been well below that needed to support Ecology staff working on implementation. The current estimate is that fees collected cover the costs of approximately 4.2 FTEs, but Ecology is committing approximately 6.1 FTEs toward implementation of the program. Fees collected come predominantly from the larger wastewater treatment facilities, but frequently smaller facilities (who often pay no fee at all) require far more extensive staff time. Currently 40 percent of facilities do not pay a fee at all, and the top 20 fee payers paid approximately 75 percent of the fees received. The most important changes in the rule are the following:

- Imposed a \$600 minimum fee for the first residential equivalent (RE) for all facilities.
- Imposed a \$1,800 nonrefundable review fee for the first RE for new facilities.
- Additional charge per subsequent REs, except for incinerators which are capped at the minimum fee.
- Increased the maximum fee for permitted beneficial use facilities and other receiving-only facilities from \$2,500 per year to \$3,000 per year.
- Minimum fees and charges per RE increase by the fiscal growth factor.
- Reduced the charge per RE for REs above 100,000.

### 38.2 Response to Comments

Eight comments were received on this section. Some revisions were made in response to the comments and two additional revisions were made by Ecology to this section as well; these are briefly explained at the end of this chapter.

**Comment 1.** In (2) the rule states that fees are assessed prospectively. In (3) the agency is adding new language to specify that some facilities are assessed based on calendar years and others on fiscal years. This language will help the agency resolve a billing dilemma Tenelco is familiar with but in that regard the intent was to bill certain facilities based on the service level for a preceding calendar year. Therefore such billings can no longer be considered prospective.

**ECOLOGY RESPONSE TO COMMENT 1.** The commenter is correct, and "prospectively" was deleted.

**Comment 2.** (4)(h): Tenelco fully supports the agency determination to assess a new facility permit review fee. In fact we think the fee should be higher. We are uncertain here however whether this is essentially a down payment based on the assumption that the permit will be issued or is a forfeitable review fee. At what point can the agency declare a permit application rejected and the fee forfeit?

**Comment 3.** The agency should carefully clarify the relationship of the \$1800 permit review fee to the regular annual fee; whether they are completely separate fees or if the review fee counts against the regular annual permit fee.

**Comments 4-6 (the same or a similar comment was submitted by 3 commenters).** We suggest Ecology clarify that the permit review fee and annual permit fee are separate and additive.

**Comment 7.** We suggest Ecology clarify that the permit review fee and annual permit fee are separate and additive. We concur with Ecology's extensive revision to the fee structure.

**ECOLOGY RESPONSE TO COMMENTS 2-7.** In response to Comments 2-7, clarification changes were made to WAC 173-308-320(4)(h) indicating that the \$1,800 review fee is for the first RE and that additional charges will be incurred in accordance with the remainder of the section following issuance of a permit or approval. The \$1,800 is not considered to be a down payment. Rather, the charge is to provide some funding for staff review time.

**Comment 8.** (4)(h)(i): Tenelco fully supports the agency approach of charging a higher cost for the first RE. In the past many small facilities have paid small fees or no fees at all yet many of these same small facilities have generated very high workloads for the agency. This increase in cost for the first RE will help offset that impact (thought not entirely by any means).

**ECOLOGY RESPONSE TO COMMENT 8.** Thank you for the comment.

**ADDITIONAL REVISIONS.** Two additional revisions occurred to the proposed rule. The charge per RE above 100,000 in WAC 173-308-320(4)(i)(iv) was changed from \$0.051 to \$0.16, and a similar change was made in the applicable line in the table in WAC 173-308-320(5). These changes were necessary to correct an Ecology error in determining the charge. The two facilities affected by this subsection approved of the changes made.

## **CHAPTER 39 WAC 173-308-90001 APPENDIX 1**

### **MINIMUM CONTENT FOR A PERMIT APPLICATION**

#### **39.1 Overview of Changes**

This is a new appendix. The language in this appendix was previously found in WAC 173-308-310(5)(a) in the original rule. No changes were made to this language. By placing this language in an appendix, the permitting section (WAC 173-308-310) is shortened.

#### **39.2 Response to Comments**

No comments were received on this appendix.

## **CHAPTER 40 WAC 173-308-90002 APPENDIX 2**

### **MINIMUM CONTENT FOR A NOTICE OF INTENT TO BE COVERED UNDER A GENERAL PERMIT**

#### **40.1 Overview of Changes**

This is a new appendix. The language in this appendix was previously found in WAC 173-308-310(5)(b) in the original rule. Not all facilities are required to submit a GLAP, thus placing the requirements in an appendix is appropriate. In addition, by placing this language in an appendix, the permitting section (WAC 173-308-310) is shortened.

#### **40.2 Response to Comments**

No comments were received on this appendix.

## CHAPTER 41 WAC 173-308-90003 APPENDIX 3 MINIMUM CONTENT FOR A SITE SPECIFIC LAND APPLICATION PLAN

### 41.1 Overview of Changes

This is a new appendix. The language in this appendix was previously found in WAC 173-308-310(6)(d) in the original rule. Not all facilities are required to submit a SSLAP, thus placing the requirements in an appendix is appropriate. In addition, by placing this language in an appendix, the permitting section (WAC 173-308-310) is shortened. Also, Ecology added requirements for the SSLAP to include provisions for conducting any sampling of soils, surface waters, or ground water and copies of landowner agreements. The requirements for maps was also improved by adding a requirement for a legend and for information on areas in a site to which biosolids may be applied.

### 41.2 Response to Comments

Six comments were received on this section. One the comments was on subsection (8) of the required content, and the other five comments were on subsection (9).

**Comment 1.** (8): Tenelco is concerned with the proposed requirement for a plan regarding storage of biosolids which do not meet VAR by treatment (which would then rely on tillage after application to the land in order to meet VAR requirements). Tenelco is not aware of a means for quantifying a reduction in attraction to vectors that would ensue from implementation of any particular plan. The current rule relies on processes known to stabilize biosolids to achieve VAR. Since there is no method to quantify the benefit derived from a plan there is no way by which a site manager could demonstrate the adequacy of a proposed plan. Approval of this plan becomes an entirely discretionary matter on the part of the agency and the yardstick by which measurement would be accomplished is undefined. While we wish to have trust in the agency over the long (and short) term it is difficult and we think very risky for a small business to rely on a rule requirement that lacks an objective standard for measurement. Tenelco believes the agency should reconsider this requirement until it can more clearly quantify the expectations for the plan.

**ECOLOGY RESPONSE TO COMMENT 1.** While Ecology doesn't agree with rationale presented by the commenter suggesting that this requirement should be removed, Ecology has reconsidered the issue entirely and decided to remove the requirement for a plan at sites where the storage of biosolids not meeting a vector attraction reduction standard is proposed. The language requiring plans for "non-vector attraction reduction" biosolids was deleted in-part because Ecology already has the ability to affect storage of such material without the need for this additional plan. WAC 173-308-280(2) requires that such storage occur under a permit issued by the Ecology. WAC 173-308-310(19) allows Ecology to issue "additional or more stringent" requirements when it issues a permit or final coverage under a general permit. And all plans, including the Site Specific Land Application Plan discussed in this Appendix, require department approval. In addition, most permit writers require that facilities get approval for in-field storage sites prior to their initial use. Thus, Ecology believes it already possesses sufficient tools to address any concerns over storage of such biosolids.

**Comment 2.** (9): Tenelco understands the agency may have a "preference" for map scale (we do not seem to have maps that are scaled at 8" to the mile); any values inserted here are likely to become standards "preferences" not withstanding. The best scale for conveying information depends on the site in question and what is being conveyed. Sometimes information may be presented on more than one map. Tenelco has fairly inexpensive software that will let us render a map image to just about any scale but this may not be easy for all applicants. We believe the agency should at least substitute "approximately" for preferably.

**Comments 3-6 (the same or a similar comment was submitted by 4 commenters).** (9): We suggest standard USGS map scales be used (i.e. 1:24 000) rather than inches to the mile.

**ECOLOGY RESPONSE TO COMMENTS 2-6.** The text was revised somewhat to use standard USGS scales—with inches to the mile placed in parentheses—and to clarify that the scales cited are examples, not standards.

## **CHAPTER 42 WAC 173-308-90004 APPENDIX 4 MINIMUM CONTENT FOR A GENERAL LAND APPLICATION PLAN**

### **42.1 Overview of Changes**

This is a new appendix. The language in this appendix was previously found in WAC 173-308-310(6)(e) in the original rule. Not all facilities are required to submit a GLAP, thus, placing the requirements in an appendix is appropriate. In addition, by placing this language in an appendix, the permitting section (WAC 173-308-310) is shortened.

### **42.2 Response to Comments**

No comments were received on this appendix.

## **CHAPTER 43 WAC 173-308-90005 APPENDIX 5 - PROCEDURES FOR ISSUING GENERAL PERMITS**

### **43.1 Overview of Changes**

This is a new appendix that was developed to address the procedures Ecology will use to issue, revise and reissue, and terminate biosolids general permits. The language is adapted from Chapter 173-226 WAC, Waste Discharge General Permit Program. Ecology currently uses the procedures in Chapter 173-226 WAC to issue general permits. However, Chapter 173-226 WAC was written for wastewater discharge general permits, and does not properly address biosolids in many instances.

### **43.2 Response to Comments**

No comments were received on this appendix.



## CHAPTER 44 APPENDIX A COMPILATION OF COMMENTS RECEIVED ON THE PROPOSED RULE

**COMMENTER 1: Don Keeney, Public Works Manager, Town of LaCrosse, P. O. Box 228, LaCrosse WA 99143; lacrosse2@pionnet.com**

*SECTION: 173-308-295*

The Annual Biosolids Report could be greatly simplified for small WTFs by first asking if we have removed any biosolids from our plant. If the answer is no that should be the last question on the form.

**COMMENTER 2: Kyle Dorsey, Environmental Services Manager, Tenelco Inc., 621 SR 9 NE PMB A-28, Lake Stevens WA 98258; tenelcoinc@earthlink.net**

*SECTION: 173-308-005*

We note that the word municipal has been dropped generally so that references are no longer to municipal sewage sludge but just to sewage sludge. This is consistent with federal rules. 005(1) however talks about facilities that treat "domestic" waste and we believe this is an inappropriate characterization. Biosolids or sewage sludge is generated at facilities which treat domestic sewage or a combination of domestic sewage and industrial/commercial wastewater. We think clarification here is important so as not to create a stepping stone for future misunderstandings or arguments. We want to be clear: Our issue is only with a proper characterization. Given the success and continued implementation of pretreatment programs and alternative safer technologies we are not overly concerned with the non-domestic component of the influent stream. We also wonder about the use of the term "waste" as opposed to sewage or wastewater.

*SECTION: 173-308-060*

Tenelco recommends that the agency add a new subsection between (3) and (4). The effect of declaring that biosolids are a valuable commodity (per statute) is positive. The rule goes on to say however that biosolids or septage which do not meet standards is considered a solid waste and that sewage sludge disposed in a landfill is subject to solid waste regulations. The agency may wish to further clarify policy by stating that "Per statute the preference of the State of Washington is for beneficial use of biosolids. Sewage sludge or septage which does not meet standards for biosolids must be transported to a treatment facility unless the requirements for landfill disposal in Section 300 of this rule and conditions of any applicable permit are met."

*SECTION: 173-308-080*

Agronomic rate. Tenelco recommends that the agency just refer to "targeted vegetation" instead of targeted vegetation type. "Type" is a potentially ambiguous term subject to interpretation and reinterpretation and could be very specific or refer to a broader class of plants.

Beneficial Use facility. Tenelco recommends that the agency specifically clarify that a septage management facility (and land application sites in general) is not a BUF unless it is permitted as such.

Individual Permit. The definition of an individual permit does not capture the possibility of a treatment works that prepares material but does not directly land apply such as a compost facility.

Significantly remove manufactured inerts. This revised definition says it means to significantly remove manufactured inerts from biosolids or sewage sludge by means such as physical screening or another method to a level that in the opinion of the department will not result in an aesthetic nuisance or physical hazard.

Although an apparent step in the right direction Tenelco is disappointed (we think) with the revision to this definition. The language is vague and on examination leaves us wondering. The definition refers to the use of means "such as physical screening" to significantly remove manufactured inerts but allows for "another" method to accomplish that end. We do wonder then what other method the agency has in mind since it has removed the option of grinding (a decision we fully support). And we point out that grinding does not remove anything—it

simply makes larger pieces of nasty ugly disgusting trash into littler pieces of nasty ugly disgusting trash. The program has had many years to mature—was put in place nationally long before adoption of current state program rules—and there is simply no further rationale which can justify not screening (to some extent) trash out of biosolids before they are put to beneficial use.

Treatment works treating domestic sewage. Tenelco is not certain but believes the agency should not eliminate the authority to designate vehicles that service septic systems as TWTDS or at least we do not understand the rationale for doing so. This stated authority would allow the agency for example to designate a pumper used for illegal disposal activity and then require permitting under state rules. This authority may be captured elsewhere or the agency may have alternative remedies available.

Tenelco is concerned that revisions to the definition of septage in 080 of the rule and provisions in 020 regarding restrictions on mixtures of domestic septage and commercial septage could have the unintended consequence of adversely affecting or even eliminating grease trap service by pumper companies and could also eliminate Tenelco's ability to accept these loads for treatment. Tenelco's track record demonstrates our ability to accept grease trap waste and properly manage it and this business element is critically important to us and we believe other companies. The agency will need to clarify that it does not intend to curtail established business (and would thereby eliminate worries about revenue impacts). Also the agency will need to look at a broad scale determination of "domestic in quality" for grease trap waste as a literal case-by-case determination approach would simply be unworkable for the agency and the industry.

***SECTION: 173-308-100***

We note that (2) is written in a different voice than (1) and (3). It is also not clear whether this requirement extends to all persons who transport biosolids or only to those who hold a permit. If the requirement extends to all—say contractors who provide only a transportation service—how will the agency enforce this requirement where the transporter is not otherwise covered under a permit?

***SECTION: 173-308-130***

(1)(a) requires an out of jurisdiction exporting facility to apply for a permit prior to exporting biosolids into the state if it wishes to establish its own management program within the state. Tenelco believes in this circumstance that an exporting jurisdiction should be obligated to do more than simply apply for a permit. There is no qualification here as to the quality of the application regarding completeness or accuracy; in fact an applicant whose submittal was deemed entirely lacking would still meet this test.

Tenelco supports (2) which makes it possible for an exporting jurisdiction to partner with a properly permitted facility in the state. In this case a permit is in place to provide accountability as opposed to (1)(a).

Tenelco recommends the labeling requirements for bagged products also be referenced in 130(3).

***SECTION: 173-308-150***

In 150(5) the Department has removed the option of reducing the frequency of monitoring for pathogens. Tenelco encourages the agency not to eliminate flexibility which remains a matter for the discretion of the agency. There is no benefit to this revision; only the loss of an option. The agency should consider that the regulation is addressing only monitoring frequency here not the number of samples the quality or the suitability of the outcome for any particular purpose; all monitoring programs should be evaluated in context. For example a facility with drying beds might be obligated to monitor more than once per year but a single monitoring event prior to removal would likely make more sense. Further the agency should consider that new pathogens or indicator organisms may be identified at some time and that a reduction in frequency of monitoring may be appropriate for some organisms and not for others. Cost impacts in this kind of scenario could be significant. We also note that Vector Attraction Reduction is identified in (1) but is not referenced in (5).

***SECTION: 173-308-193***

We find (2) (3) and (4) to be in apparent contradiction to each other and do not quite understand what we are reading although we think we understand the intent. It appears the agency intends that the owner/operator of a composting toilet (also known as a waterless toilet) need not worry about compliance with provisions of 308 if

they give their composted product to a facility which is permitted to handle it as septage. Tenelco concurs. It appears however that the agency intends that the person who does land apply the product must comply with the regulations regardless of their permit status. Consequently then a home owner or any other person might accept this material and apply it to the land without a permit if they follow the rules for land application of septage. We find this at odds with new provisions requiring permits in all cases for the land application of septage. Section 4 apparently intends to exempt a person from reporting on such a small scale activity but it might be read to imply that all such activities at a facility where composting toilet residuals are applied to the land are exempt which should not be the case. We also note that (4) exempts a person from permitting requirements unless a permit is required; this seems self evident. All-in-all we think we are with the agency in spirit but recommend a rewrite of the section to clarify intent. Specifically we recommend the agency include at least a parenthetical reference to "waterless toilets" and we recommend that the agency address the scenario where an owner/operator other person would land apply this material without permit coverage. If the agency intends to allow that then the rule should clearly say "Owners/operators may apply waterless toilet residuals to the land or obtain the services of second parties to do so on their behalf so long as the requirements of 270 are met.

***SECTION: 173-308-205***

Tenelco has already offered comments in the definitions section but finds the language of 205 somewhat more to our liking. It appears that the intent of this section is to require the removal of inerts by a certain date and in the interim allow the continued "reduction." Perhaps this implies then a temporary stop gap for facilities which are using grinders or less effective screening systems? We note however that there is no specified standard for what constitutes significant removal. The agency will need to provide either a design or performance based standard in order for facilities to specify the proper equipment to meet the imposed deadlines.

As a final note we believe the agency underestimates the amount of manufactured inerts in biosolids but especially in septage. In the latter case we do not believe the agency should issue any permit for any septage land application facility unless it includes a commitment to implement screening by the July 2009 deadline and preferably earlier.

***SECTION: 173-308-270***

(3)(a) applies criteria to loads that are composed of at least seventy-five percent by volume of septage that has been in a tank for at least two years or which conversely under (3)(b) are composed of greater than twenty-five percent by volume of septage that has not been in a tank for at least two years.

It appears that Ecology intended here to carry forward in a slightly different form the original concept in the rule which identified Class I septage as material having had a sufficiently long residency time to be considered largely stabilized while Class II septage came from holding tanks although no residency time was noted. Tenelco is uncertain as to the significance of the two-year threshold and finds the timeframe to be problematic. Pumpers will be in no position to really know the length of residency time of material in a tank. They may service systems where owners are not present and owners or persons on site may not know the history where properties have changed hands. Moreover if they could know on inspection the length of residency time the requirement would still be problematic. Say for example a 3 000 gallon pumper services two facilities where a total of 2 000 gallons of long-residency time material are pumped. Upon arriving at the third facility many miles distant at the end of the work day the driver learns that the material has only been in the tank for about a year. The pumper now faces a different set of regulations or alternatively must avoid servicing the tank and potentially lose the business or return on another day at greater expense. We note that Ecology has consolidated the definitions of the old Type I II and III septage and eliminated grease trap waste (the subject of another comment from Tenelco) in part in order to be more consistent with federal rules. Extending this same logic federal rules make no distinction regarding septage held for a short or long period of time. Instead the rules rely on the most stringent site management and access restrictions for septage management to protect public health and the environment. We believe this continues to be the best way to manage septage.

(5)(b) This new language grants Ecology discretionary authority to require a different but undefined method of calculating an application rate for septage based on characteristics of the material and the application site but continues to limit the upper end rate to what is allowed under Equation 3 (original federal calculation). It seems

inequitable to us that the agency wishes to assert the use of an undefined mechanism for calculating an agronomic rate on an entirely discretionary basis and which would lead to a lower application rate and yet at the same time does not propose to allow a higher application rate if one can be justified. Tenelco believes this option is already available to the agency via permitting if justified but from the language in the rule it is not clear to Tenelco whether the agency expects to impose this rate as a permit condition or outside the context of a permit on a case-by-case basis.

***SECTION: 173-308-290***

The paragraph leads in with a reference to “both” and yet goes on to describe three entities.

***SECTION: 173-308-310***

Under (4)(a) the department is proposing on a case-by-case basis to allow an extension of 180 days to the application deadline. If the Department retains this change in language it should clarify as to whether this extension is from the original start date original due date or date of actual request for extension.

Tenelco appreciates the flexibility indicated by the agency here but we think this may create more trouble than benefit. First lacking a defined set of criteria for implementing the policy the extension will apparently depend on the inclination of staff which is likely to be different across the state and even with regions. The agency will likely be creating differential pressures between facilities itself and local health jurisdictions where it allows an extension in some cases but not in others; the justification for any such extension will always be subject to individual opinion (or whim). The rule does not in fact require that any such extension be granted in advance of the 90 day deadline. Does the agency intend that extensions could be granted once the primary due date passes? At a minimum the agency should require applicable facilities to request such an extension stating the reasons for the request in advance of the date due.

We ask the agency to also consider however the impact of not authorizing these extensions. If the agency does not then facilities who do not meet the deadline will be in violation. It will still be up to the agency to determine how to proceed and the agency then always has the discretion to not take enforcement action for a period of time thus effectively extending the deadline while maintaining some regulatory pressure for compliance (otherwise the actual compliance point may be 90 to 180 days later than the original missed deadline).

Tenelco can see one benefit to the extension in that it may support the rollover of existing permit coverage by avoiding a circumstance where a facility fails to renew in a timely fashion and thus may lose the benefit of streamlining in the permit process for facilities renewing coverage.

(9) Tenelco asks—implores in fact—the agency to make application submittal easier. The current system kills too many trees—and largely for no purpose. Applicants must submit copies of applications to at least one Ecology regional office and the headquarters office and one local health jurisdiction. Sometimes 4 or 5 copies must be submitted. The original thought was that Ecology headquarters should maintain a copy on file. Tenelco believes the reality of program implementation has been that regional offices maintain the most up to date files and that the headquarters office file is often not included in correspondence and regional actions. Secondly while nondelegated health jurisdictions may opt out of receiving copies of applications they don’t even when they are not terribly interested. And it is doubtful that even those which are delegated invest much review time in all but the most interesting or substantial applications. In keeping with statute rule and policy of both the program and the agency at large it is time for the biosolids program to go electronic. There is no reason why submittals to headquarters and nondelegated health jurisdictions or even delegated health jurisdictions should not be made electronically. Taking it one step farther Ecology should maintain a central web site where all such applications are posted and any person who registers at the web site will be atomically notified when a new application is posted. It is in fact a fairly simple process to either scan a paper application into a PDF file or to convert electronic files of various formats into PDFs and then compile them all in one document. There still remains justification for a paper submittal to the lead regional office but in this day and age more than that is wasteful and is not walking the agency talk.

13(b) The public notice exemption here should be stipulated only for facilities which describe the circumstances under which they do not expect to land apply biosolids within the five-year permit life. It should also further assert that facilities which have a change in plans during the life of the permit must carry out public notice.

(13)(g)(iii) This subsection assumes that a local health jurisdiction is involved; it should stipulate if a local health department is delegated.

(13)(g)(6)(C) Tenelco supports the agency's choice of scripting recommended language and departing from prescriptive language. This supports a notice which can be tailored to the specific situation.

(18)(a)(ii) should be revised to clarify that a BUF may use provisional approval for a new land application site developed in accordance with an approved general land application plan.

(23) Tenelco notes here that the agency is striking language which was in place to recognize an important distinction in the permit process. Where a general permit is concerned the agency issues the permit. Facilities may then be covered based on a previous Notice of Intent an application for coverage process or by agency mandate but they are obtaining coverage under an existing permit mechanism. They are not actually being issued a permit as in an individual facility permit. As we read and interpret the agency may revoke and reissue or modify or even terminate an actual general permit or it may take actions which affect the conditions of coverage for a specific facility applicable under the general permit. In the latter case however the agency is not affecting the permit itself only conditions for coverage at an individual facility. Tenelco is uncertain if this concern is only a matter of semantics and will rely on the agency judgment.

### ***SECTION: 173-308-320***

In (2) the rule states that fees are assessed prospectively. In (3) the agency is adding new language to specify that some facilities are assessed based on calendar years and others on fiscal years. This language will help the agency resolve a billing dilemma Tenelco is familiar with but in that regard the intent was to bill certain facilities based on the service level for a preceding calendar year. Therefore such billings can no longer be considered prospective.

(4)(h) Tenelco fully supports the agency determination to assess a new facility permit review fee. In fact we think the fee should be higher. We are uncertain here however whether this is essentially a down payment based on the assumption that the permit will be issued or is a forfeitable review fee. At what point can the agency declare a permit application rejected and the fee forfeit?

(h)(i) Tenelco fully supports the agency approach of charging a higher cost for the first RE. In the past many small facilities have paid small fees or no fees at all yet many of these same small facilities have generated very high workloads for the agency. This increase in cost for the first RE will help offset that impact (though not entirely by any means).

(h)(v) The agency should carefully clarify the relationship of the \$1800 permit review fee to the regular annual fee; whether they are completely separate fees or if the review fee counts against the regular annual permit fee.

### ***SECTION: APPENDIX 3***

Tenelco understands the agency may have a "preference" for map scale (we do not seem to have maps that are scaled at 8" to the mile); any values inserted here are likely to become standards "preferences" notwithstanding. The best scale for conveying information depends on the site in question and what is being conveyed. Sometimes information may be presented on more than one map. Tenelco has fairly inexpensive software that will let us render a map image to just about any scale but this may not be easy for all applicants. We believe the agency should at least substitute "approximately" for preferably.

Tenelco is concerned with the proposed requirement for a plan regarding storage of biosolids which do not meet VAR by treatment (which would then rely on tillage after application to the land in order to meet VAR requirements). Tenelco is not aware of a means for quantifying a reduction in attraction to vectors that would ensue from implementation of any particular plan. The current rule relies on processes known to stabilize biosolids to achieve VAR. Since there is no method to quantify the benefit derived from a plan there is no way by which a site manager could demonstrate the adequacy of a proposed plan. Approval of this plan becomes an

entirely discretionary matter on the part of the agency and the yardstick by which measurement would be accomplished is undefined. While we wish to have trust in the agency over the long (and short) term it is difficult and we think very risky for a small business to rely on a rule requirement that lacks an objective standard for measurement. Tenelco believes the agency should reconsider this requirement until it can more clearly quantify the expectations for the plan.

**COMMENTER 3: Edward Wheeler, Principal, Wheeler Consulting Group, PO Box 29586, Bellingham WA 98228; edward@wheelerconsulting.net**

***SECTION: 173-308-080***

WAC 173-308-080 eliminates the current designations of Class I II and III septage. The new definition of domestic septage includes “other” sources such as portable toilet waste RV holding tanks etc. with material from domestic septage tanks. The character of these other sources is often significantly different than domestic septage. Handling and treatment of these sources should be different from that of domestic sources due to their composition. One suggestion might be to create a multi-tiered level of treatment depending upon the character and/or source of the material. This new rule could allow undesirable material to be land applied. In this case the old rule is more efficient in controlling septage quality.

WAC 173-308-080 contains a new definition that of “Nonexceptional quality biosolids”. It seems odd that in 1998 Ecology went to the trouble of writing a new biosolids rule that specifically changed the name (and public perception) of sewage sludge to biosolids only to label the majority of biosolids that are now handled in Washington State as “Nonexceptional”. To the layperson this term has a negative connotation. A more benign label would better serve the industry and the image of a valuable recyclable material.

***SECTION: 173-308-150***

relinquishes biosolids generator responsibility and transfers it to the land applier. Under normal circumstances biosolids generators transfer relatively small loads of material (limited to WDOT restrictions associated with truck travel weights) to land application sites where it is then often mixed with material from other sources. Without initial testing at the point of origin all the responsibility will be that of the land applier. It will be extremely difficult to establish responsibility if generators do not have to characterize the material that they produce. Some biosolids generators transfer biosolids to other facilities solely for pathogen and vector attraction reduction. Under this circumstance the land applier would have to segregate each generators material until sampled and analyzed for metals as well to comply with restrictions in WAC 173-308. This may mean new storage facilities for some generators to segregate material as well as more management for record keeping and possibly more frequent testing of material for quality control. This new rule will impose a significant economic impact to small land appliers that was not initially analyzed in the Small Business Economic Impact Statement for proposed amendments to Chapter 173-308 Biosolids Management. Generators should have to test for heavy metals at a minimum to establish if their material is acceptable for land application.

***SECTION: 173-308-205***

Most small-to-medium sized wastewater treatment facilities already produce inert free biosolids that have never been "treated by a process such as physical screening or other method to significantly remove manufactured inerts". This requirement will impose costly and unnecessary requirements upon land appliers who already meet the intent of the rule. When this verbiage was first introduced by the BRAGG group I ask Daniel Thompson about the screening requirement. He said that the rule would eventually say that "biosolids would need to be 95% garbage free" and that the intent of the rule is to eliminate garbage. Rather than impose a physical restriction to biosolids processing that is very interpretable (e.g. “significantly remove” has no quantitative value) wouldn't it be better to impose a restriction on the quality of the material that is to be applied? This new rule would impose a significant economic impact on some land appliers in the form of adequate screening and ancillary equipment that was not initially analyzed in the Small Business Economic Impact Statement for proposed amendments to Chapter 173-308 Biosolids Management.

**SECTION: 173-308-270**

(5) imposes unrealistic material tracking goals. Few septage haulers actually know or can ascertain how long septage has been in a septic tank with any degree of accuracy. This information is typically only know by the home owner and once home owners figure out that it is more expensive (because septage haulers will have to charge more for septage that requires additional treatment) it is doubtful that accurate information will be provided by home owners. In addition some septage haulers do not apply their own material. Instead they deliver the material to a permitted land application facility and transfer it to large tanks that are often mixed with material from other locations. The new rule would require land appliers to install additional tankage to segregate longer digested material from material that has been digested for less than two years. Does substantial evidence exist to show that the character of septage differs greatly after two years in a tank versus less than two years in a tank? This new rule would impose a significant economic impact to small land appliers in the form of additional tankage and additional management to identify and control two separate types of material. This impact was not accounted for in the Small Business Economic Impact Statement for proposed amendments to Chapter 173-308 Biosolids Management.

**COMMENTER 4: Ted Silvestri et al, Environmental Health Specialist, Yakima Health District, 104 North 1st Street Suite 204, Yakima WA 98901; ted.silvestri@co.yakima.wa.us**

**SECTION: 173-308-080**

“Beneficial use of biosolids”. This definition of beneficial use appears to be exceptionally narrow and ignores many studies where biosolids can be beneficially used in other ways such as immobilization of heavy metals land stabilization to reduce wind blown and water carried erosion use as a fuel for energy production etc. Which beneficial use is chosen by an entity should not be dictated by the regulatory authority. This regulation should be flexible enough to recognize and allow any proposed beneficial use so long as it does not harm human health and the environment.

**COMMENTER 5: David Eldredge, President, Evergreen Sanitation, PO Box 259, Lake Stevens WA 98258; daveeldredge@aol.com**

**SECTION: 173-308-080**

Evergreen Sanitation Inc. offers the following comments on the 173-308 biosolids rule proposed changes. Some of the proposed changes regarding the definition of septage were not discussed with the advisory group contrary to the Small Business Economic Impact Statement which reads in part "It should be noted that none of the proposed changes were strongly objected to by any of the small business representatives on the advisory group." Evergreen Sanitation Inc. and its solely owned subsidiaries has provided reliable service to facilities with grease traps for years without environmental incident or complaint. If proposed changes in the definition of septage which may eliminate an allowance for grease trap waste are adopted and Ecology does not allow grease trap waste to be included with septage based on some broad policy determination that grease trap waste can be managed as a material which is domestic in quality the economic impact to Evergreen Sanitation Inc a small business will be extreme. Therefore Evergreen seeks assurance from the agency that it will enact policies that will allow us to continue in business as our company has for fifty years now.

**COMMENTER 6: Raja Ranade, Sr. Environmental Engineer, Fluor Hanford, P.O. Box 1000, MSIN H8-12, Richland WA 99352; Digambar\_G\_Raja\_Ranade@rl.gov**

**SECTION: 173-308-005**

(1)(c) and (2) use the term ‘managed’ but the term is not defined. Suggestion: Define the term "Management of Biosolids." See comment on Section WAC 173-308-080.

**SECTION: 173-308-080**

Add following definitions:

“Accumulation of Biosolids” means generation of biosolids during the sewage treatment process. prior to removal.

“Management of Biosolids” means storage of biosolids( as defined in this section) or transportation or land application of biosolids or any other process approved by the Department.

Add to the definition of Store or Storage of biosolids or sewage sludge: This definition does not include accumulation of biosolids or sewage sludge generated during the treatment process.

***SECTION: 173-308-140***

Add following as a lead-in sentence: The following requirements are applicable only when you manage biosolids.

***SECTION: 173-308-150***

Add following as a lead-in sentence: The following requirements are applicable only when you manage biosolids.

***SECTION: 173-308-160***

Add following as a lead-in sentence: The following requirements are applicable only when you manage biosolids.

***SECTION: 173-308-170***

Add following as a lead-in sentence: The following requirements are applicable only when you manage biosolids.

***SECTION: 173-308-180***

Add following as a lead-in sentence: The following requirements are applicable only when you manage biosolids.

***SECTION: 173-308-205***

(2) states that all facilities must meet this requirement by July 1 2009 (exception noted) or submit a plan to the department by July 1 2008 that specifies how this standard will be met by July 1 2011. Hanford has a sewage lagoon which treats domestic sewage. There is no plan to remove biosolids for next several years. It will be difficult to meet this requirement in the give time frame.

Suggestion: Add following as a lead-in sentence: The following requirements are applicable only when you manage biosolids.

***SECTION: 173-308-295***

Add following at the top of the form: “Did you manage Biosolids during the calendar Year \_\_\_\_? If yes proceed if no sign and mail the form.” This comment will reduce burden on facilities that do not manage or have not managed biosolids during the reporting period.

**COMMENTER 7: Tim Killingbeck, President, Northwest Biosolids Management Association, 201 S. Jackson St., KSC-NR-0512 Seattle WA; 98104; DThomps@ci.tacoma.wa.us**

The Northwest Biosolids Management Association (NBMA) would like to make the following comments on the draft revisions to WAC 173-308. The NBMA appreciates the approach that Ecology has adopted for crafting revisions to the 308 rule. However, the implementation of this process has apparently suffered from schedule pressures. Bringing in a broad range of stakeholders early in the revision process had a positive impact on the creativity and quality of the proposed revisions. The diverse view points that were expressed in the BRRAG generated creative and elegant solutions to many of the issues presented in the rule revision process. These revisions, agreed to by Ecology representatives, were unilaterally changed by Ecology without any discussion or consultation with the BRRAG. We recognize that an additional meeting of the stakeholder group could have impacted the schedule however we are disappointed that Ecology made significant changes to the revisions without providing an opportunity for the stakeholders to discuss the rationale. We believe that crafting implementable science-based fiscally responsible revisions to the rule are more important than having the revisions completed by July 2007.

***SECTION: 173-308-005***

Sewage sludge is the semi-solid material that has settled out of wastewater from a treatment works treating domestic sewage. This definition is more consistent with the federal rule and with Ecology’s WAC 173-308-080 definition.



***SECTION: 173-308-060***

Agronomic Rate is the Biosolids application rate that provides the amount of nitrogen necessary for the optimum growth of targeted vegetation types: This small change is suggested to clarify that the agronomic rate is calculated based on nitrogen uptake rate of the targeted crop but also includes the nitrogen uptake of associated species. This is a particularly important component of the agronomic rate calculation in forest ecosystems.

“Significantly remove manufactured inerts”: The NBMA is fully committed to creating quality Biosolids products and protecting the environment. However we believe a manufactured inerts reduction standard does not directly address the problem of inordinate amounts of trash in Biosolids. We suggest a direct standard to be established in the general permit of X% manufactured inerts per unit of application area. Since there is currently no consensus on what an acceptable level of manufactured inerts would be we strongly suggest that the standard be addressed in the permit where it can more easily be amended in the future as we gain more experience and monitoring data.

***SECTION: 173-308-130***

(a) The exporting facility must obtain coverage under a permit in accordance with WAC 173-308-310 prior to exporting Biosolids or sewage sludge into the state. The NBMA believes explicit language regulating the importation of Biosolids from external (out of jurisdiction) sources is a significant improvement to the rule. This addition to the rule allows users of biosolids (farmers ranchers) access to additional sources of this valuable material and still provides adequate assurance that out of jurisdiction material is of high quality and that fees are collected from producers to pay for the additional cost of regulating this material. We believe that out of jurisdiction generators should be required to obtain coverage under the permit prior to exporting material rather than just apply for the permit. Requiring only an application leaves open the possibility that a generator could submit an inadequate application and still export material to the state without ever actually gaining coverage under and complying with a permit.

***SECTION: 173-308-150***

(5): After the Biosolids have been monitored for 2 years at the frequency in this section the person who prepares the Biosolids may request the department to reduce the frequency of monitoring for pollutant concentrations pathogen reduction or vector attraction reduction. There is no reason to eliminate the flexibility to request sampling frequency reductions for pathogens and vector attraction reduction. There are conceivable circumstances such as lagoons and drying beds where intense infrequent sampling makes more sense than sampling more frequently. This does not preclude Ecology from denying a request to reduce monitoring frequency.

***SECTION: 173-308-170***

We repeat comments made during Ecology’s presentation to the NBMA Board of Directors in January. Absent research or evidence that there is a problem with Alternative 3 & 4 we see no reason to eliminate them as options. This constitutes a significant departure from the federal rule with absolutely no scientific data to base this change. We remind Ecology that all pathogen reduction alternatives are based on the same tests. PFRP processes were proved to be PFRP using the same tests. EPA has repeatedly said that the federal rule is protective of public health and the environment and that there are no documented cases of health problem resulting from Biosolids prepared and distributed or applied in accordance with federal rules. NBMA believes that requiring sampling plans approved by Ecology for determination of Class A quality under alternative 3 and 4 can provide the assurance that a Class A pathogen reduction status is indeed attained.. We believe that Ecology needs to provide some guidance to regional coordinators and to the regulated community on how to put together an acceptable plan. We offer our services in creating a work group that includes Ecology sampling and statistical analysis experts and members of the regulated community for the purpose of creating a guidance document for creating sampling plans for the purpose of determining Class A quality under alternatives 3 and 4.

***SECTION: 173-308-192***

The NBMA supports the exemptions for research in this section of the rule. We would suggest that Ecology remove the 10 acre restriction in size and rely on Ecology’s own judgment as to whether the size of the research

project is appropriate to support the goals of the research and demonstration. WAC 173-308-192 (2) (c) requires an explanation for the sizing of the research plots and restricts the size to no greater than necessary to accomplish the objectives of the research. This section provides adequate protection from nefarious over sized research projects.

***SECTION: 173-308-193***

We see the exemptions granted for composting toilets as a defacto endorsement of a product of questionable quality. The NBMA suggests that Ecology either redefine this material as something other than domestic septage or provide some sort of caution as to the use of this material.

***SECTION: 173-308-205***

(1): Biosolids (including septage) or sewage sludge must contain less than X manufactured inerts per unit of application area. Meeting this requirement may occur at any point in the treatment process. Since the objective of this section is to limit the amount of trash that is being land applied we believe a limit on the actual amount of “manufactured inerts” in Biosolids is likely to be more successful less subjective and easier to measure than measuring (or evaluating) the efficacy of a treatment plant in reducing manufactured inerts across its processes. In effect we do not care how much trash is coming into the plant as long as the Biosolids being land applied or distributed is relatively free of trash.

2): The installation of screening may require more than 2 years to implement. We suggest this language for (2) “Facilities must meet this requirement by July 2009 or amend their facility plan to include screening (or other method for meeting this requirement) within the next NPDES permit cycle

***SECTION: 173-308-270***

The NBMA recognizes that septage is and will continue to be a difficult management problem. We continue to encourage Ecology review and implement the findings of the Septage Management Action Committee (SMAC). In particular the NBMA favors a policy that encourages the development of centralized septage facilities.

The NBMA believes that determining if and when class III septage is “largely stabilized will be difficult making enforcement of this section difficult. We believe it would be prudent to reiterate the requirement for screening (or removal of manufactured or inert wastes) in this section in order to make this requirement more visible to those only interested in septage.

(4) (k) (iii): The NBMA believes that the sign should specifically call out that the material being applied is septage. Ecology differentiates between Biosolids and septage in its rule. We believe that differences between the materials and between the management practices are different enough to warrant explicit wording in public notice postings.

***SECTION: 173-308-290***

(d) The targeted vegetation grown on each site and its nitrogen requirement. We recommend that ‘annual’ be removed from item (d) to better reflect operations on sites with non-annual application intervals e.g. forests may be applied every 3-4 years dry land wheat with 2 year (or more) fallow rotation rangeland given a 5-year application rate.

***SECTION: 173-308-310***

The NBMA believes that the addition to allow a 180-day extension to the application deadline on a case-by-case basis needs criteria to base this upon. We also suggest that Ecology accept more electronic submissions to save paper and file space. The public would also have easier access to online applications and reports.

***SECTION: 173-308-320***

We suggest Ecology clarify that the permit review fee and annual permit fee are separate and additive.

***APPENDIX 3***

We suggest standard USGS map scales be used (i.e. 1:24 000) rather than inches to the mile.

**COMMENTER 8: Daniel Thompson, Division Manager, City of Tacoma, 2201 Portland Avenue, Tacoma WA 98421; dthompso@cityoftacoma.org**

***GENERAL COMMENTS***

Tacoma appreciates the approach that Ecology has adopted for crafting revisions to the 308 rule. However the implementation of this process has apparently suffered from schedule pressures. Bringing in a broad range of stakeholders early in the revision process had a positive impact on the creativity and quality of the proposed revisions. The diverse view points that were expressed in the BRRAG generated creative and elegant solutions to many of the issues presented in the rule revision process. These revisions agreed to by Ecology representatives were unilaterally changed by Ecology without any discussion or consultation with the BRRAG. We recognize that an additional meeting of the stakeholder group could have impacted the schedule however it seems disingenuous to us to make significant changes in revisions to the rule that had been specifically discussed and agreed to without at least meeting with the stakeholders to discuss the rationale. We believe that crafting implementable science-based fiscally responsible revisions to the rule are more important than having the revisions completed by July 2007.

***SECTION: 173-308-005***

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“Significantly remove manufactured inerts”: The City of Tacoma is fully committed to creating quality Biosolids products and protecting the environment. However we believe a manufactured inerts reduction standard does not directly address the problem of inordinate amounts of trash in Biosolids. We suggest a direct standard to be established in the general permit of X% manufactured inerts per unit of application area. Since there is currently no consensus on what an acceptable level of manufactured inerts would be we strongly suggest that the standard be addressed in the permit where it can more easily be amended in the future as we gain more experience and monitoring data.

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WAC 173-308-205 (2): The installation of screening may require more than 2 years to implement. We suggest this language for (2) "Facilities must meet this requirement by July 2009 or amend their facility plan to include screening (or other method for meeting this requirement) within the next NPDES permit cycle

***SECTION: 173-308-270***

The City of Tacoma recognizes that septage is and will continue to be a difficult management problem. We continue to encourage Ecology to review and implement the findings of the Septage Management Action Committee (SMAC). In particular We favor a policy that encourages the development of centralized septage facilities.

Tacoma believes that determining if and when class III septage is "largely stabilized" will be difficult making enforcement of this section difficult. We believe it would be prudent to reiterate the requirement for screening (or removal of manufactured or inert wastes) in this section in order to make this requirement more visible to those only interested in septage.

WAC 173-308-270 (4) (k) (iii): Tacoma believes that the sign should specifically call out that the material being applied is septage. Ecology differentiates between Biosolids and septage in its rule. We believe that differences between the materials and between the management practices are different enough to warrant explicit wording in public notice postings.

***SECTION: 173-308-290***

Recordkeeping. The targeted vegetation grown on each site and its nitrogen requirement. Recommend that 'annual' be removed from nitrogen requirement to better reflect operations on sites with non-annual application intervals e.g. forests may be applied every 3-4 years dry land wheat with 2 year (or more) fallow rotation rangeland given a 5-year application rate.

***SECTION: 173-308-310***

Tacoma believes that the addition to allow a 180-day extension to the application deadline on a case-by-case basis needs criteria to base this upon. We also suggest that Ecology accept more electronic submissions to save paper and file space. The public would also have easier access to online applications and reports.

***SECTION: 173-308-320***

We suggest Ecology clarify that the permit review fee and annual permit fee are separate and additive.

**COMMENTER 9: JR Inman, General Manager, NW Cascade, Inc., PO Box 73399, Puyallup WA 98373; jr@nwcascade.com**

***SECTION: 173-308-080***

Domestic Sewage It appears that the definition is being changed to "waste from humans or household operations". This is a wide spectrum interpretations that could be considered from any facility based on waister stream originating from humans. As a company that test for BOD TSS FOG or HEM CBOD PH DO Temperature. Many Restaurants Apartments Shopping Centers school and others can be tested and proven to have similar or lower "test results" than that of a home. I would be happy if this is the interpretation but for those of us that are testing this is very confusing with out the break down definitions. Waste contents based on sampling or know use is better than general words with out interpretations. The state Health department and most counties in the Puget Sound can not agree on what residential strength waister is be use or waister strength. The only definitions is by Volume per day. Please reconsider this definition. "Septage" or "Domestic Septage" has some break down definitions but are inconsistent with waister stream. as I will show in the next section most of this does not meet the 2 year or longer for septage.

***SECTION: 173-308-270***

(3)(a) "For loads of septage that are composed of at least seventy-five percent by volume of septage that has been in a tank for at least two year". This statement suggests that the septage may be mixed with something. No septage is in a tank for "at least two years" because the septage is always being added. Septic are always in use. You have raw material along with digested material in every load. Portable toilet vault toilets marine sanitation devices RV holding tanks. Most all are designed for short term use and then service or pump daily weekly or monthly. By this definitions nothing would pass for any land application for septage.. My concern is that we manage to have the definitions allow for the applications of septage with out violating the rules right up front.

**COMMENTER 10: Roger Hickey, President, BioRecycling**

Dan, well done, I think the changes made to the rule, in particular regarding septage management are a great improvement. I do have additional comments/questions and have attached some portable toilet data, most of the samples measure BOD and COD but a couple of samples also include TKN and BOD. When you convert the TKN to dry weight the nitrogen levels are many times higher than EPA's domestic septage assumptions, the BOD data from the other samples are similar so I would presume the nitrogen levels are similar.

**SECTION: 173-308-020**

*Comments/Question*

In the applicability section, 020 11 seems to conflict with 020 3g because 3g requires a case by case approval whereas 11 does not, is 3g suppose to apply only to SMFs because as I read the definition of “treatment works” or “treatment works treating domestic sewage”, either can accept commercial or industrial wastewater or sludge?

How will the nature of septage from a source that may have received other than “domestic sewage”, and is thus subject to 3g, be verified? This question came up when the 308s were first developed without resolution to my knowledge,

In the definition of “Treatment works treating domestic sewage” third line what is “reclamation of municipal”, if it refers municipal sewage, it is an undefined term.

**COMMENTS 11: Bill Angel, R.S., Environmental Health Specialist, Whatcom County Health Department**

Whatcom County Health Department (WCHD) reviewed the Proposed Revision of Chapter 173-308 WAC – Biosolids Management and provides the following comments for your consideration.

**Section –005:** The new section does not address or explain anything about “biosolids applied to a lawn or home garden”.

**Section –020:** This section does not indicate that the code applies to septage. This is important because the definition of sewage sludge does not include the term septage.

**Section –080** includes two definitions for septage, but no stated option exists in the code revision for management of septage that is not managed as biosolids originating from sewage sludge.

**Section –130:** When titled *Additional or more stringent standards*, the section provided the permit authority to apply new facility permit conditions based on newly acquired site specific and/or regional information. This is an important authority that should be preserved. The following statement has been incorporated into the permit conditions for biosolids beneficial use facilities and septage management facilities in Whatcom County, and the intent should be preserved: Ecology will require additional groundwater, drinking water, surface water, biosolids, or soil sampling at any time if Ecology believes that the additional sampling are necessary to protect public health and the environment from any adverse effect of a pollutant in the biosolids.

**Section –130:** The newly drafted section titled *Requirements for treatment works located outside of the jurisdiction of the department*, should include the term septage, since septage does not appear in the definition of sewage sludge, and should be entitled *Requirements for sewage sludge or septage generators located outside of the jurisdiction of the department importing sewage sludge or septage into the jurisdiction of the department*.

A section similar to the new –130 should be included and entitled *Requirements for sewage sludge or septage generators located inside of the jurisdiction of the department exporting sewage sludge or septage into the jurisdiction of the department*. This section should be worded to require that sewage sludge or septage generated in the jurisdiction of the department must be managed to at least the standards of Chapter 173-308 WAC Biosolids Management.

**Section –270:** Is all septage applied to the land in the jurisdiction of the department required to be managed as biosolids originating from sewage sludge and meet the requirements of section –270 *Septage applied to the land*? Or, can a septage applier instead decide to manage septage in accordance with the requirements of the federal exemption for septage land application?

**Section –290:** Remove the words “Both the” from the first sentence of the section.

We appreciate your efforts to resolve the septage management issues.

**COMMENTER 12: David Bosch, Environmental Health Specialist, Tacoma-Pierce County Health Department**

***173-308-005 - EXPLANATION FOR "SEWAGE SLUDGE" "BIOSOLIDS" "SEPTAGE"***

General Comment - The TPCHD supports the modifications and revisions to the Biosolids Management Rule proposed. The proposed changes significantly improve the Rule and will allow the department to provide a consistent foundation for regulatory oversight to continue to protect public health and the environment while beneficially reusing a valuable resource.

***173-308-080 - DEFINITIONS***

"Septage" or "domestic septage" - the proposed definition now excludes restaurant grease trap waste. Does this mean that grease trap waste can no longer be commingled with septage and managed (i.e., land applied) per Chapter 173-308 WAC? Is restaurant grease trap waste now to be regulated as a solid waste per Chapter 173-350 WAC? If this is so, the septage pumpers will now need to segregate grease trap waste and dispose of the material in an alternative manner. Are there alternative methods to dispose of grease trap waste other than disposing at a rendering facility or dewatering prior to landfilling?

***173-308-210 - BULK BIOSOLIDS APP. TO AG/FOREST LAND & PUBLIC/RECLAMATION SITE***

Under subsection (5)(a)(x), the rule states that signs must be posted at all significant points of access and at least every ½ miles around the perimeter of the application site. For clarity, the TPCHD recommends that language be inserted in this subsection that allows for the department to require more stringent spacing of posting at a given application site, if deemed necessary.

***173-308-310 - PERMITTING***

Subsection (13)(c) - The TPCHD recommends the department clarify whether or not re-posting of the sites is necessary when applying for renewal of coverage under a general permit with application of nonexceptional quality biosolids. If so, add (a)(iv) to the last sentence of the paragraph for clarity purposes.

**COMMENTER 13: Dan Curry, Deputy Public Works Director, Department of Public Works, City of Wenatchee**

The City of Wenatchee has the following comments regarding proposed changes to WAC 173-308:

***WAC 173-308-170 – Pathogen Reduction***

*Comment #1:*

In lieu of eliminating Class A-Alternative 4 as proposed by the Department of Ecology, the City of Wenatchee strongly recommends revising this alternative to address the human health concerns and allow the City to continue its highly successful and efficient biosolids operation.

The City currently utilizes the arid Eastern Washington climate and UV light to treat the biosolids using drying beds. This process produces exceptional quality biosolids that are readily used for beneficial purposes, and it is very inexpensive to operate and maintain. Any other method for reaching the pathogen reduction requirements for Class A biosolids would require a significant increase in operating costs and could include additional capital expenditures for new equipment.

Moreover, we believe that this drying bed method will only become more viable as power costs increase, air quality regulations become more stringent and global warming progresses. The drying bed method is also perfectly suited for many communities in Eastern Washington based on the climate, the availability of land and the low cost of operation. Because of this great potential, a specific alternative in WAC 173-308-170 is imperative to preserving and encouraging the future use of this outstanding, environmentally-conscientious process.

*Comment #2:*

Whether the City must seek a new alternative or make changes to its existing operation to address the human health concerns, immediate compliance with any amendments to Alternative 4 is not feasible physically or

economically. The City respectfully requests that the Department of Ecology consider requiring operations to be in compliance with the amendments to this section no later than the end of the current permit cycle (June 2010). We base this request on several facts. First of all, the City has invested over a \$1 million designing and building facilities to utilize Alternative 4. In addition the City has improved the methods employed at the drying beds and monitored the conditioning process easily meeting the Class A standards for over 14 years. Furthermore, the final application sites are located on agricultural lands where there is virtually no human contact with the biosolids. Therefore the continued use and/or extension of the deadline for the use of Alternative 4 does not create a risk to human or environmental health.

**WAC 173-308-170 – Pathogen Reduction & WAC 172-308-192 – Research Exemption**

*Comment #3.*

The agency is proposing a change to the regulation that would encourage research of biosolids. We support and commend the agency in this effort and strongly encourage the agency to specifically target research projects that are designed to evaluate the development and design of drying beds and other “low tech” technologies for conditioning biosolids. Any other method of biosolids conditioning requires energy which means it must rely on power generated via water through a turbine or burning of coal, oil or gas powered generators to drive the process. Drying beds on the other hand are an efficient and economical use of solar and wind energy.

The elimination of low tech methods such as Alternative 3 & 4 to stabilize and condition biosolids into a safe and effective soil amendment is frustrating and discouraging on many levels. We believe this is the wrong path for the agency to embark upon considering the projections of scientists regarding global climate changes, energy demands and the need to develop safe and efficient methods of waste reduction and reuse. Eliminating these alternatives will only increase the cost and put greater demand on diminishing power resources with no discernable protection of public health. On the other hand research and development of low tech, cost effective methods would be a more forward thinking approach for the agency to take.

**COMMENTER 14: Jim Fleming, WWTP Supervisor, Lakehaven Utility District**

Lakehaven Utility District (LUD) would like to make the following comments on the draft revisions to WAC 173-308. LUD appreciates the approach that Ecology has adopted for crafting revisions to the 308 rule. However, the implementation of this process has apparently suffered from schedule pressures. Bringing in a broad range of stakeholders early in the revision process had a positive impact on the creativity and quality of the proposed revisions. The diverse view points that were expressed in the BRRAG generated creative and elegant solutions to many of the issues presented in the rule revision process. These revisions, agreed to by Ecology representatives, were unilaterally changed by Ecology without any discussion or consultation with the BRRAG. We recognize that an additional meeting of the stakeholder group could have impacted the schedule however we are disappointed that Ecology made significant changes to the revisions without providing an opportunity for the stakeholders to discuss the rationale. We believe that crafting implementable science-based fiscally responsible revisions to the rule are more important than having the revisions completed by July 2007.

*Specific Comments*

**WAC 173-308-005 (1)** Sewage sludge is the semi-solid material that has settled out

of wastewater from a treatment works treating domestic sewage. This definition is more consistent with the federal rule and with Ecology’s WAC 173-308-080 definition.

**WAC 173-308-060**

**Agronomic Rate** is the Biosolids application rate that provides the amount of nitrogen necessary for the optimum growth of targeted vegetation types: **This small change is suggested to clarify that the agronomic rate is calculated based on nitrogen uptake rate of the targeted crop but also includes the nitrogen uptake of associated species. This is a particularly important component of the agronomic rate calculation in forest ecosystems.**

**“Significantly remove manufactured inerts”:** LUD is fully committed to creating quality Biosolids products and protecting the environment. However we believe a manufactured inerts reduction standard does not directly



address the problem of inordinate amounts of trash in Biosolids. We suggest a direct standard to be established in the general permit, of X% manufactured inerts per unit of application area. Since there is currently no consensus on what an acceptable level of manufactured inerts would be, we strongly suggest that the standard be addressed in the permit where it can more easily be amended in the future as we gain more experience and monitoring data.

**WAC 173-308-130 (1) (a)**

The exporting facility must *obtain coverage under a permit* in accordance with WAC 173-308-310 prior to exporting Biosolids or sewage sludge into the state. **LUD believes explicit language regulating the importation of Biosolids from external (out of jurisdiction) sources is a significant improvement to the rule. This addition to the rule allows users of biosolids (farmers, ranchers) access to additional sources of this valuable material and still provides adequate assurance that out of jurisdiction material is of high quality and that fees are collected from producers to pay for the additional cost of regulating this material. We believe that out of jurisdiction generators should be required to obtain coverage under the permit prior to exporting material rather than just apply for the permit. Requiring only an application leaves open the possibility that a generator could submit an inadequate application and still export material to the state without ever actually gaining coverage under and complying with a permit.**

**WAC 173-308-150 (5):** After the Biosolids have been monitored for 2 years at the frequency in this section, the person who prepares the Biosolids may request the department to reduce the frequency of monitoring for pollutant concentrations, *pathogen reduction, or vector attraction reduction*. **There is no reason to eliminate the flexibility to request sampling frequency reductions for pathogens and vector attraction reduction. There are conceivable circumstances such as lagoons and drying beds where intense infrequent sampling makes more sense than sampling more frequently. This does not preclude Ecology from denying a request to reduce monitoring frequency.**

**WAC 173-308-170:** We repeat comments made during Ecology's presentation to the NBMA Board of Directors in January. Absent research or evidence that there is a problem with Alternative 3 & 4, we see no reason to eliminate them as options. This constitutes a significant departure from the federal rule with absolutely no scientific data to base this change. We remind Ecology that all pathogen reduction alternatives are based on the same tests. PFRP processes were proved to be PFRP using the same tests. EPA has repeatedly said that the federal rule is protective of public health and the environment and that there are no documented cases of health problem resulting from Biosolids prepared and distributed or applied in accordance with federal rules. LUD believes that requiring sampling plans approved by Ecology for determination of Class A quality under alternative 3 and 4 can provide the assurance that a Class A pathogen reduction status is indeed attained.. We believe that Ecology needs to provide some guidance to regional coordinators and to the regulated community on how to put together an acceptable plan. ***We offer our services in creating a work group that includes Ecology sampling and statistical analysis experts and members of the regulated community*** for the purpose of creating a guidance document for creating sampling plans for the purpose of determining Class A quality under alternatives 3 and 4.

**WAC 173-308-192:** LUD supports the exemptions for research in this section of the rule. We would suggest that Ecology remove the 10 acre restriction in size and rely on Ecology's own judgment as to whether the size of the research project is appropriate to support the goals of the research and demonstration. WAC 173-308- 192 (2) (c) requires an explanation for the sizing of the research plots and restricts the size to no greater than necessary to accomplish the objectives of the research. This section provides adequate protection from nefarious over sized research projects.

**WAC 173-308-193:** We see the exemptions granted for composting toilets as a defacto endorsement of a product of questionable quality. LUD suggests that Ecology either redefine this material as something other than domestic septage or provide some sort of caution as to the use of this material.

**WAC 173-308-205 (1):** *Biosolids (including septage) or sewage sludge must contain less than X manufactured inerts per unit of application area.* Meeting this requirement may occur at any point in the treatment process. Since the objective of this section is to limit the amount of trash that is being land applied, we believe a limit on the actual amount of "manufactured inerts" in Biosolids is likely to be more successful, less subjective and easier

to measure than measuring (or evaluating) the efficacy of a treatment plant in reducing manufactured inerts across its processes. In effect we do not care how much trash is coming into the plant as long as the Biosolids being land applied or distributed is relatively free of trash.

**WAC 173-308-205 (2): The installation of screening may require more than 2 years to implement.** We suggest this language for (2) “*Facilities must meet this requirement by July 2009 or amend their facility plan to include screening (or other method for meeting this requirement) within the next NPDES permit cycle*”

***WAC 173-308-270 Domestic Septage Management Requirements***

LUD recognizes that septage is and will continue to be a difficult management problem. We continue to encourage Ecology review and implement the findings of the Septage Management Action Committee (SMAC). In particular, the LUD favors a policy that encourages the development of centralized septage facilities. LUD believes that determining if and when class III septage is “largely stabilized will be difficult making enforcement of this section difficult. We believe it would be prudent to reiterate the requirement for screening (or removal of manufactured or inert wastes) in this section in order to make this requirement more visible to those only interested in septage.

**WAC 173-308-270 (4) (k) (iii):** LUD believes that the sign should specifically call out that the material being applied is septage. **Ecology differentiates between Biosolids and septage in its rule. We believe that differences between the materials and between the management practices are different enough to warrant explicit wording in public notice postings.**

***WAC 173-308-290 Recordkeeping***

The targeted vegetation grown on each site and its nitrogen requirement. We recommend that ‘annual’ be removed from item (d) to better reflect operations on sites with non-annual application intervals, e.g., forests may be applied every 3-4 years, dry land wheat with 2 year (or more) fallow rotation, rangeland given a 5-year application rate.

***WAC 173-308-310 Permitting***

LUD believes that the addition to allow a 180-day extension to the application deadline on a case-by-case basis needs criteria to base this upon. We also suggest that Ecology accept more electronic submissions to save paper and file space. The public would also have easier access to online applications and reports.

***WAC 173-308-320 Permit Fees***

We suggest Ecology clarify that the permit review fee and annual permit fee are separate and additive.

**Appendix 3 (9)** We suggest standard USGS map scales be used (i.e. 1:24,000) rather than inches to the mile.

**COMMENTER 15: Greg Bush, Planning and Compliance Manager, King County Wastewater Treatment Division**

The King County Wastewater Treatment Division would like to provide comments on the proposed revisions to WAC 173-308, Biosolids Management. We are pleased with Ecology’s continued commitment to support the maximum beneficial use of biosolids while protecting human health and the environment. We appreciate the process Ecology used to gain broad stakeholder involvement through the biosolids rule revision advisory group. Ecology set an ambitious schedule for the process and most topics of concern were creatively resolved in collaboration with the advisory group. However, we are concerned that not all revisions in the final proposal were brought forward to the advisory group for discussion. King County encourages Ecology to continue to consult with stakeholders on unresolved topics, with the goal of implementing science-based, fiscally responsible revisions, rather than imposing unilateral changes through the rule itself. Once these issues are resolved, they could be implemented through the general permit or Biosolids Management Guidelines.

***Specific Comments***

**WAC 173-308-005 (1)** proposed wording: Sewage sludge is the semi-solid material that is generated during treatment of domestic sewage in a treatment works. We recommend that the first sentence be revised to be more consistent with definition in the federal rule and with Ecology’s WAC 173-308-080 definition.

**WAC 173-308-080 – Definitions.**

Proposed wording “Agronomic rate” is the biosolids application rate that provides the amount of nitrogen necessary for the optimum growth of *targeted vegetation types*. This change is recommended to clarify that the agronomic rate is calculated based on nitrogen uptake rate of the targeted crop but may also includes the nitrogen uptake of associated species. This is a particularly important component of the agronomic rate calculation in forest ecosystems.

**“Significantly remove manufactured inerts”**

We suggest a measurable standard be established rather leaving it to subjective opinion. “Significant removal” implies that we would need to measure amount of trash that enters the treatment plant and how much is removed. Because there is currently no consensus on what an acceptable level of manufactured inerts would be, or measurement method, we strongly suggest that Ecology continue to work with stakeholders. Such criteria could be addressed in the general permit where it can more easily be amended in the future as we gain more experience and monitoring data.

**WAC 173-308-130 (1) (a)** we support Ecology’s revision to allow biosolids to be exported into Washington under the provisions outlined in this section and the fees as required in WAC 173-308-320.

**WAC 173-308-150 (4)** We support this revision; it simplifies requirements and reduces cost of monitoring for small plants, such as the Vashon treatment plant, that transfer all solids to another facility for further treatment.

**WAC 173-308-150 (5)** Proposed wording: After the biosolids have been monitored for two years at the frequency in this section, the person who prepares the biosolids may request the department to reduce the frequency of monitoring for pollutant concentrations, *pathogen reduction and vector attraction reduction*. While Ecology’s proposal does not affect facilities that rely on process control standards, we believe there is no reason to eliminate the flexibility to request sampling frequency reductions for pathogens and vector attraction reduction as well as pollutants. There are conceivable circumstances such as lagoons and drying beds where intense infrequent sampling makes more sense than sampling more frequently. This does not preclude Ecology from denying a request to reduce monitoring frequency.

**WAC 173-308-170.** We strongly disagree with Ecology’s proposal to eliminate Class A Alternatives 3 and 4. Absent research or evidence that there is a problem with the pathogen testing methods in Alternatives 3 and 4, we see no reason to eliminate them as options. This constitutes a significant departure from the federal rule with absolutely no scientific data to base this change. We remind Ecology that all federal and state pathogen reduction alternatives are based on these same tests. PFRP processes were proved to be PFRP using the same tests. EPA has repeatedly said that the federal rule is protective of public health and the environment and that there are no documented cases of health problem resulting from biosolids prepared and distributed or applied in accordance with federal rules. King County believes that requiring sampling plans approved by Ecology for determination of Class A quality under alternative 3 and 4 can provide the assurance that a Class A pathogen reduction status is indeed attained. We suggest that Ecology provide guidance to regional coordinators and to the regulated community on how to put together an acceptable plan. We recommend that Ecology form a work group that includes experts in pathogen testing and statistical analysis along with members of the regulated community for the purpose of creating a guidance document for creating sampling plans for the purpose of determining Class A quality under alternatives 3 and 4.

**WAC 173-308-192.** King County supports the exemptions for research in this section of the rule. We suggest that this be extended to demonstration projects as well. By Ecology’s definition, a “site” includes buffer areas; given Ecology’s proposed language, it is not clear whether this exemption would accommodate research sites where the biosolids-applied area is less than 10 acres, but the total area, including buffers or other plots may be greater than 10 acres. We recommend that Ecology remove the 10-acre restriction in site size and allow a case by case determination on whether the size of a research project is appropriate to support the goals of the research and demonstration. WAC 173-308-192 (2) (c) requires an explanation for the sizing of the research plots and restricts the size to no greater than necessary to accomplish the objectives of the research.

**WAC 173-308-205 (1)** We suggest that Ecology set a limit on the amount of “manufactured inerts” in biosolids, and that a practical method for measurement be developed in collaboration with stakeholders. We suggest removing the term “sewage sludge” from this requirement, because only biosolids may be land applied.

**WAC 173-308-205 (2)** Suggested wording: “*Facilities must meet this requirement by July 1, 2009 or amend their facility plan to include screening (or other method for meeting this requirement) within the next NPDES permit cycle.*” For King County, the cost to upgrade screening at one of our large treatment plants would be a multi-million dollar capital project that would require at least two to four years to design and construct. Will design criteria be integrated into Ecology’s Criteria for Sewage Works Design (Orange Book)?

**WAC 173-308-290 Recordkeeping**

(3) (d) “*The targeted vegetation grown on each site and its nitrogen requirement.*” We recommend that ‘annual’ be removed to better reflect operations on sites with non-annual application intervals. For example, forests may be applied every 3-4 years; dryland wheat (with a fallow rotation) may be applied on a two-year or greater cycle.

**WAC 173-308-310 Permitting**

The NBMA believes that the addition to allow a 180-day extension to the application deadline on a case-by-case basis needs criteria to base this upon. We also suggest that Ecology accept more electronic submissions to save paper and file space. The public would also have easier access to online applications and reports.

**WAC 173-308-320 Permit Fees**

We suggest Ecology clarify that the permit review fee and annual permit fee are separate and additive. We concur with Ecology’s extensive revision to the fee structure.

**Appendix 3 (9)** we recommend that Ecology include the option to use standard USGS map scales (i.e. 1:24,000).

**COMMENTER 16: Jim Wright, J.A. Wright Construction**

I got your letter concerning the rule amendments. I also had a look at some of the minutes and such from the meetings. Everything looks reasonable to me. I did think the annual permit fee of \$600 was a bit much for a smaller operation like mine, but then these are the type of operations that take the most time. I also see how it can get “other” operations up to snuff so to say. Everything looks OK to me.

**COMMENTER 17: Dan Curry, City of Wenatchee, 25 North Worthen, Wenatchee, Washington, 98801.**

The comment we would like to make is that the implementation date is far too soon for us to comply in any realistic manner. And, we would request that any implementation of these rules be extended to the end of our permit period, which I believe is 2010. And, in the meantime, because you are trying to encourage research here, that we would encourage the Department of Ecology to partner with those cities that use drying beds and perform some research with us on this to try and develop an alternative that we can eventually implement and use in the future. Drying beds are efficient, they’re effective. Our testing over the last 12 years has... we have never been out of compliance with the parameters given to us for Class A, exceptional quality biosolids by using the process that we use through anaerobic digestion, sludge de-watering, and drying, and it is cost effective for communities our size. And, I think that’s what we would like to see, because June of this year, we’re in a mess if you impose that on us that year, or even in the next two years. It takes a long time to get an application site for a Class B where we are. It’s a long ways to go. So, we’d like to keep that. That’s about it.

**COMMENTER 18: Ruel Klempel, 4727 Eltopia West Road, Eltopia, Washington.**

I agree with all the comments that were just previously made by the city of Wenatchee. The other thing that I would bring up also, is, that in regards to the reduction of recognizables, I agree that there should not be garbage put out in fields, but the wording of “significant removal” does not really describe what they want us to do. It leaves it too vague, and I think it needs to be spelled out a little clearly on what that means. One of the examples I gave was if you had a 5 gallon bucket of biosolids that you’re ready to take out into the field, and you were to dump it on a table and spread it out in an area maybe a square yard area, and you were to pick through the whole thing and take out what recognizables you might find in there, it may not exceed a certain amount – maybe a square inch, or a couple of square inch, or whatever it might be. I don’t know what a good number would be on that, but it’s something that needs to be looked into.

**CHAPTER 45 APPENDIX B**  
**CHANGES TO THE PROPOSED RULE AMENDMENTS**

# CHAPTER 173-308 WAC BIOSOLIDS MANAGEMENT

Last Update: May 18, 2007

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**WAC 173-308-005 EXPLANATION FOR THE USE OF THE TERMS, “SEWAGE SLUDGE”, “BIOSOLIDS”, AND “SEPTAGE”.**

- (1) Sewage sludge is the solid, semisolid, or liquid residue generated during the treatment, of domestic sewage in a treatment works. Biosolids are produced by treating sewage sludge to meet certain quality standards that allow it to be applied to the land for beneficial use. Septage is a class of biosolids that comes from septic tanks and similar systems receiving domestic wastes.
- (a) **Sewage sludge.** Unless the context requires otherwise, “sewage sludge” is the term used in this chapter to refer to the residual material produced by a treatment works treating domestic sewage that does not meet the standards to be classified as biosolids or that is being disposed in a municipal solid waste landfill.
- (b) **Biosolids.** Unless the context requires otherwise, “biosolids” is the term used in this chapter to refer to sewage sludge or septage that has been or is being treated to meet standards so that it can be applied to the land.
- (c) **Septage.** Unless the context requires otherwise, “septage” is the term used in this chapter to refer to septage that is or will be managed as septage.
- (2) The following sections apply only to biosolids or septage managed as biosolids originating from sewage sludge: WAC 173-308-150, 173-308-160, 173-308-170, 173-308-180, 173-308-200, 173-308-210, 173-308-250, and 173-308-260.
- (3) WAC 173-308-270 addresses the management requirements for septage.
- (4) Unless the context requires otherwise, all other sections apply to all biosolids, including septage.

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**Comment [DKT1]:** The revisions to this sentence were made to provide clarification and to use the same definition of sewage sludge as that found in WAC 173-308-080 and 40 CFR Part 503.

**Deleted:** a wastewater treatment system that treats domestic wastes

**WAC 173-308-010 AUTHORITY AND PURPOSE.**

- (1) **Authority.** This chapter is adopted under the authority of chapters 70.95J and 70.95 RCW.
- (2) **Purpose.** The purpose of this chapter is to protect human health and the environment when biosolids are managed.
- (a) This chapter encourages the maximum beneficial use of biosolids and is intended to conform to all applicable federal rules adopted under the Federal Clean Water Act as it existed on February 4, 1987.
- (b) This chapter establishes permitting requirements for treatment works treating domestic sewage that engage in applicable biosolids treatment or management practices, including any person, site, or facility that has been designated as a treatment works treating domestic sewage.
- (c) This chapter establishes standards for the treatment, quality, and management of sewage sludge and septage that are directly enforceable and that allow these materials to be classified and managed as biosolids.
- (d) This chapter establishes requirements, standards, management practices, and monitoring, recordkeeping and reporting requirements that are applicable when biosolids are applied to the land and when sewage sludge is disposed in a municipal solid waste landfill unit as defined in chapter 173-351 WAC.
- (e) This chapter establishes fees for permits issued to treatment works treating domestic sewage.

**WAC 173-308-020 APPLICABILITY.**

- (1) These rules apply to all treatment works treating domestic sewage as defined by this chapter. In addition, these rules apply to, but are not limited to, the following:
  - (a) A person who prepares biosolids or sewage sludge.
  - (b) A person who stores biosolids or sewage sludge.
  - (c) A person who applies biosolids to the land.
  - (d) Biosolids that are applied to the land.
  - (e) The land where biosolids are applied.
  - (f) The owner and lease-holder of land where biosolids are applied.
  - (g) A person who disposes of sewage sludge in a municipal solid waste landfill.
  - (h) Sewage sludge that is disposed of in a municipal solid waste landfill.
  - (i) Biosolids or sewage sludge generated at an industrial facility during the treatment of only domestic sewage.
  - (j) A person who transfers biosolids or sewage sludge from one facility to another.
  - (k) A person who transports biosolids or sewage sludge.
  - (l) Mixtures of biosolids and other materials including, but not limited to, solid wastes.

(2) This chapter does not apply to the following sewage sludge and biosolids management facilities and practices:

- (a) The firing of biosolids or sewage sludge in an incinerator.
- (b) The placing or disposal of sewage sludge in facilities other than municipal solid waste landfills (e.g., the placement of sewage sludge at a surface disposal site).

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(3) Except as provided in (g) of this subsection, the following solid wastes are not regulated under this chapter:

- (a) Sludge generated at an industrial facility during the treatment of industrial wastewater, including when such a facility combines their industrial wastewater with their domestic sewage.
- (b) Sewage sludge determined to be hazardous in accordance with chapter 70.105 RCW or rules adopted thereunder.
- (c) Sewage sludge with a concentration of polychlorinated biphenyls (PCBs) equal to or greater than 50 milligrams per kilogram of total solids (dry weight basis).
- (d) Ash generated during the firing of sewage sludge or biosolids in an incinerator.
- (e) Grit or screenings generated during preliminary treatment of domestic sewage in a treatment works.
- (f) Sludge generated during the treatment of either surface water or ground water used for drinking water.

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(g) Commercial or industrial septage, or a mixture of domestic septage and commercial or industrial septage except as allowed in accordance with this subsection.

Comment [DKT2]: The changes to (g) of this subsection are for clarification purposes and to partially establish in rule the policy that the department intended to create regarding this issue.

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(i) Grease trap wastes from restaurants and similar food service facilities may be mixed with domestic septage up to 25 percent by volume.

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(ii) On a case-by-case basis, on request of a septage management facility or at the department's discretion, the department may designate other commercial or industrial septage as septage that is "domestic in quality" and require the septage to be managed in accordance with the provisions of this chapter.

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(iii)At no time may the combined total of grease trap wastes and other commercial or industrial septage mixed with domestic septage exceed 25 percent by volume.

### **WAC 173-308-030      RELATIONSHIP TO OTHER LAWS, REGULATIONS, AND ORDINANCES.**

In addition to the requirements of this chapter, other laws, regulations, and ordinances may also apply to biosolids or sewage sludge. These include, but are not limited to, the following:

- (1) Commercial fertilizers are subject to regulation by the Washington state department of agriculture. Biosolids meeting the definition of a commercial fertilizer must comply with chapter 15.54 RCW and chapter 16-200 WAC.
- (2) Except as required in WAC 173-308-100, the transportation of biosolids or sewage sludge is subject to regulation by the Washington state utilities and transportation commission under Title 81 RCW.
- (3) Facilities required to obtain permits under WAC 173-308-310 must comply with the requirements in chapter 43.21C RCW and the State Environmental Policy Act (SEPA) rules adopted under chapter 197-11 WAC. Public notice and hearing requirements under SEPA may be coordinated with the similar requirements of this chapter.
- (4) Biosolids facilities and sites where biosolids are applied to the land must comply with the requirements of chapter 90.48 RCW and chapters 173-200 and 173-201A WAC.
- (5) Facilities and sites where biosolids are applied to the land or sewage sludge is disposed must comply with the federal biosolids rule, 40 CFR Part 503.
- (6) Facilities and sites where biosolids are applied to the land must comply with other applicable federal, state and local laws, regulations, and ordinances, including zoning and land use requirements.
- (7) The enforcement of other laws, regulations, and ordinances is the responsibility of the agency with jurisdiction.

### **WAC 173-308-040      DIRECT ENFORCEABILITY.**

All persons and facilities subject to the requirements of this chapter must comply with these rules on the effective date of the applicable regulation, regardless of whether or not a permit has been issued under WAC 173-308-310.

### **WAC 173-308-041      ENFORCEMENT.**

Any violation of this chapter or any permit issued under this chapter may be subject to the enforcement provisions of applicable law including, but not limited to, chapters 70.95 and 70.95J RCW.

### **WAC 173-308-042      APPEALS.**

Any person aggrieved by a decision of the department made in accordance with provisions of this chapter may appeal that decision only as provided by applicable law including, but not limited to, chapters 43.21B and 34.05 RCW.

### **WAC 173-308-050      DELEGATION OF AUTHORITY.**

Upon the request of a local health jurisdiction, the department may delegate authority to implement and assist in the administration of appropriate portions of this chapter.

Delegation must be consistent with any applicable state-EPA agreement regarding delegation of federal biosolids program authority.

**(1) Method of delegation.**

- (a) Delegation will be accomplished through an instrument of mutual consent that is acceptable to both the department and the local health jurisdiction seeking delegation.
- (b) The department may revoke part or all of a delegation of authority under this section if it finds that a local health jurisdiction has failed to adequately carry out any portion of a delegated responsibility.

**(2) Contents of delegation agreements.**

- (a) At a minimum, delegation agreements must specify the authorities and responsibilities that are being delegated to a local health jurisdiction.
- (b) Other authorities and responsibilities are assumed to be retained by the department.
- (c) All delegation agreements must have a termination date that is no more than 5 years from the date signed.

**WAC 173-308-060      BIOSOLIDS NOT CLASSIFIED AS SOLID WASTE.**

- (1) The state of Washington recognizes biosolids as a valuable commodity.
- (2) Biosolids are not solid waste and are not subject to regulation under solid waste laws.
- (3) Sewage sludge or septage that fails to meet standards for classification as biosolids is a solid waste, and may not be applied to the land.
- (4) Sewage sludge or septage that will be disposed in a landfill is a solid waste.

**WAC 173-308-080      DEFINITIONS.**

Unless the department determines that the context of the rule requires otherwise, the following definitions are applicable for the purposes of this chapter.

**“Administrator”** means the Administrator of the United States Environmental Protection Agency, or an authorized representative.

**“Aerobic digestion”** is the biochemical decomposition of organic matter in biosolids into carbon dioxide and water by microorganisms in the presence of air. Aerobic digestion does not include composting.

**“Agricultural land”** is land on which a food crop, feed crop, or fiber crop is grown. This includes range land and land used as pasture.

**“Agronomic rate”** is the biosolids application rate that provides the amount of nitrogen necessary for the optimum growth of targeted vegetation, and that will not result in the violation of applicable standards or requirements for the protection of ground or surface water as established under chapter 90.48 RCW and related rules including chapters 173-200 and 173-201A WAC.

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**“Anaerobic digestion”** is the biochemical decomposition of organic matter in biosolids into methane gas and carbon dioxide by microorganisms in the absence of air. Anaerobic digestion does not include composting.

**“Apply biosolids or biosolids applied to the land”** means the land application of biosolids for the purpose of beneficial use.

**“Beneficial use facility”** means a receiving-only facility consisting of a site or sites where biosolids from other treatment works treating domestic sewage are applied to the land for

beneficial use, which has been permitted as a treatment works treating domestic sewage in accordance with the provisions of WAC 173-308-310, and that has been designated as a beneficial use facility through the permitting process.

**“Beneficial use of biosolids”** means the application of biosolids to the land for the purposes of improving soil characteristics including tilth, fertility, and stability to enhance the growth of vegetation consistent with protecting human health and the environment.

**“Biosolids”** means municipal sewage sludge that is a primarily organic, semisolid product resulting from the wastewater treatment process, that can be beneficially recycled and meets all applicable requirements under this chapter. Biosolids includes a material derived from biosolids, and septic tank sludge, also known as septage, that can be beneficially recycled and meets all applicable requirements under this chapter. For the purposes of this rule, semisolid products include biosolids or products derived from biosolids ranging in character from mostly liquid to fully dried solids.

**“Biosolids sold or given away in a bag or other container”** means biosolids sold or given away to the general public in a bag or other container holding less than 1 metric ton (1.1 U.S. tons).

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**“Bulk biosolids”** means biosolids that are not sold or given away in a bag or other container for application to the land.

**“Ceiling concentration”** means the maximum concentration of a pollutant in any biosolids sample, beyond which level the biosolids would be classified as sewage sludge not suitable for application to the land. Ceiling concentrations are established in Table 1 of WAC 173-308-160.

**“Class I biosolids management facility”** is any publicly owned treatment works (POTW), as defined in 40 CFR 501.2, required to have an approved pretreatment program under 40 CFR 403.8(a) (including any POTW located in a state that has elected to assume local program responsibilities under 40 CFR 403.10(e)), and any treatment works treating domestic sewage, as defined in 40 CFR 122.2, classified as a Class I biosolids management facility by the EPA Regional Administrator, or in the case of approved state programs, the Regional Administrator in conjunction with the state director, because of the potential for its biosolids use or disposal practice to affect public health and the environment adversely.

**“Clean Water Act”** or **“CWA”** means the Clean Water Act or Federal Clean Water Act (FCWA) (formerly referred to as either the Federal Water Pollution Act or the Federal Water Pollution Control Act Amendments of 1972), Public Law 92-500, as amended by Public Law 95-217, Public Law 95-576, Public Law 96-483, Public Law 97-117, and Public Law 100-4.

**“Composting”** means the biological degradation of organic material under controlled conditions designed to promote aerobic decomposition. This does not include the treatment of sewage sludge in a digester at a wastewater treatment plant.

**“Cumulative pollutant loading rate”** is the maximum amount of a pollutant that can be applied to an area of land from biosolids that exceed the pollutant concentration limits established in Table 3 of WAC 173-308-160.

**“Density of microorganisms”** is the number of microorganisms per unit mass of total solids (dry weight) in the biosolids.

**“Department”** means the Washington state department of ecology and, within the scope of its delegation, a local health jurisdiction that has been delegated authority under WAC 173-308-050.

**“Director”** means the director of the department of ecology or his or her authorized representative.

“**Disposal on an emergency basis**” means a period up to but not exceeding 1 year. Generally, emergency situations requiring the use of disposal facilities will normally occur as a result of inclement weather conditions at a beneficial use site, contractual or technical difficulties in the treatment, transportation, or application of the biosolids, or as a result of short term economic or administrative barriers, any and all of which are expected to be resolved within a period of 1 year.

“**Disposal on a long-term basis**” means to adopt disposal as a preferred method of management for at least 5 years, or for an indefinite period of time with no expectation for pursuing other management alternatives.

“**Disposal on a temporary basis**” means a period of more than 1 but less than 5 years. Generally, situations requiring the temporary use of disposal facilities will normally occur as a result of deficiencies in the wastewater or biosolids treatment process, or economic, administrative, or contractual constraints which cannot be resolved in less than 1 year.

“**Domestic sewage**” is waste and wastewater from humans or household operations that is discharged to or otherwise enters a treatment works.

“**Dry weight basis**” means calculated on the basis of having been dried at 105°C (221°F) until reaching a constant mass (i.e., essentially 100 percent solids content).

“**EPA**” means the United States Environmental Protection Agency.

“**Exceptional quality biosolids**” means biosolids that meet the pollutant concentration limits in Table 3 of WAC 173-308-160, and at least one of the Class A pathogen reduction requirements in WAC 173-308-170, and at least one of the vector attraction reduction requirements in WAC 173-308-180.

“**Facility**” means a treatment works treating domestic sewage as defined in this chapter, unless the context of the rule requires otherwise. For the purposes of this chapter a facility is considered to be new if it has not been previously approved for the treatment, storage, use, or disposal of biosolids or sewage sludge.

“**Feed crops**” are crops produced primarily for consumption by animals.

“**Fiber crops**” are crops such as flax and cotton including, but not limited to, those whose parts or by-products may be consumed by humans or used in the production or preparation of food for human consumption.

“**Food crops**” are crops consumed by humans. These include, but are not limited to, fruits, vegetables, grains, and tobacco.

“**Forest**” is an area of land that is managed for the production of timber or other forest products, or for benefits such as recreation and watershed protection, and that is or will be dominated by trees under the current system of management. For the purposes of this rule, other areas of land that are not regulated as agricultural land, public contact sites, land reclamation sites, or lawns or home gardens are considered forest land.

“**General permit**” means a permit issued by the department in accordance with the procedures established in this chapter, to be effective in a designated geographical area, that authorizes the application of biosolids to the land or the disposal of sewage sludge in a municipal solid waste landfill, under which multiple treatment works treating domestic sewage may apply for coverage.

“**Geometric mean**” means the antilogarithm of the arithmetic average of the logarithms of the sample values, or the nth root of the product of n sample values.

“**Ground water**” means water in a saturated zone or stratum beneath the surface of land or below a surface water body.

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**“Health jurisdiction”** or **“local health jurisdiction”** means city, county, city-county, or district public health jurisdiction as defined in chapters 70.05, 70.08, and 70.46 RCW.

**“Individual permit”** means a permit issued by the department to a single treatment works treating domestic sewage in accordance with WAC 173-308-310, which authorizes the management of biosolids or sewage sludge.

**“Industrial septage”** or **“commercial septage”** is the contents from septic tanks or similar systems that receive wastewater generated in a commercial or industrial process. This definition includes, but is not limited to, grease trap wastes generated at restaurants and similar food service facilities.

**“Industrial wastewater”** or **“commercial wastewater”** is wastewater generated in a commercial or industrial process.

**“Land application”** is the application of biosolids to the land surface by means such as spreading or spraying, the injection of biosolids below the land surface, or the incorporation of biosolids into the soil, for the purpose of beneficial use.

**“Land with a low potential for public exposure”** is land that the public uses infrequently. This includes, but is not limited to, agricultural land, forest, and a reclamation site located in an unpopulated area (e.g., a strip mine located in a rural area).

**“Land with a high potential for public exposure”** is land that the public uses frequently. This includes, but is not limited to, a public contact site and a reclamation site located in a populated area (e.g., a construction site located in a city).

**“Local health jurisdiction”** see definition of health jurisdiction.

**“Manufactured inerts”** means wastes such as plastic, metals, ceramics and other manufactured items that remain relatively unchanged during wastewater or biosolids treatment processes.

**“Monthly average”** is the arithmetic mean of all measurements taken during the month.

**“Municipal sewage sludge”** means sewage sludge generated from a publicly owned treatment works. For the purposes of this chapter, sewage sludge generated from the treatment of only domestic sewage in a privately owned or industrial treatment facility is considered municipal sewage sludge.

**“Municipality”** means a city, town, borough, county, parish, district, association, or other public body (including an inter-municipal agency of two or more of the foregoing entities) created by or under state law, or a designated and approved management agency under section 208 of the Clean Water Act, as amended. The definition includes a special district created under state law, such as a water district, sewer district, sanitary district, utility district, drainage district, or similar entity, or an integrated waste management facility as defined in section 201(e) of the Clean Water Act, as amended, that has as one of its principal responsibilities the treatment, transport, use, or disposal of biosolids.

**“Nonexceptional quality biosolids”** means biosolids that do not meet the criteria of “exceptional quality biosolids” as defined in this section.

**“Other container”** is either an open or closed receptacle. This includes, but is not limited to, a bucket, a box, a carton, and a vehicle or trailer with a load capacity of 1 metric ton (1.1 U.S. tons) or less.

**“Owner”** means any person with ownership interest in a site or facility, or who exercises control over a site or facility, but does not include a person who, without participating in management of the site or facility, holds indicia of ownership primarily to protect the person's security interest.

**“Pasture”** is land on which animals feed directly on feed crops such as legumes, grasses, grain stubble, or stover.

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**Comment [DKT4]:** This definition was added because the terms are used in WAC 173-308-020(3)(g), but they were not previously defined.

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“**Pathogenic organisms**” are disease causing organisms. These include, but are not limited to, certain bacteria, protozoa, viruses, and viable helminth ova.

“**Permit**” means an authorization, license, or equivalent control document issued by the director to implement the requirements of this chapter. Unless the context requires differently, the use of the term in this chapter refers to individual permits, general permits, and coverage under general permits.

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Comment [DKT5]: Added for clarification purposes.

“**Person**” is an individual, association, partnership, corporation, municipality, state or federal agency, or an agent or employee thereof.

“**Person who prepares biosolids**” is either the person who generates biosolids during the treatment of domestic sewage in a treatment works or the person who derives a material from biosolids.

“**pH**” means the logarithm of the reciprocal of the hydrogen ion concentration.

“**Place sewage sludge**” or “**sewage sludge placed**” means to dispose of sewage sludge.

“**Pollutant**” is an organic substance, an inorganic substance, a combination of organic and inorganic substances, or a pathogenic organism that, after discharge and upon exposure, ingestion, inhalation, or assimilation into an organism either directly from the environment or indirectly by ingestion through the food chain, could, on the basis of information available to the Administrator of EPA, cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunction in reproduction), or physical deformations in either organisms or offspring of the organisms.

“**Pollutant limit**” is a numerical value that describes the amount of a pollutant allowed per unit amount of biosolids (e.g., milligrams per kilogram of total solids), the amount of a pollutant that can be applied to a unit area of land (e.g., kilograms per hectare), the volume of a material that can be applied to a unit area of land (e.g., gallons per acre), or the number of pathogens or indicator organisms per unit of biosolids. Pollutant limits are established in Tables 1 - 3 of WAC 173-308-160, in 173-308-170, and in 173-308-270.

“**Public contact site**” is land with a high potential for contact by the public. This includes, but is not limited to, public parks, ball fields, cemeteries, plant nurseries, turf farms, and golf courses.

“**Publicly owned treatment works**” means a treatment works treating domestic sewage that is owned by a municipality, the state of Washington, or the federal government.

“**Range land**” is generally open, uncultivated land dominated by herbaceous or shrubby vegetation that may be used for grazing or browsing, either by wildlife or livestock.

“**Receiving-only facility**” means a treatment works treating domestic sewage that only receives sewage sludge or biosolids from other sources for further treatment and/or application to the land, and which does not generate any biosolids from the treatment of domestic sewage.

“**Reclamation site**” is drastically disturbed land that is reclaimed using biosolids. This includes, but is not limited to, strip mines and construction sites.

“**Regional administrator**” means the Regional Administrator of Region 10 of the Environmental Protection Agency or his/her authorized representative.

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“**Residential equivalent value**” means the number of residential equivalents determined for a facility under chapter 173-224 WAC or a value similarly obtained under WAC 173-308-320.

“**Restrict public access**” means to minimize access of nonessential personnel to land where biosolids are applied, through the use of natural or artificial barriers, signs, remoteness, or other means.



“**Saturated zone**” means the zone below the water table in which all interstices are filled with water.

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

Comment [DKT6]: This was added for clarification purposes and to alert readers to examine the cited subsection if they seek to handle commercial or industrial septage.

“**Septage managed as biosolids originating from sewage sludge**” means septage managed as if it had originated from a sewage treatment process at a wastewater treatment facility including, but not limited to, meeting the sampling requirements in WAC 173-308-140, the monitoring requirements in WAC 173-308-150, the pollutant limits in WAC 173-308-160, the pathogen reduction requirements in WAC 173-308-170, and the vector attraction reduction requirements in this chapter.

“**Septage management facility**” means a person who applies septage to the land or one that treats septage for application to the land.

“**Sewage sludge**” is solid, semisolid, or liquid residue generated during the treatment of domestic sewage in a treatment works. Sewage sludge includes, but is not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment processes; and a material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screenings generated during preliminary treatment of domestic sewage in a treatment works.

“**Significant change in biosolids management practices**” means, but is not limited to, the following: a change in the quality of biosolids that are applied to the land, either from class A to class B for pathogens, or from Table 3 to Table 1 of WAC 173-308-160 for pollutant limits; the addition of a new area to which biosolids will be applied which was not previously disclosed during a required public notice process; for class B biosolids only, a change from nonfood crops to food crops, a change from crops where the harvestable portions do not contact the biosolids/soil mixture to crops where the harvestable portions contact the biosolids/soil mixture, or a change in site classification from land with a low potential for public exposure to land with a high potential for public exposure; or any change or deletion of a requirement established in an approved land application plan or established as a condition of coverage under a permit that would result in a decrease in buffer size, site monitoring, or facility reporting requirements, which was not otherwise provided for in the permit or plan approval process.

Comment [DKT7]: This was deleted because it was no longer needed following amendments to WAC 173-308-205 to provide for a more objective standard for “significant removal” and “significant reduction” of manufactured inerts.

“**Site**” means all areas of land, including buffer areas, which are identified in the scope of an approved site specific land application plan. A site is considered to be new or expanded when biosolids are applied to an area not approved in a site specific land application plan or that was not previously disclosed during a required public notice process.

Deleted: “Significantly remove manufactured inerts” means to significantly remove manufactured inerts from biosolids or sewage sludge by means such as physical screening or another method to a level that, in the opinion of the department, will not result in an aesthetic nuisance or physical hazard

“**Specific oxygen uptake rate (SOUR)**” is the mass of oxygen consumed per unit time per unit mass of total solids (dry weight basis) in the biosolids.

“**State**” means the state of Washington.

“**Store or storage of biosolids or sewage sludge**” is the placing of biosolids or sewage sludge on land or in surface impoundments or other containment devices in which the biosolids or sewage sludge remain for 2 years or less, except where a greater time period has been approved by the department. This does not include the placing of biosolids or sewage sludge on land or in surface impoundments or other containment devices for treatment or disposal.

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“**Stover**” is the nongrain, above-ground part of a grain crop, often corn or sorghum.

Comment [DKT8]: The deletions and additions to this definition are for clarification purposes.

“**Surface impoundment**” means a facility or part of a facility which is a natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials (although it may be lined with man-made materials), and which is designed to hold an accumulation of liquids or sludges. The term includes holding, storage, settling, and aeration pits, ponds, or lagoons, but does not include injection wells.

“**Surface waters of the state**” means surface waters of the state as defined in WAC 173-201A-020.

“**Tank**” means a stationary device designed to contain an accumulation of liquid or semisolid materials and which is constructed primarily of nonearthen materials to provide structural support.

“**Temporary, small-scale storage**” is the storage of biosolids or sewage sludge for no more than 30 days in a tank holding no more than 10,000 gallons with a total on-site maximum volume of no more than 20,000 gallons.

“**Total solids**” are the materials in biosolids that remain as residue when the biosolids are dried at 103 to 105°C (217.4 to 221°F).

“**Treat or treatment of biosolids**” is the preparation of biosolids for final use or disposal. This includes, but is not limited to, thickening, stabilization, and dewatering of biosolids. This does not include storage of biosolids.

“**Treatment works**” is either a federally owned, publicly owned, or privately owned device or system used to treat (including recycle and reclaim) either domestic sewage or a combination of domestic sewage and industrial waste of a liquid nature.

“**Treatment works treating domestic sewage**” means a publicly owned treatment works or any other sewage sludge or wastewater treatment devices or systems, regardless of ownership, used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage or sewage sludge, including land dedicated for the disposal of sewage sludge. Treatment works treating domestic sewage also includes beneficial use facilities and septage management facilities as defined in this section, and a person, site, or facility designated as a treatment works treating domestic sewage in accordance with WAC 173-308-310(1)(b). This definition does not include septic tanks or similar devices or temporary, small-scale storage as defined in this section.

“**Unstabilized solids**” are organic materials in biosolids that have not been treated in either an aerobic or anaerobic treatment process.

“**Vector attraction**” is the primarily odorous characteristic of biosolids that attracts rodents, flies, mosquitoes, or other organisms capable of transporting infectious agents.

“**Volatile solids**” is the amount of the total solids in biosolids that are lost when the biosolids are combusted at 550°C (1,022°F) in the presence of excess air.

“**Waters of the state**” means waters of the state as defined in RCW 90.48.020.

“**Wetlands**” means those areas that are inundated or saturated by surface water or ground water at a frequency and duration to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

## **WAC 173-308-090      REQUIREMENT FOR A PERSON WHO PREPARES BIOSOLIDS OR SEWAGE SLUDGE.**

Any person who prepares biosolids or sewage sludge must ensure that the applicable requirements in this chapter and any applicable permit issued under this chapter are met when the biosolids are managed.

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Comment [DKT9]: Changes made are for clarification purposes.

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**WAC 173-308-100**

**REQUIREMENT FOR A PERSON WHO TRANSPORTS BIOSOLIDS OR SEWAGE SLUDGE.**

This section applies to facilities required to obtain a permit under this chapter who transport their biosolids or sewage sludge or contract for the transportation of their biosolids or sewage sludge.

Comment [DKT10]: Changes to this section are for clarification purposes and to use the same grammatical style throughout the section.

- (1) Any person who transports biosolids or sewage sludge must ensure that the transportation vehicle is properly cleaned prior to use of the vehicle for the transportation of food crops, feed crops, or fiber crops.
- (2) **Spill prevention/response plan.** Facilities must submit a spill prevention/response plan to the department which describes how they will attempt to prevent and respond to any spillage of biosolids or sewage sludge during transportation. The plan must include a list of contact names and numbers, an explanation of how and when they would be contacted, what their role is, and how a spill would be cleaned up. For those who contract for the transportation of their biosolids or sewage sludge, a contractor’s plan is sufficient if the minimal requirements are met.
- (3) The transportation of biosolids or sewage sludge is otherwise subject to regulation by the Washington state utilities and transportation commission under Title 81 RCW and WAC 173-308-030(2).

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**WAC 173-308-110**

**REQUIREMENT FOR A PERSON WHO APPLIES BIOSOLIDS.**

A person may not apply biosolids to the land except in accordance with applicable requirements of this chapter and any applicable permit issued under this chapter.

**WAC 173-308-120**

**REQUIREMENT TO OBTAIN AND PROVIDE INFORMATION.**

- (1) It is a violation of the provisions of this chapter for any person to falsify a certification or statement that is required by these rules or to make any required certification or statement under false pretense.
- (2) Any person who applies biosolids to the land must obtain information needed to comply with the requirements of this chapter.
- (3) The person who prepares biosolids must provide the person who applies biosolids to the land with notice and necessary information to comply with the requirements of this chapter, including sufficient information on the concentration and types of nutrients in the biosolids needed to determine an agronomic rate for the crop under management.
- (4) When a person who prepares biosolids provides the biosolids to another person who further prepares the biosolids, the person who provides the biosolids must provide the person who receives the biosolids notice and necessary information to comply with the requirements of this chapter.
- (5) The person who applies bulk biosolids to the land must provide the owner or lease holder of the land on which the bulk biosolids are applied notice and necessary information to comply with the requirements of this chapter.
- (6) The person who applies nonexceptional quality bulk biosolids to the land must obtain written approval of the landowner prior to applying biosolids to the land for the first time.
- (7) All persons required to keep and maintain records under any provision of this chapter must provide access to those records during normal business hours to a representative of the

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department, a local health jurisdiction, or the United States EPA, and to the owner, lessor, lessee or other person with a legal management interest in the land on which the biosolids are applied, at the location where the records are kept.

- (8) Any facility, including a beneficial use facility, must immediately notify all sources from which it receives biosolids, if at any time it becomes unsuitable for the purpose of receiving biosolids from those other sources.

### **WAC 173-308-130            REQUIREMENTS FOR TREATMENT WORKS LOCATED OUTSIDE OF THE JURISDICTION OF THE DEPARTMENT.**

When bulk biosolids or sewage sludge or biosolids in a bag or other container originating from treatment works located on tribal lands, in other states, or in other nations are exported into the state, the requirements of this section must be met.

- (1) Bulk biosolids or sewage sludge from a treatment works seeking its own management program within the state must meet the following requirements:
  - (a) The exporting facility must apply for a permit in accordance with the requirements in WAC 173-308-310 and receive final coverage under a general permit or receive an individual permit prior to exporting biosolids or sewage sludge into the state.
  - (b) The exporting facility must pay a fee as determined by the criteria specified in WAC 173-308-320.
- (2) Bulk biosolids or sewage sludge from a treatment works seeking to transfer its biosolids or sewage sludge to a facility within the state for management or further treatment must meet the following requirements:
  - (a) The exporting facility must receive written approval from the department prior to exporting biosolids or sewage sludge for the first time.
  - (b) There must be no sustainable objection to the approval required in (a) of this subsection from the EPA or the local health jurisdiction(s) in the county(s) where the material will be received.
  - (c) The biosolids or sewage sludge must be exported to a facility with a current permit issued by the department that allows it to accept biosolids or sewage sludge from other facilities.
  - (d) The receiving facility must maintain any applicable records and certification statements required in WAC 173-308-290 on the biosolids or sewage sludge from the exporting facility and provide such records to the department upon request and in its annual biosolids report.
  - (e) The exporting facility must pay a fee as determined by the criteria specified in WAC 173-308-320.
- (3) Biosolids in a bag or other container must meet the following requirements:
  - (a) The exporting facility must receive written approval from the department prior to exporting biosolids for the first time.
  - (b) The biosolids must meet the requirements in WAC 173-308-260.
- (4) The exporting facility must be in compliance with any other federal, state, provincial, or local biosolids or sewage sludge laws, regulations, and ordinances.
- (5) All other applicable requirements of this chapter must be met.

Comment [DKT11]: This text was added for clarification purposes.

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### **WAC 173-308-140            BIOSOLIDS SAMPLING AND ANALYTICAL**

**METHODS.**

- (1) **Sampling.** Samples that are collected and analyzed must be representative of the biosolids that are applied to the land.
- (2) **Analytical methods.**
  - (a) The most current version of the publications listed in this subsection are incorporated by reference. These publications are available for review during normal working hours at the Washington State Department of Ecology headquarters located at 300 Desmond Drive in Olympia, Washington. Copies may be obtained from the standard producer or publisher.
  - (b) Unless otherwise stipulated by the department, the following methods (or methods in 40 CFR Part 136 or 40 CFR Part 503) must be used to analyze samples of biosolids or sewage sludge.

Comment [DKT12]: Additional methods were added to the list, and two federal rules were cited. The effect is that facilities will have additional methods for testing their material. The reason for adding these methods and references is that EPA has revised 40 CFR Parts 503 and 136 to include these methods. The revision to 40 CFR Part 503 links the methods listed in that regulation with those listed in 40 CFR Part 136. Also, some method numbers were changed to be consistent with changes EPA is making to SW-846.

**ANALYTICAL METHODS**

Parameter	Analytical Method
Arsenic	SW-846 Method 6010
	SW-846 Method 6020
	SW-846 Method <u>7010</u>
	SW-846 Method 7061
Cadmium	SW-846 Method 6010
	SW-846 Method 6020
	SW-846 Method <u>7000B</u>
	SW-846 Method <u>7010</u>
Copper	SW-846 Method 6010
	SW-846 Method 6020
	SW-846 Method <u>7000B</u>
	SW-846 Method <u>7010</u>
Lead	SW-846 Method 6010
	SW-846 Method 6020
	SW-846 Method <u>7000B</u>
	SW-846 Method <u>7010</u>
Mercury	SW-846 Method 7470
	SW-846 Method 7471
Molybdenum	SW-846 Method 6010
	SW-846 Method 6020
	<u>SW-846 Method 7000B</u>
	SW-846 Method <u>7010</u>
Nickel	SW-846 Method 6010
	SW-846 Method 6020
	SW-846 Method <u>7000B</u>
	<u>SW-846 Method 7010</u>
Selenium	SW-846 Method 6010
	SW-846 Method 6020
	SW-846 Method <u>7010</u>
	SW-846 Method 7741
Zinc	SW-846 Method 6010
	SW-846 Method 6020
	SW-846 Method <u>7000B</u>

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	SW-846 Method <a href="#">7010</a>	Deleted: 7951
<b>Fecal Coliform</b>	SM 9221 <a href="#">C or E</a> SM 9222 D Appendix F, EPA/625/R-92/013 <a href="#">EPA 1680</a> <a href="#">EPA 1681</a>	Deleted: (MPN)
<b>Salmonella bacteria</b>	SM 9260 D Appendix G, EPA/625/R-92/013 <a href="#">EPA 1682</a>	
<b>Helminth Ova</b>	Appendix I, EPA/625/R-92/013	
<b>Enteric Viruses</b>	ASTM Designation: D 4994-89 Appendix H, EPA/625/R-92/013	
<b>Total Kjeldahl Nitrogen (TKN)</b>	SM Method 4500, N <sub>org</sub> B SM Method 4500, N <sub>org</sub> C	
<b>Nitrate (as N)</b>	SM Method 4500-NO <sub>3</sub> <a href="#">E, F, or H</a>	Deleted: ,
<b>Nitrite (as N)</b>	SM Method 4500-NO <sub>2</sub> <a href="#">B</a>	Deleted: -N
<b>Ammonia (as N)</b>	SM Method 4500-NH <sub>3</sub> <a href="#">B + C, D, E, or G</a>	Deleted: ,
<b>Organic Nitrogen</b>	Value calculated as TKN minus NH <sub>3</sub> -N	Deleted: -N
<b>Total Phosphorus</b>	SM Method 4500-P <a href="#">B + E or F</a>	Deleted: ,
<b>Total Solids, Fixed Solids, or Volatile Solids</b>	SM Method 2540 G	Deleted: -N
<b>Volatile Solids Reduction</b>	Appendix C, EPA/625/R-92/013	Deleted: ,
<b>Additional Volatile Solids Reduction for Anaerobically Digested Solids</b>	Appendix D (1), EPA/625/R-92/013	
<b>Additional Volatile Solids Reduction for Aerobically Digested Solids</b>	Appendix D (3), EPA/625/R-92/013	
<b>Specific Oxygen Update Rate (SOUR)</b>	SM Method 2710 B Appendix D (2), EPA/625/R-92/013	
<b>pH</b>	SW-846 Method <a href="#">9045D</a>	Deleted: 9045C
<b>TCLP</b>	SW-846 Method 1311	
<b>Paint Filter Test</b>	SW-846 Method <a href="#">9095B</a>	Deleted: 9095A
<p>Where:</p> <p>ASTM = “<i>Standard Practice for Recovery of Viruses From Wastewater Sludges</i>”, Annual Book of ASTM Standards: Section 11-Water and Environmental Technology, ASTM, 1916 Race Street, Philadelphia, PA 19103-1187.</p> <p>EPA/625/R-92/013 = “<i>Environmental Regulations and Technology, Control of Pathogens and Vector Attraction in Sewage Sludge (Including Domestic Septage) Under 40 CFR Part 503</i>”, U.S. Environmental Protection Agency, Office of Research and Development, National Risk Management Research Laboratory, Center for Environmental Research Information, Cincinnati, OH 45268.</p> <p><a href="#">EPA 1680 = USEPA. Method 1680: Fecal Coliforms in Sewage Sludge (Biosolids) by Multiple-Tube Fermentation Using Lauryl-Tryptose Broth (LTB) and EC Medium. US Environmental Protection Agency, Office of Water, Washington, DC EPA-821-R-06-012.</a></p> <p><a href="#">EPA 1681 = USEPA. Method 1681: Fecal Coliforms in Sewage Sludge (Biosolids) by Multiple-Tube Fermentation using A-1 Medium. U.S. Environmental Protection Agency, Office of Water, Washington, DC EPA-821-R-06-013.</a></p> <p><a href="#">EPA 1682 = USEPA. Method 1682: Salmonella in Sewage Sludge (Biosolids) by Modified Semisolid Rappaport-Vassiliadis (MSRV) Medium. U.S. Environmental Protection</a></p>		

SM = “Standard Methods for the Examination of Water and Wastewater”, American Public Health Association, 1015 15th Street NW, Washington, DC 20005.

SW-846 = “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, EPA publication SW-846. Available from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161.

### **WAC 173-308-150 FREQUENCY OF BIOSOLIDS MONITORING.**

- (1) The frequency of monitoring required by this section is based on the dry weight tonnage of bulk biosolids applied to the land per 365-day period or the dry weight tonnage of biosolids received per 365-day period by a person who prepares biosolids that are sold or given away for application to the land.
- (2) The person who prepares biosolids is responsible for ensuring that monitoring is carried out in accordance with the requirements of this chapter and any applicable permit.
- (3) The minimum frequency of monitoring listed below applies to the pollutants listed in Tables 1, 2, and 3 of WAC 173-308-160, the pathogen density requirements in WAC 173-308-170, and the vector attraction reduction requirements in WAC 173-308-180.

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Comment [DKT13]: Moved subsection (3) so that it is now subsection (1) in order to make it clear that the monitoring is required only when biosolids are applied or prepared for application.

#### **MINIMUM FREQUENCY OF MONITORING**

<b>Metric tons (U.S. tons) per 365-day period</b>	<b>Frequency</b>
Greater than zero but less than 290 (320)	once per year
Equal to or greater than 290 (320) but less than 1,500 (1,653)	once per quarter (4 times per year)
Equal to or greater than 1,500 (1,653) but less than 15,000 (16,535)	once per 60 days (6 times per year)
Equal to or greater than 15,000 (16,535)	once per month (12 times per year)

- (4) Treatment works treating domestic sewage that transfer biosolids or sewage sludge for further treatment to another facility are not required to monitor for pollutant concentrations, pathogen reduction, or vector attraction reduction unless specifically required to do so in a permit issued by the department.
- (5) After the biosolids have been monitored for 2 years at the frequency in this section, the person who prepares the biosolids may request the department to reduce the frequency of monitoring for pollutant concentrations. The frequency of monitoring must not be less than once per year when biosolids are applied to the land.

Deleted: <#>The frequency of monitoring required by this section is based on the dry weight tonnage of bulk biosolids applied to the land per 365-day period or the dry weight tonnage of biosolids received per 365-day period by a person who prepares biosolids that are sold or given away for application to the land.¶

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### **WAC 173-308-160 BIOSOLIDS POLLUTANT LIMITS.**

This section sets pollutant concentration limits and cumulative pollutant loading rate limits for biosolids that are applied to the land.

- (1) **Table 1.** Table 1 of this section sets the maximum allowable concentration (ceiling limit) of pollutants in biosolids that are applied to the land. Sewage sludge that contains any pollutant listed in Table 1 of this section at a concentration greater than the allowable ceiling limit is not biosolids, is a solid waste, and may not be applied to the land.
- (2) **Table 2.** Table 2 of this section sets the maximum quantities of pollutants that may be added to an area of land, also referred to as the cumulative pollutant loading rate. The cumulative pollutant loading rates in Table 2 apply when the concentration of any pollutant in biosolids that are applied to the land exceeds the allowable pollutant concentration limit in Table 3 of this section.

- (a) A person may not apply bulk biosolids subject to the cumulative pollutant loading rates in Table 2 of this section to a land application site, if any of those rates have been reached on the site.
- (b) Before bulk biosolids subject to the cumulative pollutant loading rates in Table 2 of this section are applied to the land, the person who proposes to apply the bulk biosolids must contact the local health jurisdiction and the department to determine whether bulk biosolids subject to the cumulative pollutant loading rates were applied to the site before the effective date of this chapter.
  - (i) If bulk biosolids subject to the cumulative pollutant loading rates in Table 2 of this section have been applied to the site since July 20, 1993, and the cumulative amount of each pollutant applied to the site since that date is known, in addition to any amount subtracted in (b)(iii) of this subsection, the amount previously applied must be subtracted from the cumulative pollutant loading rate for each pollutant, to determine the remaining amount of pollutant that may be applied to the site.
  - (ii) If bulk biosolids subject to the cumulative pollutant loading rates in Table 2 of this section have been applied to the site since July 20, 1993, and the cumulative amount of each pollutant applied to the site in the bulk biosolids since that date is not known, additional biosolids subject to the cumulative pollutant loading rates in Table 2 of this section may not be applied to the site.
  - (iii) If bulk biosolids were applied to the site prior to July 20, 1993, and the cumulative amount of each pollutant applied to the site prior to that date can be determined, in addition to any amount subtracted in (b)(i) of this subsection, the amount applied must be subtracted from the cumulative pollutant loading rate for each pollutant, to determine the remaining amount of pollutant that may be applied to the site.
  - (iv) If bulk biosolids subject to the cumulative pollutant loading rates in Table 2 of this section have not been applied to the site, the cumulative amount of each pollutant listed in Table 2 of this section may be applied to the site.
  - (v) Any person who applies bulk biosolids to the land, which are subject to the cumulative pollutant loading rates in Table 2 of this section, must provide written notice prior to the initial application of bulk biosolids to the land. Notice must be submitted to the department, and to any local health jurisdiction in whose jurisdiction the biosolids will be applied. The department and the local health jurisdiction must retain and provide access to the notice. The notice must include the following:
    - (A) The location of each site, either by street address, the latitude and longitude of the approximate center, or the section, township and range of each ¼ section, and a map(s) with the application area(s) clearly shown.
    - (B) The name, address, telephone number, and National Pollutant Discharge Elimination System (NPDES) or state waste discharge permit number and state biosolids permit number (if applicable) of the person who prepared the biosolids and also of the person who applies (if applicable) the bulk biosolids.
- (3) **Table 3.** Table 3 of this section sets a lower pollutant concentration threshold which, when achieved, relieves the person who prepares biosolids and the person who applies biosolids, from certain requirements related to recordkeeping, reporting, and labeling.

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**Comment [DKT14]:** The changes made to this subsection are for clarification purposes.

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**TABLE 1 - CEILING CONCENTRATION LIMITS**

POLLUTANT	CEILING CONCENTRATION milligrams per kilogram (dry weight basis)
Arsenic	75



Cadmium	85
Copper	4300
Lead	840
Mercury	57
Molybdenum	75
Nickel	420
Selenium	100
Zinc	7500

**TABLE 2 - CUMULATIVE POLLUTANT LOADING RATES**

POLLUTANT	CUMULATIVE POLLUTANT LOADING RATE kilograms per hectare (dry weight basis)
Arsenic	41
Cadmium	39
Copper	1500
Lead	300
Mercury	17
Nickel	420
Selenium	100
Zinc	2800

**TABLE 3 - POLLUTANT CONCENTRATION LIMITS**

POLLUTANT	LIMIT monthly average in milligrams per kilogram (dry weight basis)
Arsenic	41
Cadmium	39
Copper	1500
Lead	300
Mercury	17
Nickel	420
Selenium	100
Zinc	2800

**WAC 173-308-170 PATHOGEN REDUCTION.**

This section contains the requirements for biosolids to be classified either Class A or Class B with respect to pathogens.

The Class A pathogen reduction requirements must be met at the same time or before the vector attraction reduction requirements in WAC 173-308-180(1), (2), or (3).

**(1) Class A - Alternative 1: Time and Temperature.**

- (a) ***Fecal coliform or Salmonella sp. bacteria density.*** The density of fecal coliform in the biosolids must be less than 1000 Most Probable Number per gram of total solids (dry weight basis) or the density of *Salmonella* sp. bacteria in the biosolids must be less than 3 Most Probable Number per 4 grams of total solids (dry weight basis) at the time the biosolids are used, at the time the biosolids are prepared for sale or give away in a bag or other container for application to the land, or at the time the biosolids or material derived

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from biosolids is prepared to meet the requirements for exemption in WAC 173-308-200, and one of the requirements in (b) through (e) of this subsection must be met.

- (b) When the percent solids of the biosolids is 7 percent or higher, the temperature of the biosolids must be 50°C (122°F) or higher, the time period must be 20 minutes or longer, and the temperature and time period must be determined using equation (1), except when small particles of biosolids are heated by either warmed gases or an immiscible liquid.

**Equation (1)**

$$D = \frac{131,700,000}{10^{0.1400t}}$$

Where:

*D = time in days*

*t = temperature in degrees Celsius*

- (c) When the percent solids of the biosolids is 7 percent or higher and small particles of biosolids are heated by either warmed gases or an immiscible liquid, the temperature of the biosolids must be 50°C (122°F) or higher, the time period must be 15 seconds or longer, and the temperature and time period must be determined using equation (1).
- (d) When the percent solids of the biosolids is less than 7 percent and the time period is at least 15 seconds, but less than 30 minutes, the temperature and time period must be determined using equation (1).
- (e) When the percent solids of the biosolids is less than 7 percent, the temperature of the biosolids is 50°C (122°F) or higher, and the time period is 30 minutes or longer, the temperature and time period must be determined using equation (2).

**Equation (2)**

$$D = \frac{50,070,000}{10^{0.1400t}}$$

Where:

*D = time in days*

*t = temperature in degrees Celsius*

**(2) Class A - Alternative 2: pH, Time, Temperature, and Percent Solids.**

- (a) ***Fecal coliform or Salmonella sp. bacteria density.*** The density of fecal coliform in the biosolids must be less than 1000 Most Probable Number per gram of total solids (dry weight basis) or the density of *Salmonella* sp. bacteria in the biosolids must be less than 3 Most Probable Number per 4 grams of total solids (dry weight basis) at the time the biosolids are used, at the time the biosolids are prepared for sale or give away in a bag or other container for application to the land, or at the time the biosolids or material derived from biosolids is prepared to meet the requirements for exemption in WAC 173-308-200, and the requirements in (b) of this subsection must be met.
- (b) The pH of the biosolids that are used must be raised to above 12 and remain above 12 for 72 hours.
- (i) The temperature of the biosolids must be above 52°C (126°F) for 12 hours or longer during the period that the pH of the biosolids is above 12.

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- (ii) At the end of the 72-hour period during which the pH of the biosolids is above 12, the biosolids must be air dried to achieve a percent solids in the biosolids greater than 50 percent.

(3) **Class A - Alternative 3: Processes to Further Reduce Pathogens.**

(a) ***Fecal coliform or Salmonella sp. bacteria density.*** The density of fecal coliform in the biosolids must be less than 1000 Most Probable Number per gram of total solids (dry weight basis) or the density of *Salmonella* sp. bacteria in the biosolids must be less than 3 Most Probable Number per 4 grams of total solids (dry weight basis) at the time the biosolids are used, at the time the biosolids are prepared for sale or give away in a bag or other container for application to the land, or at the time the biosolids or material derived from biosolids is prepared to meet the requirements for exemption in WAC 173-308-200, and one of the requirements in (b)(i) through (vii) of this subsection must be met.

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(b) ***Processes to further reduce pathogens.*** The biosolids must be treated in one of the processes to further reduce pathogens described in this subsection.

(i) ***Composting.***

(A) Using either the within-vessel composting method or the static aerated pile composting method, the temperature of the biosolids must be maintained at 55°C (131°F) or higher for 3 days.

(B) Using the windrow composting method, the temperature of the biosolids must be maintained at 55°C (131°F) or higher for 15 days or longer. During the period when the compost is maintained at 55°C (131°F) or higher, there must be a minimum of 5 turnings of the windrow.

(ii) ***Heat drying.*** Biosolids must be dried by direct or indirect contact with hot gases to reduce the moisture content of the biosolids to 10 percent or less and one of the following requirements must be met.

(A) The temperature of the biosolids particles must exceed 80°C (176°F).

(B) The wet bulb temperature of the gas in contact with the biosolids as the biosolids leave the dryer must exceed 80°C (176°F).

(iii) ***Heat treatment.*** Liquid biosolids must be heated to a temperature of 180°C (356°F) or higher for 30 minutes.

(iv) ***Thermophilic aerobic digestion.*** Liquid biosolids must be agitated with air or oxygen to maintain aerobic conditions and the mean cell residence time of the biosolids must be at least 10 days at 55 to 60°C (131 to 140°F).

(v) ***Beta ray irradiation.*** Biosolids must be irradiated with beta rays from an accelerator at dosages of at least 1.0 megarad at room temperature (ca. 20°C [68° F]).

(vi) ***Gamma ray irradiation.*** Biosolids must be irradiated with gamma rays from certain isotopes, such as Cobalt 60 and Cesium 137, at room temperature (ca. 20°C [68° F]).

(vii) ***Pasteurization.*** The temperature of the biosolids must be maintained at 70°C (158°F) or higher for 30 minutes or longer.

(4) **Class A - Alternative 4: Equivalent Process to Further Reduce Pathogens.**

(a) ***Fecal coliform or Salmonella sp. bacteria density.*** The density of fecal coliform in the biosolids must be less than 1000 Most Probable Number per gram of total solids (dry weight basis) or the density of *Salmonella* sp. bacteria in the biosolids must be less than 3 Most Probable Number per 4 grams of total solids (dry weight basis) at the time the biosolids are used, at the time the biosolids are prepared for sale or give away in a bag or other container for application to the land, or at the time the biosolids or material derived

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from biosolids is prepared to meet the requirements for exemption in WAC 173-308-200, and the requirements in (b) of this subsection must be met.

- (b) The biosolids must be treated in a process that is equivalent to a process to further reduce pathogens. Pathogen equivalency for biosolids applied to land under jurisdiction of the state of Washington will be determined by the department or by the EPA with the approval and concurrence of the department.
- (5) **Class B - Alternative 1: Testing.** A minimum of 7 samples of the biosolids must be collected at the time the biosolids are used, and the geometric mean of the density of fecal coliform of the samples must be less than 2,000,000 Most Probable Number per gram of total solids (dry weight basis) or 2,000,000 Colony Forming Units per gram of total solids (dry weight basis).
- (6) **Class B - Alternative 2: Process to Significantly Reduce Pathogens.** The biosolids must be treated in one of the processes to significantly reduce pathogens described in (a) through (e) of this subsection.
  - (a) **Aerobic digestion.** The biosolids must be agitated with air or oxygen to maintain aerobic conditions for a specific mean cell residence time at a specific temperature. Values for the mean cell residence time and temperature must be between forty days at 20°C (68°F) and 60 days at 15°C (59°F).
  - (b) **Air drying.** The biosolids must be dried on sand beds or on paved or unpaved basins. The biosolids must dry for a minimum of 3 months. During 2 of the 3 months, the ambient average daily temperature must be above 0°C (32°F). During the air drying period, no additional material may be added.
  - (c) **Anaerobic digestion.** The biosolids must be treated in the absence of air for a specific mean cell residence time at a specific temperature. Values for the mean cell residence time and temperature must be between 15 days at 35 to 55°C (95 to 131°F) and 60 days at 20°C (68°F).
  - (d) **Composting.** Using the within-vessel, static aerated pile, or windrow composting methods, the temperature of the biosolids must be raised to 40°C (104°F) or higher and remain at 40°C (104°F) or higher for 5 days. For 4 hours during the 5 days, the temperature in the compost pile must exceed 55°C (131°F).
  - (e) **Lime stabilization.** Sufficient lime must be added to the biosolids to raise the pH of the biosolids to 12 after 2 hours of contact.
- (7) **Class B - Alternative 3: Equivalent Process to Significantly Reduce Pathogens.** The biosolids must be treated in a process that is equivalent to a process to significantly reduce pathogens. Pathogen equivalency for biosolids applied to land under jurisdiction of the state of Washington will be determined by the department or by the EPA with the approval and concurrence of the department.

## **WAC 173-308-180 VECTOR ATTRACTION REDUCTION.**

When vector attraction reduction is accomplished prior to application of biosolids to the land, the requirements in one of subsections (1) through (6) of this section must be met.

The vector attraction reduction requirements in subsection (1), (2), or (3) of this section must be met at the same time or after the Class A pathogen requirements in WAC 173-308-170.

- (1) **Alternative 1: Volatile Solids Reduction.** The mass of volatile solids in the biosolids must be reduced by a minimum of 38 percent.

- (a) **Bench-scale test for anaerobically-digested solids.** When the 38 percent volatile solids reduction requirement in this subsection cannot be met for anaerobically digested biosolids, vector attraction reduction can be demonstrated by digesting a portion of the previously digested biosolids anaerobically in the laboratory in a bench-scale unit for 40 additional days at a temperature between 30 and 37°C (86 and 98.6°F). After the 40-day period, the vector attraction reduction requirement is met if the volatile solids in the biosolids at the beginning of that period are reduced by less than 17 percent.
- (b) **Bench-scale test for aerobically-digested solids.** When the 38 percent volatile solids reduction requirement in this subsection cannot be met for aerobically digested biosolids, vector attraction reduction can be demonstrated by digesting a portion of the previously digested biosolids that has a percent solids of 2 percent or less aerobically in the laboratory in a bench-scale unit for 30 additional days at 20°C (68°F). After the 30-day period, the vector attraction reduction requirement is met if the volatile solids in the biosolids at the beginning of that period are reduced by less than 15 percent.
- (2) **Alternative 2: Specific Oxygen Uptake Rate (SOUR).** The specific oxygen uptake rate (SOUR) for biosolids treated in an aerobic process must be less than or equal to 1.5 milligrams of oxygen per hour per gram of total solids (dry weight basis) at a temperature of 20°C (68°F).
- (3) **Alternative 3: Aerobic Process.** The biosolids must be treated in an aerobic process for 14 days or longer. During that time, the temperature of the biosolids must be higher than 40°C (104°F) and the average temperature of the biosolids must be higher than 45°C (113°F).
- (4) **Alternative 4: pH Adjustment.** The pH of the biosolids must be raised to 12 or higher by alkali addition and, without the addition of more alkali, must remain at 12 or higher for 2 hours and then at 11.5 or higher for an additional 22 hours.
- (5) **Alternative 5: Percent Solids for Stabilized Solids.** For biosolids that do not contain unstabilized solids generated in a primary wastewater treatment process, the percent solids must be equal to or greater than 75 percent based on the moisture content and total solids prior to mixing with other materials.
- (6) **Alternative 6: Percent Solids for Unstabilized Solids.** For biosolids that contain unstabilized solids generated in a primary wastewater treatment process, the percent solids must be equal to or greater than 90 percent based on the moisture content and total solids prior to mixing with other materials.

**WAC 173-308-190                      PROTECTING WATERS OF THE STATE—  
AGRONOMIC RATE REQUIREMENT.**

- (1) Biosolids must be applied to the land in a manner approved by the department and at agronomic rates, except when approved by the department for land reclamation sites in accordance with subsection (3) of this section or for research purposes when approved by the department in accordance with WAC 173-308-192 or in a site specific land application plan developed under WAC 173-308-310(8).
- (2) Agronomic rate determinations must take into account nitrogen supplied from other sources such as manures, cover crops, and commercial fertilizers as well as biosolids.
- (3) Biosolids applied to land reclamation sites may be applied in excess of agronomic rates if approved by the department in a site specific land application plan developed under WAC 173-308-310(8).

Comment [DKT15]: The added language here is intended to correct an oversight which would have technically only allowed research that uses above agronomic rates at sites exempted under WAC 173-308-192. The department did not intend this limitation. The department wants to also allow agronomic rate research at permitted sites.

- (4) The person who prepares exceptional quality biosolids that are sold or given away to another person must provide sufficient information to allow the person who receives the biosolids to determine an agronomic rate of application.
- (5) The person who applies exceptional quality biosolids to the land is responsible for compliance with the agronomic rate requirement in this section.
- (6) When the potential for ground water contamination due to biosolids application exists, the department may require ground water monitoring or other conditions in accordance with the provisions of chapter 173-200 WAC. If it is determined that an enforcement criterion may be violated, an evaluation must be conducted to demonstrate compliance with the provisions of chapter 173-200 WAC.

**WAC 173-308-191 PROTECTION OF ENDANGERED OR THREATENED SPECIES.**

Biosolids may not be applied to the land if they are likely to adversely affect a threatened or endangered species or its critical habitat as listed under Title 232 WAC or section 4 of the Endangered Species Act.

**WAC 173-308-192 EXEMPTIONS FOR RESEARCH.**

For the purposes of furthering necessary research, the land application of nonexceptional quality biosolids is exempt from the agronomic rate requirements in WAC 173-308-190 or 173-308-270, the reporting requirements in WAC 173-308-295, and the permitting requirements in WAC 173-308-310 if all of the following requirements are met:

- (1) A research proposal must be submitted containing, at a minimum, the following:
  - (a) A description of the nature of the project, what may be learned, the anticipated benefits, provisions for progress reports, provisions for peer review, and provisions for providing a final report to the department.
  - (b) A discussion of any potential adverse impacts of application rates in excess of agronomic rates, along with potential mitigation or response to adverse effects if observed.
  - (c) An explanation for the sizing of the research plot(s) that will receive biosolids. Plot size must not exceed the minimum area required to support the goals of the research.
- (2) The generator of the biosolids must report the dry tons of biosolids land applied in the research project in their annual biosolids report required under WAC 173-308-295.
- (3) The department must approve, in writing, the research proposal required in subsection (1) of this section.
- (4) There must be no sustainable objections to the approval required in subsection (3) of this section from the EPA or the local health jurisdiction(s) in the county(s) where the biosolids will be managed.
- (5) All other applicable requirements of this chapter must be met.
- (6) All other local, state, and federal regulatory requirements must be met.

**WAC 173-308-193 MANAGEMENT AND EXEMPTIONS FOR SEPTAGE FROM COMPOSTING TOILETS.**

- (1) The residual solids from composting toilet systems (also known as “waterless toilets”) that receive only domestic waste are considered to be septage.

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Comment [DKT16]: The 10-acre limitation was deleted because the requirements for a research proposal already require that plot size does not exceed the minimum area required.

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Comment [DKT17]: This was added for clarification purposes.

Comment [DKT18]: This was added for clarification purposes.

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Comment [DKT19]: Revisions made to this section are for clarification purposes. Comments received suggested that the intent was unclear. The revisions were made to make the department’s intentions more clear.

(2) Septage from composting toilet systems must either be sent to a permitted facility for further treatment, or it must be managed in accordance with the requirements in WAC 173-308-270 and other applicable sections of this chapter.

(3) Unless a permit is otherwise required by the department, persons who land apply septage from composting toilet systems and sites where the septage is applied are exempt from the reporting requirements in WAC 173-308-295 and the permitting requirements in WAC 173-308-310.

(4) All other applicable requirements of this chapter must be met.

(5) All other local, state, and federal regulatory requirements must be met.

## WAC 173-308-200 EXEMPTIONS BASED ON THE EXCEPTIONAL QUALITY OF BIOSOLIDS.

The person who prepares and the person who applies biosolids that meet the exceptional quality standards are exempt from the following requirements:

- (1) The requirement in WAC 173-308-120(6) for obtaining prior written approval of the landowner.
- (2) The site management and access restrictions in WAC 173-308-210(5) except where, on a case-by-case basis, the director applies any or all restrictions after determining that the requirements are necessary to protect public health and the environment from any adverse effect that may occur from a pollutant in the bulk biosolids.
- (3) The recordkeeping and certification requirements in WAC 173-308-290(3).
- (4) The requirement in WAC 173-308-300(6)(c) for submittal of a land application plan when used as a component of intermediate or final cover at a municipal solid waste landfill.
- (5) The land application plan requirements of WAC 173-308-310(8), except as provided in WAC 173-308-310(8)(a)(ii) or (iii).

## WAC 173-308-205 SIGNIFICANTLY REMOVE MANUFACTURED INERTS.

- (1) Except for sewage sludge approved for long-term disposal in accordance with WAC 173-308-300(9), all biosolids (including septage) or sewage sludge must be treated by a process such as physical screening or another method to significantly remove manufactured inerts prior to final disposition. Meeting this requirement may occur at any point in the wastewater treatment or biosolids manufacturing process.
- (2) Options for meeting the requirement. Meeting the requirement in subsection (1) of this section can be accomplished by either of the following:
  - (a) Screening through a bar screen with a maximum aperture of 3/8 inch (0.95 cm).
  - (b) Obtaining approval from the department for an alternative method that achieves a removal rate similar to or greater than that achieved by the screening standard in (a) of this subsection.
- (3) Timing for meeting the requirement. The requirement in subsection (1) of this section must be met by July 1, 2012, or at the time of final disposition if the material will not be managed prior to July 1, 2012.
- (4) Regardless of the date that the requirement in subsection (1) of this section is met, biosolids (including septage) that are land applied or sold/given away in a bag or other container must contain less than 1 percent by volume recognizable manufactured inerts.

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Comment [DKT20]: The numerous changes made to this section are for clarification purposes and to in-part place in rule the policy that the department intended to develop regarding this issue. The changes also seek to provide facilities with a clearer and more objective standard and to simplify the section.

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Comment [DKT21]: A subsection (2) was added to provide facilities with some guidance on n ... [2]

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Comment [DKT22]: 2011 was changed to 2 ... [4]

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**BULK BIOSOLIDS APPLIED TO  
AGRICULTURAL LAND, FOREST LAND, A  
PUBLIC CONTACT SITE, OR A LAND  
RECLAMATION SITE.**

- (1) Bulk biosolids applied to agricultural land, forest land, a public contact site, or a land reclamation site must meet the requirements for a significant reduction in manufactured inerts in WAC 173-308-205.
- (2) **Pollutant concentrations.**
  - (a) The concentration of a pollutant in bulk biosolids that are applied to agricultural land, forest land, a public contact site, or a land reclamation site may not exceed the allowable ceiling limit in Table 1 of WAC 173-308-160.
  - (b) If the concentration of a pollutant in bulk biosolids that are applied to agricultural land, forest land, a public contact site, or a land reclamation site exceeds the pollutant concentration limits in Table 3 of WAC 173-308-160, then the total cumulative loading rate for each pollutant may not exceed the limit in Table 2 of WAC 173-308-160, and the requirements in WAC 173-308-160(2) must be met.
- (3) **Pathogens.** Bulk biosolids that are applied to agricultural land, forest land, a public contact site, or a land reclamation site must be Class A for pathogens, or they must be Class B for pathogens and the site management and access restrictions in subsection (5) of this section must be met.
- (4) **Vector attraction reduction.** Bulk biosolids that are applied to agricultural land, forest land, a public contact site, or a land reclamation site must meet one of the vector attraction reduction requirements in WAC 173-308-180(1) through (6) before they are applied to the land, or the requirements of (a) or (b) of this subsection must be met.
  - (a) **Injection.** The biosolids must be injected below the surface of the land, and the following requirements must be met, as applicable.
    - (i) No significant amount of the biosolids may be present on the land surface within 1 hour after the biosolids are injected.
    - (ii) When the biosolids are Class A for pathogens, the biosolids must be injected below the land surface within 8 hours after being discharged from the pathogen treatment process.
  - (b) **Incorporation.** Biosolids must be incorporated into the soil within 6 hours after application to the land. When biosolids that are incorporated into the soil are Class A with respect to pathogens, the biosolids must be applied to the land within 8 hours after being discharged from the pathogen treatment process.
- (5) **Site management and access restrictions.**
  - (a) **Class B biosolids.** The site management and access restrictions in (a) and (b) of this subsection are applicable to biosolids that are Class B for pathogens.
    - (i) Food crops, feed crops, and fiber crops must not be harvested for a minimum of 30 days after the last application of biosolids.
    - (ii) Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface must not be harvested for a minimum of 14 months after the last application of biosolids.
    - (iii) Food crops with harvested parts below the surface of the land must not be harvested for a minimum of 20 months after the last application of biosolids when the biosolids remain on the land surface for 4 months or longer prior to incorporation into the soil.



- (iv) Food crops with harvested parts below the surface of the land must not be harvested for 38 months after application of biosolids when the biosolids remain on the land surface for less than 4 months prior to incorporation into the soil.
- (v) Livestock must not be allowed to graze on the land for a minimum of 30 days after the last application of biosolids.
- (vi) Turf grown on land where biosolids are applied must not be harvested for a minimum of 1 year after the last application of the biosolids unless otherwise specified by the department.
- (vii) Public access to land with a high potential for public exposure must be restricted for a minimum of 1 year after the last application of biosolids.
- (viii) Public access to land with a low potential for public exposure must be restricted for a minimum of 30 days after the last application of biosolids.
- (ix) Biosolids must not be applied to the land within 100 feet (30.5 meters) of a well unless otherwise approved in a permit issued in accordance with the requirements of this chapter.
- (x) During the time when access is restricted, signs must be posted around the application site at all significant points of access and at least every ½ mile (805 meters) around the perimeter of the site. Unless the department has approved the substitution of “no trespassing” signs for informational signs, signs must contain at least the following:
  - (A) The name and address or phone number of the generator and if different, the person who applies.
  - (B) The names, addresses, and phone numbers of the regulatory and permitting authorities.
  - (C) The material that is being applied (biosolids or a more detailed description).
  - (D) Notice that access is restricted, and if desired, the date after which access is no longer restricted.
  - (E) If applicable, a notice on limitations regarding the harvest of edible plants from the site.

It is a violation of these rules for any person to remove a sign posted in accordance with the requirements of this subsection during the period when access is restricted.

- (b) ***Nonexceptional quality biosolids.*** The following site management restrictions are applicable to nonexceptional quality biosolids when they are applied to agricultural land, forest land, a public contact site, or a land reclamation site:
  - (i) Bulk biosolids may not be applied to land that is 33 feet (10 meters) or less from surface waters of the state, unless otherwise specified by the department.
  - (ii) 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 issued by the department or by EPA with the approval of the department.

**WAC 173-308-250      BULK BIOSOLIDS APPLIED TO A LAWN OR HOME GARDEN.**

- (1) Bulk biosolids applied to a lawn or home garden must meet the requirements for a significant reduction in manufactured inerts in WAC 173-308-205.
- (2) Bulk biosolids that are applied to a lawn or home garden must meet the exceptional quality standards.

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**WAC 173-308-260 BIOSOLIDS SOLD OR GIVEN AWAY IN A BAG OR OTHER CONTAINER.**

- (1) Biosolids sold or given away in a bag or other container must meet the requirements for a significant reduction in manufactured inerts in WAC 173-308-205.
- (2) Biosolids sold or given away in a bag or other container must meet the exceptional quality standards.
- (3) **Label or information sheet required.** Any person who prepares biosolids that are sold or given away in a bag or other container in the state of Washington, must comply with the requirements of this subsection when the biosolids product is prepared or derived from nonexceptional quality biosolids.
  - (a) A label must be affixed to the bag or other container in which biosolids are sold or given away, or an information sheet must be provided to the person who receives biosolids that are sold or given away in a bag or other container. The label or information sheet must contain the following information:
    - (i) The name, address, and phone number of the person who prepared the biosolids.
    - (ii) A statement or information indicating that the product complies with applicable regulations for biosolids or that the product has been prepared to meet standards that make it safe for its intended use when used in accordance with the directions provided by the manufacturer.
    - (iii) A statement or information that encourages proper use of the product and protection of public health and the environment. This may include information on product storage, hygiene, and protection of surface or ground water resources.
    - (iv) Agronomic rates for typical applications or guidance on how to determine the agronomic rate of application.
    - (v) A statement or information indicating that the product contains or is derived from biosolids.
    - (vi) Unless registered as a fertilizer by the Washington state department of agriculture, a disclaimer stating that the product is not a commercial fertilizer and that all nutrient claims are estimates or averages and not guaranteed.
  - (b) Any person who prepares biosolids that are sold or distributed outside the jurisdiction of the state of Washington must comply with the requirements in 40 CFR Part 503.14(e), as applicable.

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**WAC 173-308-270 SEPTAGE APPLIED TO THE LAND.**

This section contains the requirements for the land application of septage as defined in WAC 173-308-080.

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This section does not apply to “septage managed as biosolids originating from sewage sludge” as defined in WAC 173-308-080. Facilities who seek to manage their septage as biosolids must meet all of the requirements applicable to the particular classification of biosolids into which it falls.

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Comment [DKT24]: The changes to this paragraph are for clarification purposes.

- (1) Septage applied to the land must meet the requirements for a significant reduction in manufactured inerts in WAC 173-308-205.
- (2) Septage may not be applied to a public contact site, a lawn, or a home garden.
- (3) **Pathogen reduction and vector attraction reduction.**



(a) For loads of septage that are composed of at least 75 percent by volume of septage from households, one of the following requirements must be met:

- (i) The septage must be injected below the surface of the land and no significant amount of septage may be present on the land surface within 1 hour after the septage is injected.
- (ii) Septage must be incorporated into the soil within 6 hours after application to the land.
- (iii) The pH of the septage must be raised to 12 or higher and must remain at 12 or higher for a minimum of 30 minutes.
  - (A) A minimum of 2 tests for pH must be conducted for each load applied to the land.
  - (B) The first test must occur after a pH of 12 or higher has been attained.
  - (C) The second test must occur no less than 30 minutes after the first test to show that a pH of 12 or higher has been retained.
  - (D) If the pH has dropped below 12 when the second test is conducted, the stabilization process must be restarted.

**Comment [DKT25]:** The substitution of “from households” for “that has been in a tank for at least 2 years” in (a) of this subsection as well as in (b), below, was used to simplify the language. It is not a substantial change from the proposed rule, because in virtually all cases septage from households will have been in a tank for at least 2 years.

**Deleted:** that has been in a tank for at least 2 years

(b) For loads of septage not composed of at least 75 percent by volume of septage from households, the requirements in (a)(iii) of this subsection must be met.

(4) **Site management and access restrictions.** All of the following site management and access restrictions are applicable when septage is applied to the land:

- (a) Food crops, feed crops, and fiber crops must not be harvested for 30 days after the application of septage.
- (b) Food crops with harvested parts that touch the septage/soil mixture and are totally above the land surface must not be harvested for a minimum of 14 months after the last application of septage.
- (c) Food crops with harvested parts below the surface of the land must not be harvested for a minimum of 20 months after the last application of septage when the septage remains on the land surface for 4 months or longer prior to incorporation into the soil.
- (d) Food crops with harvested parts below the surface of the land must not be harvested for a minimum of 38 months after the last application of septage when the septage remains on the land surface for less than 4 months prior to incorporation into the soil.
- (e) Septage must not be applied to land that is 100 feet (30.5 meters) or less from surface waters of the state, unless otherwise specified by the department.
- (f) Septage must not be applied to the land so that it enters a wetland or waters of the state, unless approved in a permit issued by the department, or by EPA with the approval of the department.
- (g) Septage must not be applied to the land within 100 feet (30.5 meters) of a well unless approved in a permit issued by the department.
- (h) Domestic animals must not be allowed to graze on the land for a minimum of 30 days after the last application of septage.
- (i) Public access to land with a high potential for public exposure must be restricted for a minimum of 1 year after the last application of septage.
- (j) Public access to land with a low potential for public exposure must be restricted for a minimum of 30 days after the last application of septage.
- (k) During the time when access is restricted, signs must be posted around the application site at all significant points of access and at least every ½ mile (805 meters) around the perimeter of the site. Unless the department has approved the substitution of “no trespassing” signs for informational signs, signs must contain at least the following:

**Deleted:** that are composed of greater than 25 percent by volume of septage that has not been in a tank for at least 2 years

- (i) The name and address or phone number of the generator and if different, the person who applies.
- (ii) The names, addresses, and phone numbers of the regulatory and permitting authorities.
- (iii) The material that is being applied (septage or a more detailed description).
- (iv) Notice that access is restricted, and if desired, the date after which access is no longer restricted.
- (v) If applicable, a notice on limitations regarding the harvest of edible plants from the site.

Comment [DKT26]: Change needed for clarification.

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It is a violation of these rules for any person to remove a sign posted in accordance with the requirements of this subsection during the period when access is restricted.

**(5) Application rates.**

- (a) Septage that is applied to the land must be applied at a rate not exceeding the rate determined by equation (3).
- (b) At its discretion, the department may require the use of a different approach for calculating application rates based on the mixture ratios and site specific criteria, but at no time may the rate exceed that calculated by equation (3).

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**Equation (3)**

$$AAR = \frac{N}{0.0026}$$

Where:

AAR = Annual application rate in gallons per acre per 365-day period.

N = Amount of nitrogen in pounds per acre per 365-day period needed by the crop or vegetation grown on the land (subtract any nitrogen supplied by other sources—for example, commercial fertilizers or manures).

Comment [DKT27]: This text was added for clarification purposes.

- (6) **Spreader drive length.** To determine the distance (in feet) over which a load of liquid septage should be spread to meet the application rate, use equation (4).

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**Equation (4)**

$$\text{Drive length (in feet)} = \text{gallons in spreader} \div \text{spread width (in feet)} \times 43,560 \div AAR$$

Where:

AAR = Annual application rate in gallons per acre per 365-day period.

**(7) Monitoring.**

- (a) Samples of septage that are collected and analyzed must be representative of the septage that is applied to the land.
- (b) When septage is applied to the land and pH adjustment as described in subsection (3)(a)(iii) of this section is used to meet the pathogen and vector attraction reduction requirements, each container of septage that is applied to the land must be monitored to determine compliance with the pH requirements.

**WAC 173-308-280**

**REQUIREMENTS FOR FACILITIES STORING BIOSOLIDS OR SEWAGE SLUDGE.**

- (1) Facilities storing biosolids or sewage sludge under a local, state, or federal water pollution control permit or another environmental permit and facilities conducting temporary, small-scale storage as defined in WAC 173-308-080 are exempt from this section if the department determines that the standards in subsection (3) of this section are being met.
- (2) Facilities other than those in subsection (1) of this section storing biosolids or sewage sludge must do so in accordance with the provisions of a permit issued under this chapter.
- (3) Biosolids or sewage sludge may not be stored in a manner that would be likely to result in the contamination of ground water, surface water, air, or land under current conditions or in the case of fire or flood.
- (4) Facilities existing on July 1, 2007, storing liquid biosolids or sewage sludge in surface impoundments must meet the requirements for the design, construction, and operation of surface impoundments in chapter 173-304 WAC or the standards in chapter 173-350 WAC.
- (5) After July 1, 2007, new facilities proposing to store biosolids or sewage sludge in surface impoundments, facilities that are proposing a new surface impoundment, and facilities that are proposing to upgrade existing surface impoundments must meet the requirements for the design, construction, and operation of surface impoundments in chapter 173-350 WAC.

Comment [DKT28]: The added language is for clarification purposes. This was always the case, it just wasn't explicitly spelled-out.

### **WAC 173-308-290 RECORDKEEPING.**

The person who prepares biosolids or sewage sludge, the person who applies nonexceptional quality biosolids to the land, and the person who applies septage to the land must keep certain records and certification statements as described in this section.

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- (1) A responsible official as described in WAC 173-308-310(10) must sign all certification statements required under this section.
- (2) **Preparers of biosolids or sewage sludge.** The person who prepares biosolids or sewage sludge must keep the following records, as applicable, and certification statement for 5 years:
  - (a) The amount applied by the preparer/preparer's agent to agricultural land.
  - (b) The amount applied by the preparer/preparer's agent to forest land.
  - (c) The amount applied by the preparer/preparer's agent to a public contact site.
  - (d) The amount applied by the preparer/preparer's agent to a land reclamation site.
  - (e) The amount applied by the preparer/preparer's agent to a lawn or home garden.
  - (f) The amount sold or given away by the preparer in a bag or other container.
  - (g) The amount sold or given away by the preparer in bulk form (does not include that provided to the preparer's agent).
  - (h) The amount in a compost or blended biosolids product sold or given away by the preparer.
  - (i) The amount sent to a municipal solid waste landfill for disposal and the name of the landfill.
  - (j) The amount stored onsite.
  - (k) The amount transferred to another facility for further treatment and the name of the other treatment facility.
  - (l) The amount received from another facility and the name of the other facility.
  - (m) The amount transferred for incineration and the name of the incineration facility.
  - (n) Laboratory analysis data showing that the pollutant ceiling concentrations in WAC 173-308-160 Table 1 were met.

- (o) Laboratory analysis data showing that the pollutant concentrations in WAC 173-308-160 Table 3 were met.
- (p) Process monitoring and/or laboratory analysis data showing that the pathogen reduction requirements in WAC 173-308-170 were met and a description of how the requirements were met.
- (q) If the vector attraction reduction requirements in WAC 173-308-180 were met, process monitoring and/or laboratory analysis data and a description of how the requirements were met.
- (r) Laboratory analysis data showing the nitrogen concentration.

**CERTIFICATION STATEMENT:**

“I certify, under penalty of law, that the following were met (check boxes, as applicable):

- The pollutant ceiling concentration limits in WAC 173-308-160 Table 1.
- The pollutant concentration limits in WAC 173-308-160 Table 3.
- The Class A pathogen reduction requirements in WAC 173-308-170:  (1),  (2),  (3),  (4).
- The Class B pathogen reduction requirements in WAC 173-308-170:  (5),  (6),  (7).
- The vector attraction reduction requirements in WAC 173-308-180:  (1),  (2),  (3),  (4),  (5),  (6).

This determination was made under my direction and supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that pathogen reduction requirements, vector attraction reduction requirements, and pollutant concentration limits have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.”

Signature \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_

(3) **Apppliers of nonexceptional quality biosolids.** The person who applies nonexceptional quality biosolids must keep the following records, as applicable, and certification statement for 5 years or indefinitely where stated.

- (a) The location of each site, either by street address, the latitude and longitude of the approximate center, or the section, township and range of each ¼ section, and a map(s) with the application area(s) clearly shown.
- (b) The number of acres in each site on which biosolids were applied.
- (c) The date biosolids were applied to each site.
- (d) The targeted vegetation grown on each site and its **nitrogen** requirement.
- (e) The rate, in dry tons per acre per year, at which biosolids are applied to each site.
- (f) The amount, in dry tons, of biosolids applied to each site.
- (g) In addition, when biosolids with pollutants exceeding the WAC 173-308-160 Table 3 concentrations are applied, the following records must be kept indefinitely:
  - (i) The cumulative amount of each pollutant listed in WAC 173-308-160 Table 2 in the biosolids applied to each site.
  - (ii) A description of how the requirement to obtain information under WAC 173-308-160(2)(b) was met.
- (h) If the biosolids were Class B for pathogens, a description of how the site management and access restrictions in WAC 173-308-210(5)(a) were met.

**Comment [DKT29]:** The revisions made to (a) of this subsection and to (d) of subsection (4) below are for clarification purposes.

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**Comment [DKT30]:** “Annual was removed because some systems that receive biosolids (forests, rangeland) may not have an “annual” N requirement. However, “annual” was not removed from subsection (4)(g), below, because septage rates are defined by the annual nitrogen requirement of the vegetation per the federal biosolids rule.

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- (i) If the vector attraction reduction requirements were not met prior to application, a description of how requirements in WAC 173-308-210(5)(b) were met.

**CERTIFICATION STATEMENT:**

“I certify, under penalty of law, that the following were met (check boxes, as applicable):

- The requirement to obtain information under WAC 173-308-160(2)(b) (required if any of the pollutant concentrations exceed those in WAC 173-308-160 Table 3).
- The vector attraction reduction requirement in  WAC 173-308-210(4):  (a) or  (b) (required if the vector attraction reduction requirements were not met prior to application).
- The site management and access restrictions in WAC 173-308-210(5):  (a) and/or  (b).

This determination was made under my direction and supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the requirements to obtain information have been met, the site management and access restrictions have been met, and the vector attraction reduction requirements have been met. I am aware that there are significant penalties for false certification including fine and imprisonment.”

Signature \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_

(4) **Preparers or appliers of septage.** The person who prepares or applies septage to the land must keep the following records, as applicable, and certification statement for 5 years:

- (a) The total number of gallons of septage managed.
- (b) The total number of gallons of septage land applied.
- (c) The number of gallons of septage managed in any manner other than land application (e.g., transfer to another facility).
- (d) The location of each site, either by street address, the latitude and longitude of the approximate center, or the section, township, and range of each ¼ section, and a map(s) with the application area(s) clearly shown.
- (e) The number of acres in each site on which septage is applied.
- (f) The date septage is applied to each site.
- (g) The targeted vegetation grown on each site and its annual nitrogen requirement.
- (h) The rate, in gallons per acre per year, at which septage is applied to each site.
- (i) The number of gallons of septage applied to each site.
- (j) The source of the septage, including the name and address of the individual or business where the septage was generated, or, in the case of a centralized septage treatment facility, the name of the person or business who delivered the septage, the dates of delivery, and how much septage was delivered.
- (k) A description of how the pathogen and vector attraction reduction requirements in WAC 173-308-270(3) were met.
- (l) If pH stabilization was used to meet the pathogen and vector attraction reduction requirements in WAC 173-308-270(3)(a)(iii), pH measurements for each load.
- (m) A description of how the applicable site management and access restriction requirements in WAC 173-308-270(4) were met.

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- Deleted:** or the latitude and longitude of the approximate center of each land application site, and the section, township and range of each quarter section on which septage is applied

**CERTIFICATION STATEMENT:**

“I certify, under penalty of law, that the following were met (check boxes, as applicable):

The pathogen and vector attraction reduction requirements in WAC 173-308-270(3):  (a)(i),

(a)(ii), or  (a)(iii).

The site management and access restriction requirements in  WAC 173-308-270(4).

This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen and vector attraction reduction requirements and site management and access restrictions have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.”

Signature \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_

### **WAC 173-308-295 ANNUAL REPORTS.**

- (1) All treatment works treating domestic sewage subject to this chapter must submit to the department by March 1 of each year, an annual report on a form provided by the department.
- (2) All requested information that is required under this chapter or an applicable permit must be submitted.

### **WAC 173-308-300 DISPOSAL OF SEWAGE SLUDGE IN MUNICIPAL SOLID WASTE LANDFILL UNITS AND USE OF BIOSOLIDS IN MUNICIPAL SOLID WASTE LANDFILL OPERATIONS.**

- (1) When biosolids are placed in a municipal solid waste landfill unit they are considered solid waste (sewage sludge).
- (2) Any landfill accepting sewage sludge for disposal must be in compliance with the requirements of chapter 173-351 WAC and 40 CFR Part 258.
- (3) Sewage sludge that is disposed in a municipal solid waste landfill must meet the liquids in landfills restrictions of chapter 173-351 WAC.
- (4) Sewage sludge that is disposed in a municipal solid waste landfill must not be hazardous waste as defined in chapter 173-303 WAC or 40 CFR Part 261.
- (5) **Daily cover.** The use of sewage sludge as daily cover or as an amendment to daily cover is not a beneficial use and is considered disposal.
- (6) **Intermediate or final cover.** The use of biosolids as a component of landfill intermediate or final cover is considered a beneficial use if the following conditions are met:
  - (a) The use is consistent with an approved landfill plan of operations or closure/post-closure plan.
  - (b) The biosolids are used for the purposes of establishing a vegetative cover.
  - (c) If the biosolids are nonexceptional quality, the department has approved a site specific land application plan that meets the requirements of WAC 173-308-310(8). For the purposes of this subsection, a site specific land application plan may recognize an approved plan of operations or closure/post-closure plan that addresses the substantive requirements of WAC 173-308-310(8).
- (7) **Disposal on an emergency basis.**
  - (a) Facilities wishing to dispose of sewage sludge in a municipal solid waste landfill on an emergency basis must meet the conditions of this subsection and those in chapter 173-351 WAC.
  - (b) The person proposing to dispose of sewage sludge must obtain a written determination from the local health jurisdiction where the sewage sludge is proposed for disposal that a

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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.

- (c) Upon making the determination in (b) of this subsection, the local health jurisdiction must notify the department in writing of its findings and the basis for its determination. In its notification, the local health jurisdiction must state the date on which disposal is approved to commence, any conditions, and the date after which disposal is prohibited.

**(8) Disposal on a temporary basis.**

- (a) Any person wishing to dispose of sewage sludge in a municipal solid waste landfill on a temporary basis must submit a plan for approval to the department. The plan must include the following information:
  - (i) The conditions that make disposal necessary.
  - (ii) 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.
  - (iii) A time table for implementing the steps to be taken to correct the conditions that make disposal necessary.
- (b) The person proposing to dispose must provide the department with written approval for disposal from the local health jurisdiction in the receiving jurisdiction.

**(9) Disposal on a long-term basis.**

- (a) Any person wishing to dispose of sewage sludge in a municipal solid waste landfill on a long-term basis must have authorization to do so in a valid NPDES or state waste discharge permit issued under chapter 90.48 RCW or a permit issued under this chapter, and the person must submit for approval to the department an evaluation of the various management options that demonstrates to the satisfaction of the department that options for beneficial use are economically infeasible.
- (b) The person proposing to dispose must provide the department with written approval for disposal from the local health jurisdiction in the receiving jurisdiction.

**WAC 173-308-310 PERMITTING.**

- (1) **Applicable facilities - Application required.** All treatment works treating domestic sewage are applicable facilities, and must apply for a permit for the final use or disposal of biosolids or sewage sludge except for certain composting toilet systems described in WAC 173-308-193 and certain composting facilities described in (a) of this subsection.
  - (a) **Permitting exemption for some composting facilities.** Facilities that compost biosolids or sewage sludge do not require permitting under this chapter if all of the following conditions are met:
    - (i) A permit is not otherwise required in order to comply with the Federal Clean Water Act.
    - (ii) The department and local health jurisdiction agree that a permit issued by the local health jurisdiction will be adequate.
    - (iii) The conditions of the permit issued by the local health jurisdiction meet or exceed the requirements of this chapter.
    - (iv) The department does not otherwise find that a state-issued permit is necessary because one or more of the conditions in (b)(i) through (iv) of this subsection exists.
  - (b) **Designation as a treatment works treating domestic sewage.** In addition to facilities meeting the definition of a treatment works treating domestic sewage in WAC 173-308-

080, the department may designate any person, site, or facility that treats, uses, transports, stores, or applies biosolids, as a treatment works treating domestic sewage, and require the owner or operator to apply for a permit if any of the following conditions are met:

- (i) The department determines that a permit is necessary to protect human health or the environment from the adverse effect of a pollutant in the biosolids.
  - (ii) The department determines that a permit is necessary to protect human health or the environment from poor biosolids management practices.
  - (iii) The department determines that a permit is necessary to ensure compliance with any of the requirements in this chapter.
  - (iv) Bulk biosolids or sewage sludge originating from a source or location outside the jurisdiction of the state of Washington are being applied to the land or received at any site or facility.
- (c) It is a violation of this chapter for a facility to fail to submit a permit application to the department as required by these rules.
- (2) **General and individual permits.** The department will issue permits for the treatment and final use or disposal of biosolids or sewage sludge.
- (a) The department will issue, modify, revoke and reissue, and terminate general permits in accordance with the provisions of Appendix 5.
  - (b) The department will accept and consider applications for coverage under a general permit, modify conditions of coverage, revoke and reissue coverage, or terminate coverage under a general permit in accordance with the provisions of this section.
  - (c) The department will issue, modify, revoke and reissue, or terminate individual permits in accordance with the provisions of this section.
- (3) **Requirements to apply for coverage under a general permit or to request an individual permit.**
- (a) After the department has issued a general permit for the final use or disposal of biosolids or sewage sludge, all applicable facilities must apply for coverage under the general permit in accordance with subsection (4) of this section unless any of the following apply:
    - (i) The facility has a current individual permit issued under this chapter.
    - (ii) The department requires a facility to apply for an individual permit.
    - (iii) On written request of the applicant, the department has granted permission to apply for an individual permit.
      - (A) A facility may request an individual permit if a practice it proposes is not addressed in a general permit issued by the department.
      - (B) A facility may seek coverage under a general permit for any portion of its biosolids or sewage sludge management practices that are applicable under the general permit and may also request an individual permit for any portion of its biosolids or sewage sludge management practices that are not applicable under the general permit.
    - (iv) The department may require any facility applying for an individual permit under (a)(iii) of this subsection to limit its practices for the final use or disposal of biosolids or sewage sludge to those that are authorized in a general permit and to apply for coverage under a general permit.



(b) The department may notify a facility that it is covered by a general permit, even if the facility has not submitted a permit application as required under subsection (4) of this section.

(i) A facility so notified may request an individual permit in accordance with the provisions of (a)(iii) of this subsection.

(ii) Facilities that are notified of coverage under this subsection must submit a permit application as directed by the department.

**(4) Timing of permit applications.**

(a) ***Existing facilities seeking coverage under a general permit.*** Existing facilities seeking coverage under a general permit must submit an application for coverage within 90 days after issuance of the applicable general permit by the department. However, on a case-by-case basis the department's regional biosolids coordinator may grant an extension up to a maximum of 180 days after issuance of the applicable general permit. Requests for an extension must be made in accordance with the following:

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(i) Requests must be made in writing to the applicable regional biosolids coordinator.

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(ii) Requests must be made within 90 days after issuance of the applicable general permit.

Comment [DKT31]: The added text was included for clarification purposes by providing the department's expectations for requests for extensions.

(b) ***Existing facilities requesting an individual permit.*** Existing facilities that wish to request an individual permit under subsection (3)(a)(iii) of this section must do so within 30 days of issuance of an applicable general permit by the department.

(c) ***Facilities required or approved to apply for an individual permit.*** Facilities that have been directed by the department to apply for an individual permit under subsection (3)(a)(ii) of this section or approved to apply for an individual permit requested under subsection (3)(a)(iii) of this section must submit a permit application within 90 days of receiving notification.

(d) ***Facilities that have been denied an individual permit.*** Facilities that are denied an individual permit must submit an application for coverage under a general permit within 60 days after being denied an individual permit.

(e) ***New facilities.*** New facilities being proposed after July 1, 2007, must submit an application for coverage under an applicable general permit or a request for an individual permit at least 180 days prior to engaging in applicable management activities.

**(5) Timing of notices of intent - continuing coverage.**

(a) All facilities permitted under this section must submit a notice of intent to continue coverage under a general permit or an application for a new individual permit, at least 180 days prior to the expiration date of their applicable permit.

(b) When a facility has submitted a timely and sufficient notice of intent or application as required in this subsection, an expiring permit remains in effect and enforceable until any of the following occur:

(i) The application has been denied.

(ii) A replacement permit has been issued by the department.

(iii) The department has cancelled the expired permit.

(c) Coverage under a permit for permittees who fail to submit a timely and sufficient application or notice of intent shall cease on the expiration date of the permit.

**(6) Permit application contents.** All facilities must submit a complete and factually correct permit application in accordance with the schedule established in WAC 173-308-310(4) on a form or in a format specified by the department. The content requirements are listed in Appendix 1.

- (7) **Notices of intent contents.** Facilities submitting a notice of intent to be covered under an applicable general permit must do so on a form provided by the department. The content requirements are listed in Appendix 2.
- (8) **Land application plans.**
- (a) ***Exemptions for exceptional quality biosolids.*** Land application plans are not required when exceptional quality biosolids are applied to the land, except as specified in this subsection.
- (i) Any person who prepares exceptional quality biosolids for application to the land must determine and assure to the extent practicable, through recordkeeping and other means, that all applicable criteria of this chapter and any applicable permit are met when bulk exceptional quality biosolids are applied to the land.
- (ii) Any person who prepares exceptional quality biosolids for application to the land and who fails to satisfy the requirements in (a)(i) of this subsection, may be required to submit a general or site specific land application plan, or both, for any or all sites where bulk exceptional quality biosolids are applied to the land, and may also be required to comply with the public notice requirements in subsection (13) of this section.
- (iii) The department may require a site specific land application plan for any site where bulk exceptional quality biosolids are proposed to be applied if the plan is necessary to evaluate potential permit conditions or if the department finds there would be a strong benefit to the public from the preparation of a site specific land application plan.
- (iv) The department may require advance notice prior to the application of bulk exceptional quality biosolids to the land. In such case the department will notify the facility in writing of the conditions requiring advance notice, the length of advance notice required, and the length of time the requirement for advance notice will remain in effect.
- (b) ***Nonexceptional quality biosolids.*** Land application plans are required when nonexceptional quality biosolids are applied to the land except when biosolids are delivered to a beneficial use facility as provided in (g) of this subsection. Facilities that propose to apply nonexceptional quality biosolids to the land must do one or both of the following:
- (i) Submit with their permit application a site specific land application plan for each site where biosolids will be applied during the life of the permit.
- (ii) Submit with their permit application a general land application plan, and at a later date prior to applying biosolids, a site specific land application plan for each site where biosolids will be applied to the land.
- (c) Any site specific land application plans must be consistent with a facility's general land application plan, if a general land application plan has been submitted.
- (d) ***Site specific land application plan contents.*** Each site specific land application plan must provide information necessary to determine if the site is appropriate for land application of biosolids, and a description of how the site will be managed. The minimum content for site specific land application plans is listed in Appendix 3.
- (e) ***General land application plan contents.*** Applicants intending to apply nonexceptional quality biosolids to sites for which a site specific land application plan is not submitted as a part of the permit application, must submit for approval as a part of their permit

application a general land application plan. The minimum content for general land application plans is listed in Appendix 4.

- (f) As individual sites are identified in accordance with the general land application plan in (e) of this subsection, facilities that seek to apply nonexceptional quality biosolids must develop and submit site specific land application plans in accordance with (d) of this subsection.
- (g) **Exemptions when sending biosolids to a permitted beneficial use facility.** When biosolids are provided to a beneficial use facility that has been permitted as a treatment works treating domestic sewage, the person who prepares the biosolids is not required to prepare land application plans for the biosolids that will be applied to the beneficial use facility if all of the following conditions are met:
  - (i) The beneficial use facility's permit allows it to accept biosolids from the person who prepares biosolids.
  - (ii) As a part of the permit application or public notice, the person who prepares the biosolids identifies the beneficial use facility(ies) to which biosolids may be provided or specifies the criteria by which beneficial use facilities may be selected at a future date or states or indicates that it maintains the option to send its biosolids or sewage sludge to any facility permitted by the department to accept it for management.
- (h) All land application plans, including those authorized under provisional approval in accordance with subsection (18)(a) of this section, are subject to review and final approval by the department. If a land application plan is found to be insufficient, the department may either request additional information or may impose additional requirements as a condition of approval in accordance with subsection (19) of this section.

**(9) Submitting permit applications and notices of intent.** Facilities must submit their permit application and notice of intent as follows:

- (a) The original, in hardcopy form, to the biosolids coordinator in the regional office of the department where the facility is located.
- (b) One copy, in either electronic or hardcopy form, to any other regional office of the department where the facility's biosolids or sewage sludge will be treated, stored, disposed, or applied to the land. The department encourages submittal in electronic form.
- (c) One copy, in either electronic or hardcopy form, to the biosolids coordinator at the department's headquarters office. The department encourages submittal in electronic form.
- (d) One copy, in either electronic or hardcopy form, to the local health jurisdiction in each county where biosolids or sewage sludge will be treated, stored, disposed, or applied to the land. The department encourages submittal in electronic form.

Local health jurisdictions that elect not to receive copies of notices of intent or permit applications may notify in writing the facility or the department that they do not wish to receive copies.

**(10) Signatories to permit applications and reports.**

- (a) **Applications.** All permit applications must be signed as follows:
  - (i) *For a corporation.* By a responsible corporate officer. For the purpose of this section, a responsible corporate officer means either of the following:

**Comment [DKT32]:** The changes to this subsection are for clarification purposes and to encourage the electronic submittal of any required copies of documents.

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- (A) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy-making or decision-making functions for the corporation.
  - (B) The manager of one or more manufacturing, production, or operating facilities employing more than two hundred fifty persons or having gross annual sales or expenditures exceeding \$25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
- (ii) *For a partnership or sole proprietorship.* By a general partner or the proprietor, respectively.
  - (iii) *For a municipality, state, federal, or other public agency.* By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a federal agency includes either of the following:
    - (A) The chief executive officer of the agency.
    - (B) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.
- (b) **Reports and other information.** All reports and other information required by permits, and other information requested by the department must be signed by a person described in (a) of this subsection, or by a duly authorized representative of that person. A person is a duly authorized representative only if the following conditions are met:
    - (i) The authorization is submitted to the department in writing by a person described in (a) of this subsection.
    - (ii) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters.
  - (c) **Changes to authorization.** If an authorization under (b) of this subsection is no longer accurate, a new authorization satisfying the requirements of (b) of this subsection must be submitted to the department prior to or together with any reports or other information.
  - (d) **Certification.** Any person signing a document under (a) or (b) of this subsection must make the following certification, unless a different certification is applicable under another related section of this chapter:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

- (11) **Public access to information.** In accordance with chapter 42.17 RCW, the department must provide, upon request, any information submitted as part of a permit application, except as provided in (a) of this subsection.
  - (a) In accordance with chapters 42.17, 43.21A, 70.105, and 90.52 RCW, the department must protect any information (other than information on the quality of biosolids) contained in applications as confidential upon a showing by any person that the information, if made public, would divulge methods or processes entitled to protection as trade secrets of the person.

- (b) Any information accorded confidential status, whether or not contained in any application form, must be disclosed, upon request, to the Regional Administrator of EPA.
- (12) **Recordkeeping required for permit applications.** Applicants must keep records of all information used to complete permit applications and any supplemental information submitted for a period of 5 years, or longer, if otherwise required by this chapter, the conditions of the applicable permit, or other state or local laws.
- (13) **Public notice and comment period.** Public notices and comment periods must minimally meet the requirements listed in this subsection.
- (a) **Applying for coverage under a general permit initially, proposing a significant change, or reapplying following revocation.** All facilities applying for coverage under a general permit initially, facilities who propose a significant change in biosolids management practices, and those who reapply for a permit following revocation of their permit must issue public notice in the following manner:
- (i) Issue one notice in a newspaper of general circulation in any county(ies) where you prepare biosolids or sewage sludge.
  - (ii) Issue one notice in a newspaper of general circulation in any county(ies) covered by a general land application you have submitted.
  - (iii) Issue one notice in a newspaper of general circulation in any county(ies) where you land apply nonexceptional quality biosolids except where this notice has been conducted by a permitted biosolids beneficial use facility.
  - (iv) Post notices at any site(s) where you plan to land apply nonexceptional quality biosolids except where this notice has been conducted by a permitted biosolids beneficial use facility. The site(s) must remain posted during the entire public comment period required in (a)(v) of this subsection.
  - (v) Provide a 30-day public comment period following the issuance of newspaper notice and the posting of site(s).
- (b) **Applying for renewal of coverage under a general permit with no land application of nonexceptional quality biosolids.** All facilities applying for renewal of coverage under a general permit who have previously met the public notice requirements of (a) of this subsection and who do not land apply nonexceptional quality biosolids are not required to conduct additional public notice.
- (c) **Applying for renewal of coverage under a general permit with land application of nonexceptional quality biosolids.** All facilities applying for renewal of coverage under a general permit who have previously met the public notice requirements of (a) of this subsection and who land apply nonexceptional quality biosolids must conduct public notice in accordance with (a)(iii) and (v) of this subsection.
- (d) **Applying for an individual permit.** Facilities applying for individual permits must conduct public notice in accordance with (a)(i) through (v) of this subsection at the time they apply for a permit and at the time when a draft permit is provided for formal review by the department.
- (e) **Notice when adding a new site in accordance with a general land application plan.** All facilities who are proposing to add a new site or expand an existing site for the land application of nonexceptional quality biosolids in accordance with an approved general land application plan and who previously met the public notice requirements of (a) of this subsection must conduct public notice at the proposed new site or expanded area of an existing site in accordance with (a)(iv) and (v) of this subsection.

Comment [DKT33]: "L and" was added here and in (c), below, for clarification purposes.

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- (f) All facilities not captured under one of the descriptions in (a) through (e) of this subsection must conduct public notice as directed by the department.
- (g) **Notice contents.** All notices issued in accordance with this subsection must contain at least the following:
- (i) The name and address of the facility and the name of the contact person for the facility.
  - (ii) The name and address of the department of ecology person responsible for the permit.
  - (iii) The name and address of the local health jurisdiction person responsible for the permit if the local health jurisdiction has been delegated this responsibility.
  - (iv) A description of the proposal.
    - (A) Proposals for coverage under a general permit must cite the name of the general permit.
    - (B) Proposals for land application plans must contain information on the location of the proposed land application sites and, if applicable, the source(s) of biosolids that may be applied.
    - (C) Proposals for general land application plans must provide information on how the public will be notified when specific sites are identified.
  - (v) A brief statement describing the applicant’s biosolids or sewage sludge management practices.
  - (vi) A statement describing an interested person’s opportunity to comment or request a public hearing or meeting on the proposal, including the last date for comments or requests and the contact person to whom comments or requests must be directed.
    - (A) The period for comments and requests must be at least 30 days following the posting.
    - (B) Comments and requests should be directed to the responsible department of ecology contact or the responsible local health jurisdiction contact if the authority is delegated.
    - (C) The following is an example: “*Any person wishing to comment on this proposal or wishing to request a public hearing or meeting must do so in writing within 30 days of this notice. Comments should be addressed to (insert either ‘the department of ecology contact listed’ or ‘the local health jurisdiction contact listed’).*”
  - (vii) The statement, “*If you wish to be included on an interested parties list to receive notification of activities relating to this project, please notify, in writing, the (insert facility name) contact listed. (Insert facility name) will provide written confirmation by certified mail, return receipt requested, to each interested person or organization that their name has been placed on the list.*”
  - (viii) Any additional information considered necessary or proper.
- (h) **Notice to interested parties.** Notices must be sent to all persons on a facility’s interested parties list at the same time or before notice is run in a newspaper or posted at a land application site.
- (i) **Notices at land application sites.** Notices at land application sites must be posted at all significant site access points and at least every ½ mile (805 meters) around the perimeter of the site.

Comment [DKT34]: Added for clarification purposes.



- (j) Following the completion of public notice and comment period requirements, the facility must provide written documentation to the department certifying completion of the process in accordance with the following:
  - (i) When newspaper notice has been conducted, either an *Affidavit of Publication* must be submitted or a copy of the newspaper notice that shows the date of publication must be submitted.
  - (ii) When site posting has been conducted, a copy of the final notice posted and a brief description describing how site posting and notification was conducted.
- (k) Notice must be given by any other method required by the department.
- (14) **Public hearings and meetings.**
  - (a) The department may require an applicant to hold a public hearing or meeting when applying for a permit or for any land application plan if it finds, on the basis of requests, a significant degree of public interest or if it determines that a public discussion might clarify one or more aspects important to compliance with the requirements of this chapter or an applicable permit.
  - (b) During the public comment period provided for in subsection (13) of this section, any person may request the department to require a public hearing or meeting if none has been scheduled. Any request for a public hearing or meeting must be in writing and must state the nature of the issues proposed to be raised. The department will consider all requests that are received not later than the final comment date specified in the notice required under subsection (13) of this section.
  - (c) **Notice of a hearing.** If the department determines that a public hearing must be held, the applicant must give notice of a public hearing in accordance with the procedures in subsection (13) of this section, except that posting of sites that are not specifically subject to the hearing is not required.
    - (i) The notice of hearing must contain the following information:
      - (A) The dates of previous public notices relating to the permit application.
      - (B) The date, time, and place of the hearing.
      - (C) A brief description of the nature and purpose of the hearing, including any rules and procedures that apply.
    - (ii) Copies of the notice and an explanation of all places where and when the notice was published must be submitted to:
      - (A) The contact person in the regional or headquarters office of the department that has lead responsibility for the permit.
      - (B) Any applicable local health jurisdiction that has accepted delegation of authority for conducting public hearings.
  - (d) Public hearings required under this subsection, must be held in each county where biosolids will be treated or applied to the land, unless otherwise allowed by the department.
  - (e) Public hearings required under this subsection must be held no sooner than 30 days after the publication of the notice required in (c) of this subsection and at a time and place as can be reasonably expected to be convenient to the department and interested parties.
  - (f) Public hearings must be attended by a representative of the permit applicant who is authorized to respond to questions from the public and the department and by a representative of the department.

- (g) **Notice of a meeting.** Requirements for notice conducted for public meetings are the same as that required for public hearings unless otherwise allowed by the department.
- (15) **Record and response to comments received on an application or during a public hearing or meeting.**
- (a) The department will maintain a record of all written comments received during the public comment period in subsection (13) of this section, and of all comments properly submitted in response to a public hearing required under subsection (14) of this section.
  - (b) The department will prepare a response to all relevant comments received, and will briefly describe any changes that resulted (other than editorial changes) to a permit.
  - (c) The department is not obligated to consider or respond to comments or information that is received later than 30 days after the date of publication of public notice, or the date of a public hearing, whichever is later.
- (16) **Compliance schedules.**
- (a) A permit may specify a schedule leading to compliance with the federal Clean Water Act and these regulations. Any compliance schedule under this subsection must require compliance as soon as possible, but not later than any applicable statutory deadline under the Clean Water Act or chapter 70.95J RCW.
  - (b) **Interim dates.** If a permit establishes a compliance schedule that exceeds 1 year from the date of permit issuance, the schedule must set forth interim requirements and the date for their achievement. The time between interim dates must not exceed 6 months.
  - (c) **Reporting.** The permit must require that no later than 14 days after each interim date and the final date of compliance, the permittee must notify the department in writing of its compliance or noncompliance with the interim or final requirements.
- (17) **Fact sheet required for individual permits.**
- (a) The department must prepare a fact sheet for every draft individual permit for a class I biosolids management facility, for every draft individual permit requiring permit conditions developed on a case-by-case basis to implement section 405(d)(4) of the Clean Water Act, for every draft individual permit that includes a general land application plan, and for every draft individual permit that the director finds is the subject of widespread public interest or raises major issues.
    - (i) The fact sheet must briefly set forth the principal facts and the significant factual, legal, methodological, and policy questions considered in preparing the draft permit.
    - (ii) The director must send this fact sheet to the applicant and, on request, to any other person.
  - (b) **Fact sheet contents.** The fact sheet must include all of the following:
    - (i) A brief description of the type of facility or activity that is the subject of the draft permit.
    - (ii) Any calculations or other necessary explanation of the derivation of conditions for biosolids use and sewage sludge disposal, including a citation to the applicable standards for biosolids use or sewage sludge disposal and reasons why they are applicable, or in the case of conditions developed on a case-by-case basis to implement section 405(d)(4) of the Clean Water Act, an explanation of, and the bases for the conditions.
    - (iii) For permits that include a general land application plan, a brief description of how each of the required elements of the land application plan is addressed in the permit.
- (18) **Approval of coverage - provisional approval and final coverage.**



- (a) **Provisional approval.** Except for new beneficial use facilities as described in (a)(ii) of this subsection, facilities that are in compliance with this chapter, an applicable permit, and any plans submitted as part of a request to obtain a permit are provisionally approved to engage in the biosolids management activities proposed in their applications.
- (i) Facilities with provisional approval are subject to further review and permitting requirements at a later date, and are subject at all times to all applicable conditions of this chapter, an applicable permit, and any plans submitted as part of a request to obtain a permit.
- (ii) New beneficial use facilities may not obtain provisional approval.
- (b) **Final coverage.** After reviewing a permit application and considering other pertinent information including any testimony received during a public hearing or meeting or written comments submitted in response to a public notice, the department may approve coverage under a general permit or issue an individual permit. If final approval is issued, the department will notify the applicant in writing of its decision including any additional requirements or stipulations that are imposed as a condition of approval in accordance with subsection (19) of this section.
- (c) **Disapproval.** If an application for a permit is disapproved, the department will notify the applicant in writing, including an explanation of why the application was disapproved.
- (d) In no case may a lack of action by the department be construed as relieving an applicant of the obligation to comply with any of the provisions of this chapter or an applicable permit, or as approving final use or disposal practices that are not consistent with the provisions of this chapter or an applicable permit, or that pose a threat to human health or the environment.
- (19) **Additional or more stringent requirements.**
- (a) On a case-by-case basis, the department may impose requirements for the beneficial use of biosolids that are in addition to or more stringent than the requirements in this chapter if the department believes that the additional or more stringent 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 chapter.
- (b) In addition to other considerations, failure of a generator, applier, or landowner to conform to any applicable requirements of this chapter may be cause to impose additional or more stringent requirements.
- (c) The department will impose any additional or more stringent requirements in an individual permit issued to a facility, in general permits issued in accordance with Appendix 5 of this chapter, and in the issuance of final coverage under a general permit.
- (d) Any additional or more stringent requirements imposed in accordance with this section are considered to be permit requirements, fully enforceable in accordance with the provisions of this chapter and the applicable permit. Deleted: and
- (e) If known, any additional requirements must be disclosed at a public hearing if a public hearing is held, or if imposed subsequent to a public hearing, must become a part of the written record required under subsection (15)(b) of this section.
- (20) **Prohibition.** The department may not issue a permit when the Regional Administrator of EPA has objected in writing under 40 CFR 123.44.
- (21) **Duration of permits.**
- (a) Permits are issued for fixed terms up to, but not exceeding, 5 years from the effective date of the permit. Final coverage under a general permit may be issued for a period up to the remaining term of issuance for the permit.

- (b) The term of a permit may not be extended by modification beyond 5 years.
- (22) **Transfer of permit coverage.**
- (a) Except as provided in (b) of this subsection, a permit may be transferred by the permittee to a new owner operator only if the permit has been modified or revoked and reissued to identify the new permittee and incorporate other requirements as may be necessary to assure compliance with the requirements of this chapter.
- (b) **Automatic transfer.** Coverage under a permit is automatically transferred from the old permittee to a new permittee on the date agreed to if all of the following conditions are met:
- (i) A written, signed agreement between the old and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability is submitted in accordance with (b)(i)(A) through (D) of this subsection at least 30 days in advance of the proposed date of transfer.
- (A) The original to the biosolids coordinator in the regional office of the department where the facility is located.
- (B) One copy to any other regional office of the department where the facility's biosolids or sewage sludge will be treated, stored, disposed, or applied to the land.
- (C) One copy to the biosolids coordinator at the department's headquarters office.
- (D) One copy to the local health jurisdiction in each county where biosolids or sewage sludge will be treated, stored, disposed, or applied to the land.
- (ii) The department has not notified both permittees of any objection to the transfer, or of the intent to revoke the permit.
- (c) No condition or requirement of a permit or this chapter may be waived by the transfer of permit coverage from one party to another.
- (23) **Modification or revocation and reissuance of permits.**
- (a) When the department receives any information (for example, upon inspection of a facility, receipt of information submitted by the permittee as required in the permit, receipt of a request for modification or revocation and reissuance, or upon a review of the permit file), the department may determine whether or not one or more of the causes listed in (b) or (c) of this subsection for modification or revocation and reissuance, or both, exist.
- (i) If cause for modification or revocation and reissuance, or both, exists, the department may modify or revoke and reissue a permit and may request an updated application if necessary.
- (ii) When a permit is modified, only the conditions subject to modification are reopened.
- (iii) If a permit is revoked and reissued, the entire permit is reopened and subject to revision, and the permit may be reissued for a new term.
- (iv) If cause does not exist under this section, the department may not modify or revoke and reissue a permit.
- (b) **Causes for modification.** The following are causes for modification but not revocation and reissuance of permits except when the permittee requests or agrees.
- (i) **Alterations.** There are material and substantial alterations or additions to the permitted facility or activity that occurred after permit issuance that justify the application of permit conditions that are different from or absent in the existing permit.

- (ii) *Information.* The department has received new information. A permit may be modified during its term for this cause only if the information was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and would have justified the application of different permit conditions at the time of issuance.
- (iii) *New regulations.* New regulations have been adopted or the standards or regulations on which the permit was based have been changed by adoption of amended standards or regulations or by judicial decision after the permit was issued.
- (iv) *Compliance schedules.* The department determines good cause exists for modification of a compliance schedule, such as an act of God, strike, flood, or materials shortage or other events over which the permittee has little or no control and for which there is no reasonable available remedy. However, in no case may a compliance schedule be modified to extend beyond an applicable Clean Water Act statutory deadline.
- (v) *Land application plans.* When required by a permit condition to incorporate a general land application plan for beneficial use of biosolids, to revise a general land application plan, or to add a general land application plan.
- (c) **Causes for modification or revocation and reissuance.** The following are causes to modify or, alternatively, revoke and reissue a permit.
  - (i) Cause exists for termination under subsection (24) of this section and the department determines that modification or revocation and reissuance is appropriate.
  - (ii) The department has received notification of a proposed transfer of the permit.
- (d) **Public notice requirements.** When a permit is modified or revoked and reissued, the public notice requirements of subsection (13) of this section, and if required the public hearing requirements of subsection (14) of this section must be complied with for the reopened conditions or reissued permit.
- (24) **Causes for termination of permits, denying permit applications, or denying expansion of an existing permit.** The following are causes for terminating a permit during its term, or for denying a permit application, or for denying an expansion of an existing permit:
  - (a) Noncompliance by the permittee with any condition of the permit.
  - (b) The permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts, or the permittee's misrepresentation of any relevant facts at any time.
  - (c) A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination.
  - (d) A change in any condition that requires either a temporary or a permanent reduction or elimination of any activity controlled by the permit.
  - (e) Failure by the permittee to pay a permit fee issued in accordance with WAC 173-308-320.
- (25) **Requirement to coordinate permitting with delegated local health jurisdictions.** When a local health jurisdiction has received delegation to administer any portion of, or to carry out any activity required under this chapter, all facilities subject to permitting under this chapter must cooperate with the department and the local health jurisdiction by coordinating permitting activities so as to assure an opportunity for local health jurisdiction involvement consistent with the terms of the delegation agreement.

**WAC 173-308-320 PERMIT FEES.**

- (1) All facilities that are required to obtain a permit must pay an annual biosolids permit fee to the department.
- (2) Biosolids permit fees are assessed on an annual basis and apply regardless of the date of issuance of a permit.
- (3) Except for those facilities described in subsection (4)(h) of this section, biosolids permit fees are assessed and collected for fiscal years for wastewater treatment facilities and for calendar years for receiving-only facilities and septage management facilities. Fees are due and payable within 45 days after the department mails a billing statement.
  - (a) Fees are considered delinquent if they are not received by the first invoice billing due date.
    - (i) If a fee is determined to be delinquent, the permittee will be notified by certified letter and have 30 days to bring their account up-to-date before further action is taken by the department.
    - (ii) Failure to pay a fee is a cause for termination of a permit in accordance with WAC 173-308-310(24).
  - (b) Upon request from the permittee, the department may at its discretion mail partial billing statements up to 2 times per year, in which case a facility is responsible only for the amount reflected on the current (and any past due) billing statement.
- (4) The permit fee schedule is based on the number of residences or residential equivalents (residential equivalent value) contributing to a permittee's biosolids management system. All charges per residential equivalent and any maximum fees listed in this subsection will be adjusted by the annual fiscal growth factor calculated under chapter 43.135 RCW.
  - (a) All facilities required or requesting to obtain a permit or approval are assigned a minimum of 1 residential equivalent.
  - (b) For facilities with NPDES permits issued under chapter 173-220 WAC or state waste discharge permits issued under chapter 173-216 WAC, the department will use residential equivalent values determined under chapter 173-224 WAC. If no residential equivalent value is determined under chapter 173-224 WAC, the number of residences connected to the system or another appropriate criteria will be used to determine the residential equivalent value.
  - (c) The residential equivalent value for receiving-only facilities other than septage management facilities in (e) of this subsection is the sum of the residential equivalent values contributed from all sources, as determined by considering the portion of the current annual production of each originating source that is provided to the receiving facility.
  - (d) The residential equivalent value for facilities located outside of the state (e.g., those on tribal lands, other states, and other nations) who export solids into the state will be based on the portion of the current annual production of the facility that is exported into the state.
  - (e) For septage management facilities, each 1,250 gallons of septage received for treatment or applied to the land is equal to 1 residential equivalent.
  - (f) Equations (5) and (6), below, are used to calculate permit fees:

Comment [DKT35]: This was deleted because the department does not assess fees for receiving-only facilities and SMFs prospectively.

Deleted: prospectively

<p><b>Equation (5)</b></p> <p><b>Permit Fee = (REV x Cost per RE<sub>FGF</sub>)</b></p>
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Where:

REV = residential equivalent value.

FGF = An annual fiscal growth factor expressed as a percentage, as determined under chapter 43.135 RCW.

Cost per RE<sub>FGF</sub> = cost per residential equivalent in dollars including a fiscal growth factor. The cost per RE<sub>FGF</sub> is obtained by multiplying the cost per residential equivalent in the preceding year by the current year's fiscal growth factor as follows in Equation (5).

**Equation (6)**

**Cost per RE<sub>FGF</sub> = Previous year's cost per RE x [1 + (FGF)]**

- (g) For implementation of the fiscal growth factor, the base year for all biosolids permit fees will be fiscal year 2008, ending June 30, 2008. In the base year, the FGF will be zero (0).
- (h) **Review fee for new facilities.** New facilities proposed after July 1, 2007, will be required to pay a nonrefundable fee of \$1,800.00 for the first residential equivalent prior to departmental review of an application package or proposal. In addition, following issuance of a permit or approval, the facility will be subject to the fees described in (i) of this subsection.
- (i) A cost of \$600.00 will be assigned to the first residential equivalent for all facilities. The cost per subsequent residential equivalent in the base year will be as follows:
  - (i) \$0.00 per residential equivalent for permits issued to municipalities that own or operate incinerators that fire sewage sludge to dispose of sewage sludge generated by their own facility in a municipal solid waste landfill or through another facility on an emergency basis.
  - (ii) \$0.051 per residential equivalent up to a maximum of \$3000.00 for permits issued to receiving-only facilities.
  - (iii) \$0.215 per residential equivalent for permits authorizing any other type of solids management activity including, but not limited to, the following:
    - (A) Direct beneficial use by a treatment works treating domestic sewage.
    - (B) Transfer from one facility to another facility, including delivery to an incinerator from nonincinerating jurisdictions.
    - (C) Prolonged treatment or storage including, but not limited to, lagoon systems.
    - (D) Treatment or land application of septage.
    - (E) Disposal of sewage sludge in a municipal solid waste landfill except for facilities under (i)(i) of this subsection.
    - (F) Exporting biosolids or sewage sludge from facilities located outside of the state.
  - (iv) \$0.16 per residential equivalent above 100,000.

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 Comment [DKT36]: The changes and additions to this subsection are for clarification purposes.

(5) Following is a summary table showing the equations used to calculate fees for the base year.

Facility Type	Fee Formula for Base Year
Septage management	\$600 + (gallons ÷ 1,250 x \$0.215)
Receiving-only (includes beneficial use facilities)	\$600 + (REV <sub>received</sub> x \$0.051) Maximum of \$3,000
Out-of-state	\$600 + (REV <sub>exported</sub> x \$0.215)

Comment [DKT37]: Change necessary to correct a department error. The two facilities affected by this subsection approved of the change made.  
 Deleted: 051

Incineration	\$600.00
All others (includes most wastewater treatment facilities)	$\$600 + (\text{REV}_{<100,000} \times \$0.215) + (\text{REV}_{\geq 100,000} \times \$0.\underline{16})$
New facility review fee	\$1,800
<p>Where:</p> <p><math>\text{REV}_{\text{received}}</math> = residential equivalent values received (based on the portion of the residential equivalent values contributed from each source).</p> <p><math>\text{REV}_{\text{exported}}</math> = residential equivalent values exported (based on the portion of the annual production of the facility that is exported into the state).</p> <p><math>\text{REV}_{&lt;100,000}</math> = residential equivalent values less than 100,000.</p> <p><math>\text{REV}_{\geq 100,000}</math> = residential equivalent values greater than or equal to 100,000.</p>	

**Comment [DKT38]:** Change necessary to correct a department error. The two facilities affected by this subsection approved of the change made.

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**WAC 173-308-90001 APPENDIX 1 MINIMUM CONTENT FOR A PERMIT APPLICATION**

- (1) The activities conducted by the applicant that require it to obtain a permit, and if applying under a general permit, the name of the permit.
- (2) Name, mailing address, and location of the facility for which the application is submitted.
- (3) The operator's name, address, telephone number, ownership status, and status as federal, state, private, public, or other entity.
- (4) Whether or not the facility or any associated facilities or land applications sites are located on tribal or federal lands.
- (5) A listing of other relevant environmental permits, and all permits or construction approvals received or applied for under any of the following programs:
  - (a) Hazardous waste management program under the Resource Conservation and Recovery Act.
  - (b) Underground injection control program under the Safe Drinking Water Act.
  - (c) National pollutant discharge elimination system program under the Clean Water Act.
  - (d) Prevention of significant deterioration program under the Clean Air Act.
  - (e) Nonattainment program under the Clean Air Act.
  - (f) National emission standards for hazardous pollutants preconstruction approval under the Clean Air Act.
  - (g) Ocean dumping permits under the Marine Protection, Research, and Sanctuaries Act.
  - (h) Dredge or fill permits under section 404 of the Clean Water Act.
- (6) A map extending 1 mile (1.6 kilometers) beyond the property boundaries of the facility, showing the location and means of access to the facility, and additional maps if necessary, showing the same for any associated treatment or storage facilities.
- (7) Any biosolids monitoring data the applicant has for the last 2 years, including for land application sites any available soil, or surface or ground water monitoring data, with a description of the sampling locations, and for wells the approximate depth to ground water.
- (8) A description of the applicant's biosolids use and disposal practices including, where applicable, the location of any sites where the applicant transfers biosolids for treatment or sewage sludge for disposal, as well as the name of the applicator or other contractor who applies the biosolids to land if different from the applicant.
- (9) Land application plans, as required under WAC 173-308-310.
- (10) The amount of biosolids produced and the amount of biosolids applied to the land during the previous year, and estimated to be produced or applied to the land on an annual basis during the life of the permit.
- (11) Any information required to determine the appropriate standards for permitting under this chapter, and any other information the department may request and reasonably require to assess biosolids use or sewage sludge disposal practices, to determine whether or not to issue a permit, or to ascertain appropriate permit requirements under this chapter.

**WAC 173-308-90002 APPENDIX 2 MINIMUM CONTENT FOR A  
NOTICE OF INTENT TO BE COVERED UNDER A  
GENERAL PERMIT**

- (1) The name of the general permit under which coverage is being sought, and a statement declaring the applicant's intent to comply with the requirements of the permit.
- (2) The activities conducted by the applicant that require it to obtain coverage.
- (3) Name, mailing address, and location of the facility for which the application is submitted.
- (4) The operator's name, address, telephone number, ownership status, and status as federal, state, private, public, or other entity.
- (5) The location and a description of any site(s) where biosolids or sewage sludge are treated, stored, disposed, or applied, and whether or not any permit, including a local solid waste permit has been issued for a site.
- (6) Any information specifically required for a notice of intent under the applicable general permit.



**WAC 173-308-90003 APPENDIX 3 MINIMUM CONTENT FOR A SITE SPECIFIC LAND APPLICATION PLAN**

- (1) Whether or not it is known or can be determined that biosolids containing pollutants in excess of the values WAC 173-308-160 Table 3 have ever been applied to the site, and if so:
  - (a) The date(s) when the biosolids were applied (if known).
  - (b) The amount of biosolids applied (if known).
  - (c) The concentrations of the pollutants in the biosolids (if known).
  - (d) The area(s) of the site to which the biosolids were applied (if known).
- (2) A discussion of the types of crops grown or expected to be grown, their intended end use (e.g., pasture grass for a feed crop, corn as a food crop), and the current distribution of crops on the site.
- (3) An explanation of how agronomic rates will be determined during the life of the site, along with any currently available calculations. Whenever agronomic rates or the method used to determine agronomic rates change, an update of the agronomic rate calculations must be filed with the department.
- (4) Method(s) of application.
- (5) Seasonal and daily timing of biosolids applications.
- (6) Provisions for conducting any sampling of soils, surface waters, or ground water and any available data collected from the site within the last 2 years.
- (7) The name of the county and water resource inventory area where biosolids will be applied.
- (8) A description of how biosolids will be stored at the site that also addresses related off-site storage.
- (9) Map(s) for the site(s) must be submitted. Maps must be of an appropriate scale to show the detail necessary for evaluation of the proposed application areas and so that a person may reasonably be able to locate the sites and any application units within a site (for example, 1:7,920 [8 inches to the mile] for detailed information with an overview map at 1:63,360 [1 inch to the mile]). Minimally, maps must provide the following information:
  - (a) A legend.
  - (b) The location and means of access.
  - (c) Specific areas of the site where biosolids may be applied. If there is more than one site or more than one application unit within a site, a site or unit ID number should be included.
  - (d) The number of acres in the site or in any distinct application unit within a site.
  - (e) Location and extent of any wetlands on the site.
  - (f) A topographic relief of the application site and surrounding area.
  - (g) Adjacent properties and uses and their zoning classification.
  - (h) Any seasonal surface water bodies located on the site.
  - (i) Any perennial surface water bodies located on or within 1/4 mile (402 meters) of the site.
  - (j) The location of any wells located on or within 1/4 mile (402 meters) of the site that are listed in public records or otherwise known to the applicant, whether for domestic, irrigation, or other purposes.
  - (k) Buffer zones to features such as surface waters, wells, property boundaries, and roadways and the width of the buffer zones.
  - (l) The presence and extent of any threatened or endangered species or related critical habitat.
  - (m) The location of any critical areas on site, as required to be identified under chapter 36.70A RCW in the county's growth management plan.
  - (n) The location and size of any areas that will be used to store biosolids.
- (10) If the seasonal ground water is 3 feet (0.91 meters) or less below the surface, a management plan describing how you will protect ground water. For example, you may propose to limit applications to the time of year when ground water has receded to less than 3 feet (0.91 meters) below the surface.
- (11) A description of how access to the site will be restricted (e.g., signs posted around the site or other approved method of access restriction).
- (12) A copy of the landowner agreement required under WAC 173-308-120(6).
- (13) Any additional information requested by the department that is needed to evaluate the appropriateness of the site for biosolids application.

**Comment [DKT39]:** The language requiring plans for “non-vector attraction reduction” biosolids was deleted because the department already has the ability to affect storage of such material without the need for this additional plan. WAC 173-308-280(2) requires that such storage occur under a permit issued by the department. WAC 173-308-310(19) allows the department to issue “additional or more stringent” requirements when it issues a permit or final coverage under a general permit. And all plans, including the Site Specific Land Application Plan discussed in this Appendix, require department approval. In addition, most permit writers require that facilities get approval for in-field storage sites prior to their initial use.

**Deleted:** If biosolids that do not meet one of the vector attraction reduction requirements in WAC 173-308-180 may be applied to the site, a management plan describing how protection of human health will be ensured. For example, you may propose to limit storage to the time of year when potential vectors are likely to be minimized, or you may propose to provide temporary cover during storage.

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**Comment [DKT40]:** Changed to use standard USGS scales and to clarify that the scales cited are examples, not standards.

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**Comment [DKT41]:** This was added for clarification purposes and to provide some redundancy. This is already allowed in accordance with WAC 173-308-310(8)(h).

**WAC 173-308-90004 APPENDIX 4 MINIMUM CONTENT FOR A  
GENERAL LAND APPLICATION PLAN**

- (1) Describes the geographical area covered by the plan, including the names of all counties and water resource inventory areas where biosolids may be applied.
- (2) Identifies site selection criteria.
- (3) Describes how sites will be managed.
- (4) Provides for not less than 30 days advance notice to the department of new or expanded land application sites, including those subject to provisional approval under WAC 173-308-310(18), to allow time for the department to object prior to the biosolids application.
- (5) Provides for advance public notice as required in WAC 173-308-310(13), and that is reasonably calculated to reach potentially interested adjacent and abutting property owners.

**WAC 173-308-90005 APPENDIX 5 PROCEDURES FOR ISSUING  
GENERAL PERMITS**

When the department issues general permits, it will do so in accordance with the procedures in this section.

**(1) General permit coverage.**

- (a) The director may issue general permits to satisfy any or all of the biosolids management requirements in chapter 70.95J RCW or other applicable state or federal biosolids management requirements.
- (b) The director may issue general permits to cover categories or subcategories of facilities within appropriate geographic areas.
- (c) General permits may be written to cover categories of treatment works treating domestic sewage that meet all of the following requirements:
  - (i) Involve the same or substantially similar types of operations.
  - (ii) Engage in the same types of biosolids use or sewage sludge disposal practices.
  - (iii) Require the same or substantially similar operating conditions or standards for biosolids use or sewage sludge disposal.
  - (iv) Require the same or substantially similar monitoring.
  - (v) In the opinion of the director are more appropriately controlled under a general permit than under individual permits.

**(2) General permit preparation - preliminary determination.**

- (a) For all general permits, the department must make a preliminary determination to develop a general permit.
  - (i) Interested persons may petition the director requesting that a category of facilities be considered for the development of a general permit.
  - (ii) The department must respond to such a petition within 90 days of receipt.
- (b) The department must provide public notice of all preliminary determinations to develop a general permit pursuant to subsection (5)(a) of this section.
- (c) In the event that the department determines not to develop a general permit after publishing a preliminary determination pursuant to subsection (5)(a) of this section, the department must provide public notice to that effect in the same manner as the preliminary determination public notice was provided.

**(3) Fact sheets.**

- (a) The department must prepare a fact sheet for every draft general permit determination. Such fact sheets must summarize the following:
  - (i) The legal basis of the permitting program.
  - (ii) The type of facility or activity which is the subject of the general permit.
  - (iii) The geographical area for which the general permit is valid.
  - (iv) The criteria for which coverage under a general permit will be approved.
  - (v) If available, a listing or some other means of identifying the facilities proposed to be covered under the general permit.
  - (vi) The information required to be submitted as part of the application for coverage under the general permit.

- (vii) The general characteristics of the facilities being authorized under the general permit.
  - (viii) Standards and limitations imposed in the general permit.
  - (ix) A general description of the conditions in the general permit.
  - (x) Any compliance schedules proposed as part of the general permit.
  - (xi) The procedures for the formulation of final determinations, including:
    - (A) The 30-day comment period required in subsection (5)(c)(iv) of this section, including the date and time after which public comments will not be considered by the department in formulating the final determination on the draft general permit.
    - (B) The time and place of the public hearing(s) required in subsection (7) of this section.
    - (C) Any other procedures by which the public may participate in the formulation of the final determination.
  - (xii) A summary of the economic impact analysis required in subsection (4) of this section, including any mitigation proposed for small business.
- (b) The department must provide copies of general permit fact sheets to any interested person upon request.
- (4) Economic impact analysis.**
- (a) The department must prepare an economic impact analysis on all draft general permits which are intended to directly cover small business. The economic impact analysis must be prepared on the draft general permit for which public notice is being provided pursuant to subsection (5)(c) of this section.
  - (b) The purpose of the economic impact analysis is to reduce the economic impact of the general permit on small business by doing one or more of the following when it is legal and feasible in meeting the stated objectives of chapter 70.95J RCW:
    - (i) Establishing differing compliance or reporting requirements or timetables for small businesses.
    - (ii) Clarifying, consolidating, or simplifying the compliance and reporting requirements under the general permit for small businesses.
    - (iii) Establishing performance rather than design standards.
    - (iv) Exempting small businesses from parts of the general permit.
  - (c) The contents of an economic impact analysis of a proposed general permit must include, at a minimum, the following:
    - (i) A brief description of the compliance requirements of the general permit, including:
      - (A) The minimum quality requirements.
      - (B) The monitoring requirements contained in the general permit.
      - (C) The reporting and recordkeeping requirements.
      - (D) Any plan submittal requirements.
    - (ii) The estimated costs of compliance, based upon existing data for facilities intended to be covered under the general permit. Costs must include:
      - (A) The costs associated with (c)(i) of this subsection.
      - (B) The costs of equipment, supplies, labor, and any increased administrative costs.

- (iii) A comparison, to the greatest extent possible, of the cost of compliance for small businesses with the cost of compliance for the largest 10 percent of the facilities intended to be covered under the general permit. The economic impact analysis must use one or more of the following as a basis for comparing costs:
  - (A) Cost per employee.
  - (B) Cost per hour of labor.
  - (C) Cost per one hundred dollars of sales.
- (d) The following compliance costs associated with a general permit must not be included in the economic impact analysis:
  - (i) The costs necessary to comply with chapter 173-308 WAC.
  - (ii) The costs associated with requirements of the general permit which result from conformity or compliance, or both, with federal law or regulations.
- (5) **Public notice.** The department must provide public notice of all preliminary determinations to develop a general permit, all determinations not to develop a general permit after publishing such a preliminary determination, all draft general permit determinations, and the issuance of a final general permit. All public notices must be circulated in a manner designed to inform interested and potentially affected persons of the proposed general permit.
  - (a) **Public notice for preliminary determinations.** The department must provide public notice of all preliminary determinations to develop a general permit as follows:
    - (i) The public notice must be circulated within the geographical area of the proposed general permit. Such notice may include any or all of the following:
      - (A) Publishing, as a paid advertisement or legal notice, the department's preliminary determination in one or more major local newspapers throughout the area of proposed coverage.
      - (B) Issuance of news releases, focus sheets, or newsletters.
      - (C) Publication in the *State Register*.
    - (ii) The department must request comments on whether a general permit is appropriate for the proposed category of facilities or whether individual permits are necessary.
    - (iii) The public notice must provide an opportunity for any interested or potentially affected party to submit information on facilities proposed to be covered under a general permit including:
      - (A) Any documented information on the characteristics of the biosolids including quantity, quality, and any land application sites. Information may be from an individual facility or be representative of the category as a whole.
      - (B) Any other relevant information.
    - (iv) The department must add the name of any person upon request to a general permit specific mailing list to receive information and notices related to the development of the general permit.
  - (b) In the event that the department determines not to develop a general permit after publishing a preliminary determination pursuant to (a) of this subsection, the department must provide public notice to that effect.
  - (c) **Public notice for draft general permits.** The department must provide public notice of every draft general permit as follows:
    - (i) The notice must be circulated throughout the geographical area covered by the general permit. Such circulation may include any or all of the following:

- (A) Posting for a period of 30 days in post offices, public libraries, and public places within the geographical area covered by the general permit.
  - (B) Publishing the notice as a paid advertisement, display advertisement, or legal notice, in one or more major local newspapers of general circulation serving the area covered by the general permit.
  - (C) Issuance of news releases, focus sheets, or newsletters.
- (ii) Notice must be mailed to any person upon request, including all persons on the general permit specific mailing list established pursuant to (a)(iv) of this subsection and all known, potential permittees.
  - (iii) At least 30 days before the public hearing(s) required in subsection (7) of this section, the department must have the following published in the *State Register*:
    - (A) The public notice contents contained in (c)(vi) of this subsection.
    - (B) A reference to the relevant sections of chapter 70.95J RCW as the statutory authority for issuing the general permit.
    - (C) The date on which the agency intends to issue the general permit.
    - (D) A short explanation of the permit, its purpose, and anticipated effects.
    - (E) A summary of the economic impact analysis required in subsection (4) of this section.
  - (iv) *Public comment period.* The department must provide a period of not less than 30 days following the last publication of the public notice, during which time interested persons may submit their written views on a draft general permit determination. All written comments submitted during the comment period must be retained by the department and considered in the formulation of its final determination with respect to the draft general permit. The period for comment may be extended at the discretion of the department.
  - (v) The department must make available during the public comment period:
    - (A) The draft general permit.
    - (B) The fact sheet on the draft general permit required pursuant to subsection (3) of this section.
    - (C) The economic impact analysis required pursuant to subsection (4) of this section.
    - (D) A copy of the proposed application for coverage.
    - (E) The notice required pursuant to (c)(iii) of this subsection.
  - (vi) The contents of the draft general permit public notice must, at a minimum, summarize the following:
    - (A) The name, address, and phone number of the agency issuing the public notice.
    - (B) The type of facilities and activities which are the subject of the general permit.
    - (C) The geographical area for which the general permit is valid.
    - (D) The criteria for which coverage under a general permit will be approved.
    - (E) If available, a listing or some other means of generally identifying the facilities proposed to be covered under the general permit.
    - (F) The tentative determination to issue a general permit.
    - (G) The procedures for the formulation of final determinations, including the 30-day comment period required in (c)(iv) of this subsection and any other means by which interested persons may comment upon those determinations.

- (H) The date, time, and place when the public hearing(s) required in subsection (7) of this section will be held.
  - (I) The address and phone number of state premises at which interested persons may obtain further information.
  - (J) The date and time after which comments will not be considered by the department in formulating the final determination on the draft general permit.
- (d) **Public notice for final general permits.** The department must provide public notice of the issuance of a final general permit as follows:
- (i) The notice of general permit issuance must be circulated in a manner similar to that used to circulate the notice on the draft general permit in (c)(i) of this subsection and must be published in the *State Register*.
  - (ii) The notice of general permit issuance must be provided to all persons on the general permit specific mailing list established pursuant to (a)(iv) of this subsection and all known, potential permittees.
  - (iii) The public notice of the issuance of a general permit must contain:
    - (A) The name, address, and phone number of the agency issuing the public notice.
    - (B) The type of facilities and activities which are the subject of the general permit.
    - (C) The geographical area for which the general permit is valid.
    - (D) The criteria for which coverage under a general permit will be approved.
    - (E) If available, a listing or some other means of generally identifying the facilities proposed to be covered under the general permit.
    - (F) A summary of the application process by which eligible facilities may obtain coverage under the general permit.
    - (G) An explanation of any changes to the final general permit, other than editing changes, and the principal reasons for adopting the changes.
    - (H) A notice that the terms and conditions of the general permit may be appealed only by filing an appeal with the pollution control hearings board and by serving it upon the department within 30 days, and the process for doing so as contained in RCW 43.21B.310.
    - (I) The date after which the general permit will be effective. The effective date of a general permit must be no sooner than 30 days after the publication in the *State Register* of the public notice required pursuant to (d)(i) of this subsection.
- (6) **Notice to other government agencies.** The department must notify other appropriate government agencies of each draft general permit determination and must provide such agencies an opportunity to submit their written views and recommendations.
- (7) **Public hearings.**
- (a) The department must hold one or more public hearing(s) on all draft general permits. The public hearing must be held during the public comment period provided pursuant to subsection (5)(c)(iv) of this section.
  - (b) The date, time, and place will be at the discretion of the department provided:
    - (i) At least 30 days is provided between the time the public notice is published pursuant to subsection (5)(c)(i) and (iii) of this section, and the time the hearing is held.
    - (ii) The hearing location is within the geographical area covered by the general permit.
  - (c) The department must cause a record to be made of all hearings required pursuant to this section. The record may be stenographic, mechanical, or electronic.

**(8) Public access to information.**

- (a) In accordance with chapter 42.17 RCW and its published policy describing disclosure of public records, the department must make identifiable public records relating to all general permits available to the public for inspection and copying.
- (b) The department must designate a general permit coordinator for each general permit. The coordinator must:
  - (i) Have knowledge of the general permit being prepared.
  - (ii) Maintain the records associated with the development of the general permit including the general permit file required pursuant to (c) of this subsection.
  - (iii) Be identified as the department contact in public notices regarding the general permit.
- (c) **General permit development file.** The department must prepare a general permit development file for each issued general permit. The general permit development file must be available for public inspection subject to the provisions of this section. The general permit development file must contain:
  - (i) Copies of all public notices required pursuant to subsection (5) of this section.
  - (ii) A copy of the fact sheet required pursuant to subsection (3) of this section and any other documents not readily available to the public which were used in developing the terms and conditions of the general permit.
  - (iii) A copy of the economic impact analysis required pursuant to subsection (4) of this section.
  - (iv) Copies of the draft and final general permits and the application for coverage.
  - (v) All written comments received during the public comment period required pursuant to subsection (5)(c)(iv) of this section, on the draft general permit, fact sheet, economic impact analysis, and application for coverage.
  - (vi) The record of public hearings produced pursuant to subsection (7)(c) of this section.
  - (vii) The response to comments prepared pursuant to subsection (9)(a) of this section.
- (d) The department must add the name of any person, upon request, to a mailing list to receive notices of department actions associated with a general permit.
- (e) The department must provide facilities for the inspection of information relating to general permits and must ensure that employees honor requests for such inspection promptly without undue requirements or restrictions. The department must do either:
  - (i) Ensure that a machine or device for the copying of papers and documents is available for a reasonable fee.
  - (ii) Otherwise provide for, or coordinate with copying facilities or services such that requests for copies of nonconfidential, identifiable public records be honored promptly.

**(9) Issuance of general permits.**

- (a) At the close of the public comment period required pursuant to subsection (5)(c)(iv) of this section, the department must prepare a response to all relevant comments received (both written and oral) and must briefly describe any changes, other than editing changes, and the principal reasons for making the changes to the draft general permit.
- (b) General permits must be deemed issued upon signing by the director or by a person delegated the authority to issue general permits pursuant to chapter 173-06 WAC.
- (c) The department must provide public notice of the issuance of all final general permits pursuant to subsection (5)(d) of this section.



- (d) General permits become effective 30 days after the date of publication in the *State Register* of the public notice required pursuant to subsection (5)(d) of this section unless a later date is specified by the department.
- (10) **Appeals.**
- (a) The terms and conditions of a general permit as they apply to the appropriate class of facilities are subject to appeal within 30 days of issuance of a general permit in accordance with chapter 43.21B RCW.
  - (b) The terms and conditions of a general permit, as they apply to an individual facility, are appealable, within 30 days of the effective date of coverage of that facility, in accordance with chapter 43.21B RCW. This appeal is limited to the general permit's applicability or nonapplicability to that individual facility.
  - (c) The appeal of general permit coverage of an individual facility does not affect any other facilities covered under the general permit. If the terms and conditions of a general permit are found to be inapplicable to any individual facility, the matter must be remanded to the department for consideration of issuance of an individual permit or permits.
- (11) **Modification, revocation and reissuance, and termination of general permits.** A general permit may be modified, revoked and reissued, or terminated, during its term for cause including, but not limited to, the following:
- (a) A change occurs in the technology or practices for control or abatement of pollutants applicable to the category of facilities covered under the general permit.
  - (b) New biosolids or sewage sludge guidelines or standards are promulgated pursuant to the Clean Water Act or chapter 70.95J RCW, for the category of facilities covered under the general permit.
  - (c) Information is obtained which indicates that cumulative effects on the environment from facilities covered under the general permit are unacceptable.
- (12) **Notice for determinations to modify or revoke.** In the event that the director has determined to modify or revoke, in whole or in part, a general permit pursuant to subsection (11) of this section the director must notify, in writing, all facilities covered under the general permit. The notification must include:
- (a) The reason(s) why the general permit is being revoked or modified.
  - (b) The process for appealing the determination pursuant to RCW 43.21B.310.
  - (c) An application form and a time limit for submitting the application.
  - (d) Any other information determined to be relevant by the department.

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**A subsection (2) was added to provide facilities with some guidance on meeting the removal requirement in subsection (1). It does not mandate or eliminate any alternative for meeting the requirement.**

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Except for facilities who have been approved for long-term disposal in accordance with WAC 173-308-300(9), all facilities must meet t

Page 24: [4] Comment [DKT22]	Daniel Thompson	4/11/2007 1:27:00 PM
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**2011 was changed to 2012 in order to accommodate the typical 5-year planning horizon that some facilities must use. The earlier dates for compliance were removed for simplicity purposes.**

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submit a plan to the department by July 1, 2008, that specifies how this standard will be met by July 1, 2011

Page 24: [6] Comment [DKT23]	Daniel Thompson	4/11/2007 1:27:00 PM
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**The <1% standard cited here was added to provide facilities with an objective standard for recognizables. Note, that this standard is the same standard the department applies to composts in accordance with Table B in WAC 173-350-220(4)(a)(viii)(E).**

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unless manufactured inerts have been significantly removed or reduced