



Small Business Economic Impact Statement

For Proposed Amendments to

Chapter 173-308 WAC, Biosolids Management

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Washington State Department of Ecology
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SUMMARY

Ecology is proposing amendments to WAC 173-308. The Regulatory Fairness Act – RCW 19.85.011 requires Ecology to prepare a Small Business Economic Impact Statement (SBEIS) to show we have considered how the rule amendments will impact small businesses in comparison to large businesses. After evaluating the proposed amendments, Ecology determines that some of the amendments will increase the costs to manage biosolids and some will decrease the costs. We also determine that the proposed amendments will have a disproportionate impact on small businesses. Therefore, we must include cost-minimizing features in the rule where it is legal and feasible to do so.

SIC CODE AFFECTED

The costs affect businesses, public utilities, and government entities that handle septage and biosolids in the Transportation and Public Utilities, Industry Group 495 SIC code.

PROPOSED RULE AMENDMENTS

Note: A more detailed explanation of the amendments is provided in Appendix I. This document only evaluates the proposed amendments that create a legal change for the biosolids businesses. Appendix I also explains which amendments create a legal change, why some amendments were not included in the research, and any changes to the amendments in response to comments received.

Ecology is proposing the following amendments. The ones marked with an “*” reduce costs.

- Combining the previous classifications of Class I, Class II, and Class III septage into a single definition of “septage”.
- Imposing a requirement that all facilities which land apply septage or treat septage for land application obtain a permit from the department.
- Imposing the same site management and access restrictions requirements for sites receiving septage whether the material is pH-stabilized or not.
- *Providing a categorical exemption from the rule for composting toilet systems whose output is transferred to a facility permitted to manage it and an exemption from the permitting and reporting requirements for owners of composting toilet systems even if they land-apply the output.
- Imposing a requirement that facilities that transport or contract for the transportation of their solids submit a *Spill Prevention & Response Plan*.
- Eliminating the options for Class A-Alternative 3 and Class A-Alternative 4.
- Imposing a requirement that biosolids sold or given away in a bag or other container meet the criteria to be classified as exceptional quality.
- Imposing a requirement that all applicable facilities submit an Annual Biosolids Report and submit all requested information.

- Imposing a requirement for applications for coverage under a new biosolids general permit to be submitted within 90 days following the issuance of the permit but allowed for a case-by-case extension up to 180 days.
- *Providing exemptions from the reporting and permitting requirements for research projects conducted in accordance with a department-approved research plan and occurring on 10 acres or less.
- Imposing a requirement for public notice each permit cycle for facilities that land apply non-exceptional quality biosolids but limited the extent of the notice.
- *Eliminating 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 non-exceptional quality biosolids, and the facility is not proposing any significant changes in biosolids management practices.
- *Eliminating the need to do any notice if proposing an “insignificant” change either when applying for coverage under a new general permit or when proposing insignificant changes while covered under a permit.
- *Reducing the number of newspaper notices, when required, from 2 to 1.
- Imposing a requirement for a significant removal of “manufactured inerts” for all biosolids and septage. Facilities will have 2 years to attain this standard or up to 4 years if they submit a plan within 1 year explaining how they will meet the standard within 4 years.
- *Providing exemptions to the storage requirements for storage covered under another environmental permit and for “temporary/small-scale storage”.
- Imposing a requirement that biosolids stored in the field meet one of the vector attraction reduction (VAR) standards or the storer must provide the department with a plan addressing how field storage of non-VAR biosolids will not pose an undue risk to human health.
- *Providing for the “grandfathering in” of surface impoundments meeting the WAC 173-304-430 requirements but imposed the WAC 173-350-330 surface impoundment requirements for new or upgraded surface impoundments.
- Clarifying and simplifying the requirements for the importation of biosolids from facilities outside the state (includes tribal lands) by requiring an approval but not a permit if bulk material is sent to an Ecology-permitted facility or bagged material is distributed and requiring a full permit if the exporter seeks to manage their own operation within the state. In all cases, fees would be assessed based upon the percent of material produced that is exported into the state.
- Adding a requirement that preparers of biosolids or sewage sludge maintain the following 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.
- Adding a requirement that applicers of non-exceptional quality biosolids maintain the following records:
 - The location, by street address, if applicable, a copy of the assessor's plat map(s) with the application area(s) clearly shown 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 biosolids are applied.
 - The number of acres in each site on which biosolids were applied.
 - The date biosolids were applied to each site.
 - The annual nitrogen requirement for the crop or vegetation grown on each site.
 - 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.

DISPROPORTIONATE COSTS

The direct cost change of the proposed rule amendments has a disproportionate impact on small businesses.

Ecology collected data on these costs using a survey. The survey instruments are in Appendix 2. Details on the survey results are in Appendix 3. Ecology estimated the costs of the proposed rule amendments using survey results received by December 20, 2006. The survey respondents used a code to validate their survey instruments. This code does not allow ecology to distinguish between Public Utility Districts, government entities, or private businesses. Therefore, we presented the estimated costs on a facility basis.

The largest costs come from new equipment for removing garbage from biosolids and submitting the annual biosolids reports. In the survey, Ecology asked facilities to provide the following types of costs:

- | | |
|-------------------------|----------------------------------|
| ● Reporting | ● Supplies |
| ● Record keeping | ● Labor |
| ● Compliance costs | ● Staff time |
| ● Professional services | ● Increased administrative costs |
| ● Equipment | ● Lost sales or revenue. |

However, these are included in one value under each type of cost for this rule.

Ecology has listed the costs in Table 1: Survey Results – Cost or Gain per Employee. The rows that are Green show an increase in costs. NOTE: Ecology cannot add up the dollar values because each facility will experience a different set of costs and gains.

Proposed Amendments that Increase Costs

- **The cost of spills plans for facilities that transport biosolids and septage who still do not have a spills plan.** This will include at most 25% of facilities. The impact of this proposed

amendment is disproportionate for those facilities that are affected. The cost per employee for small businesses is \$72 but for large businesses it is only 11 cents. Businesses that have a permit will not experience new costs. Ecology is evaluating this cost because the requirement is being shifted from the permit into the rule. The current biosolids general permit already requires facilities that transport, to submit a spill plan. The costs associated with this requirement in the permit were addressed in the *Economic Impact Analysis* conducted on the biosolids general permit in December 2004.

- **Submitting an annual biosolids report for facilities that did not have to do so in the past.** This will affect about 60% of the Wastewater Treatment Plant (WWTPs) and the Beneficial Use Facility (BUFs). The impact of this proposed amendment is disproportionate for those facilities that are affected. The cost per employee for small businesses is \$526 but for large businesses it is only 24 cents. Businesses that have a permit will not experience new costs. The reason for this is that the department already requires all facilities to submit an annual report. The department is already allowed to require this by the current rule. All facilities have been complying with this requirement since 1999. The reason Ecology is evaluating the cost is that the proposed amendments move this requirement from policy into rule.
- **Submitting the permit application within 90 days of the adoption of a general permit.** This may affect about 30% of facilities that had more time in the past. The impact of this proposed amendment is disproportionate for those facilities that are affected. The cost per employee for small businesses is \$54 but large facilities were unaffected because they already do this.
- **Some Septage Management Facility (SMFs) will have to obtain a permit.** This will affect 40% of the SMFs. Ecology estimates the cost per employee at \$819 for small facilities. No large facilities reported their costs.
- **Screening to remove garbage from biosolids.** Ecology changed the initial proposed rule amendment after the survey based on comments related to high costs. The language now requires “a significant removal of manufactured inerts”¹ in biosolids. We explain this change further in the *Reduced Compliance Costs* section and Appendix 1. The cost evaluation is based on facilities that have more than 5% garbage in the biosolids and assumes an impact on 20% of facilities. The impact of the *original* proposed amendment is disproportionate for those facilities that are affected. The cost per employee for small businesses is \$9,200 but for large businesses it is only \$400. The change made between the survey and the rule proposal will likely reduce this cost.
- **Reducing the risk from disease vectors from field storage of biosolids that do not meet a vector attraction reduction requirement.** The impact of this proposed amendment is disproportionate for those facilities that are affected. The cost per employee for small businesses is \$63 but large facilities are not affected.
- This SBEIS does not evaluate the elimination of the two Class A alternatives because only municipal facilities were affected.

¹ Manufactured inerts are defined in the draft revised rule as, “...wastes such as plastic, metals, ceramics and other manufactured items that remain relatively unchanged during wastewater or biosolids treatment processes.”

- **Management changes for unstabilized septage for three to six Septage Management Facilities (SMFs) that land apply unstabilized septage.** Ecology received comments on this amendment during the pre-proposal stage that suggested very high costs. Therefore, Ecology changed this proposed amendment after the cost survey was done. We explain this change further in the *Reduced Compliance Costs* section and Appendix 1. Under the proposed rule, facilities can land apply pH-stabilized septage, but the application rate may be stricter. Thus, the cost listed below for this item is very large by comparison with the likely actual cost. The impact of the *original* proposed amendment is disproportionate for those facilities that are affected. The cost per employee for small businesses is \$500 but large facilities are unaffected.
- **Site management requirements for five to ten SMFs that land apply pH-stabilized septage and do not limit access for cattle or the public.** The impact of this proposed amendment is disproportionate for those facilities that are affected. The cost per employee for small businesses is \$49 but for large businesses it is only 66 cents. Businesses that have a permit will not experience new costs. The reason for this is that the current biosolids general permit already requires facilities to maintain the same site management standards for both pH-stabilized and non-pH-stabilized septage. The reason Ecology is evaluating this requirement as a new cost is because it is being shifted from the permit into the rule.

Table 1: Survey Results – Cost or Gain per Employee

Rule Changes by Type	Small	Large
Spill Response Plan	-\$72.35	-\$0.11
Submit Annual Biosolids Report	-\$526.57	-\$0.24
Obtaining a permit (SMFs)	\$818.82	NA
Timing for Submitting a Permit Application	-\$54.76	-\$0.00
Public Notice Requirements for Non-exceptional Quality Biosolids or Septage	+\$58.90	+\$3.75
Insignificant Changes	+\$22.81	+\$0.06
Exemptions for Certain Research	NA	+\$5.53
Screening Requirements ²	-\$9,211.76	-\$404.76
Deferral to Other Permits for Storage	+\$28.13	+\$1.25
Field Storage Vector Attraction Reduction	-\$63.33	NA
Sale or Give Away?	\$0.00	\$0.00
Management of Unstabilized Septage ³	-\$500.00	NA
Site Management for pH-stabilized Septage	-\$49.26	-\$0.66

² The cost for the significant removal of garbage from biosolids was measured based on the “95% removal” question used in the survey.

³ The cost for the management of unstabilized septage was measured based on the “management of unstabilized septage” question used in the survey.

Proposed Amendments that Reduced Compliance Costs

Given the disproportionate impacts above, Ecology must include cost-minimizing features if it is legal and feasible to do so. RCW 19.85.030 (2) lists the methods below to reduce the costs on small businesses:

- (a) Reducing, modifying, or eliminating substantive regulatory requirements
- (b) Simplifying, reducing, or eliminating record keeping and reporting requirements
- (c) Reducing the frequency of inspections
- (d) Delaying compliance timetables
- (e) Reducing or modifying fine schedules for noncompliance
- (f) Any other mitigation techniques

The proposed amendments provide several features to reduce costs for individuals or facilities that do not increase health costs. We have listed the reduced costs in Table 1, above. The rows in yellow show the reduced costs. This direct savings has a present value of approximately \$343,000 over a 5-year permit cycle.

The proposed amendments provide exemptions that eliminate substantive requirements for some entities- RCW 19.85.030 (2)(a):

- Exemption from the rule or significant portions of the rule for composting toilet systems. Since these are not facilities, the savings is unknown.
- Exemption from the reporting and permitting requirements for research projects conducted in accordance with a department-approved research plan and occurring on 10 acres or less. Ecology estimates the present value of the savings from this exemption at \$184,000 over a 5-year period. Apparently, the only facilities doing this kind of work are large employers with over 50 employees. The savings per employee is \$5.50.
- Exemption to the storage requirements for storage covered under another environmental permit and for “temporary or small-scale storage”. Ecology estimates the present value of the savings from this exemption at \$13,000 over a 5-year period. The impact of this proposed amendment is disproportionate for those facilities that are affected. The savings per employee for small businesses is \$28 but for large businesses it is only \$1.25.

The proposed amendments provide for fewer public notices when required. - RCW 19.85.030 (2)(b):

- Reducing the number of newspaper notices, when required, from two to one and eliminating the need for a new public notice when applying for coverage under a new general permit if notice was done previously and the facility is not land-applying non-exceptional quality biosolids. Ecology estimates the savings from this set of exemptions at \$113,000 once every 5 years. The impact of this proposed amendment is disproportionate for those facilities that are affected. The savings per employee for small businesses is \$58 but for large businesses it is only \$3.75.

- Eliminating the need to do any notice if proposing an “insignificant” change either when applying for coverage under a new general permit or when proposing insignificant changes while covered under a permit. Ecology estimates the present value of the savings from this exemption at \$32,000. The impact of this proposed amendment is disproportionate for those facilities that are affected. The savings per employee for small businesses is \$22 but for large businesses it is only \$0.06.

The proposed amendments allow grandfathering, which will allow facilities to continue their current activities, while still increasing the requirements for new activities - RCW 19.85.030 (2)(a).

- This is for surface impoundments meeting the WAC 173-304-430 requirements. However, the revised WAC 173-350-330 surface impoundment requirements are imposed for new or upgraded surface impoundments. This does not provide a savings by comparison with the existing rule but simply avoids imposing a high cost for the existing facilities. The grandfathering would fit as a cost-minimizing feature under.

The proposed amendments provide opportunities to delay compliance schedules - RCW 19.85.030 (2)(d).

- Allowing for an extension of the timeline for submitting permit applications to up to 180 days. This is twice the length of time otherwise allowed. This will offset some of the additional costs estimated for submitting the permit applications within 90 days after the issuance of a general permit.
- Extending the period for which to comply with the “significant removal of manufactured inerts” by allowing facilities up to four years to comply if they submit a plan explaining how they will comply by that time. This change was made after the survey was conducted, thus the impact on the estimated costs due to this amendment cannot be determined. However, it would likely result in a significant reduction in costs because it would potentially allow a facility an additional two years to comply.

The proposed amendments provide some last minute cost reducing changes - RCW 19.85.030 (2)(f):

- Ecology eliminated the objective standard of 95% removal of garbage and shifted to a subjective standard of “significantly remove manufactured inerts”. Since this was not specifically evaluated in the survey instruments, it is not possible to state the impact of this change on the estimated costs of the *originally* proposed amendment. However, it is likely that using the subjective standard rather than the objective standard will result in a reduction in the estimated costs and, therefore, a reduction in the disproportionate impacts.
- Ecology eliminated part of the constraint on unstabilized septage by allowing facilities to land apply pH-stabilized septage but with possibly more strict land application rates. Because this cost was not specifically covered in the survey instruments, it is not possible for Ecology to identify the impact of this change on the estimated costs of the *originally* proposed amendment. However, it is highly likely that this change will result in a highly significant reduction in the estimated costs and, therefore, a significant reduction in the

disproportionate impacts. Most likely, the cost of this change will be reduced to nearly \$0.00 because the change in the proposal is almost a return to the *original* rule requirements.

OUTREACH TO SMALL BUSINESS

Ecology has made an extensive effort to involve small businesses in the development of the rule and will continue to do so. Below is a brief description of some of our efforts.

- **Advisory group representation.** Before amending the rule, Ecology formed an advisory group. Among the 17 members of the advisory group, five (29%) represented small businesses. Ecology held four meetings with the advisory group to discuss potential amendments. Following the meetings, a rough draft of the proposed rule was sent to the advisory group for review and comment. Ecology considered these comments during the development of the proposed rule. 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. Moreover, all of the small business representatives on the advisory group strongly supported the two most costly proposed amendments (the annual report requirement and the screening requirement).
- **Outreach through the surveys.** The surveys conducted for the development of this SBEIS and the overall Cost Benefit Analysis were sent to 54 of the 67 (81%) privately owned facilities regulated by the rule. Among the 54 recipients of the survey, 49 (91%) are thought to be small businesses. Thus, the recipients of the survey were disproportionately small businesses.
- **Outreach through newsletters.** Ecology published notices of the proposed rule amendments in three industry newsletters to reach small businesses and others to request their involvement in the process. The industry newsletters where the notice was published are:
 - ❖ *Biosolids Bulletin* (newsletter of the Northwest Biosolids Management Association)
 - ❖ *WORC Newsletter* (newsletter of the Washington Organics Recycling Council)
 - ❖ *Closed Loop Scoop* (newsletter from Ecology that goes out to the solid waste management industry).

Ecology will also publish notices in the newsletters prior to the opening of the public comment period and after we issue the adopted rule.

- **Outreach through direct contact.** In addition to providing notification of the public comment period on the draft rule amendments through newsletters and other means, Ecology will directly contact all small businesses to notify them of the comment period and provide them with a means to access the proposed rule amendments. The notice will strongly encourage review and comment.

APPENDIX 1: OVERVIEW OF AMENDMENTS AND ANY CHANGES RESULTING FROM COMMENTS RECEIVED THROUGH THE SURVEY

Septage

- Revised the definition of Class II septage to state that the material cannot be land applied unless it composes no more than 25% of a mixture with Class I septage or a stabilized Class III septage or it is managed as biosolids from a wastewater treatment plant.

Information on the Proposed Amendment and Its Assessment in the Survey

Comments/additional information.	Class II septage is generally untreated material such as that from a portable toilet.
Requirement under current rule.	Class II can be directly land-applied if it's pH-stabilized.
Why revision is needed.	(A) Protection of human health and the environment from pathogens. (B) Protection of the environment from unknown sanitizers/deodorizers used in the material.
Suggested revisions that were more stringent.	Complete ban on Class II application. This was rejected because it was deemed to be economically infeasible.
Addressed in survey? If "no", why?	Yes.
Was the proposal significantly amended after the survey was conducted? If "yes", explain.	Yes. Following comments received, the department decided to consolidate the various classes of septage into a single definition of "septage". In addition, the department decided to eliminate the originally proposed requirement that mixtures of septage containing more than 25% by volume of unstabilized septage be managed as biosolids from a wastewater treatment plant. As allowed under the current rule, such mixtures can be land applied as septage if they are pH-stabilized. However, the department also included an allowance to impose stricter application rates for such mixtures if the conditions warrant.

- Revised the definition of Class III septage to state that it's considered Class I septage if it's been largely stabilized, but its considered Class II septage if it's not been largely stabilized.

Information on the Proposed Amendment and Its Assessment in the Survey

Comments/additional information.	Class III septage is material that is generated at a commercial facility. Such material can be managed as septage if the department determines the material to be "domestic in quality". The extent of treatment of such material ranges from extended to very short periods in septic tanks.
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Requirement under current rule.	Class III septage is considered to be the equivalent of Class I septage in terms of management requirements.
Why revision is needed.	Protection of human health and the environment from pathogens.
Suggested revisions that were more stringent.	None.
Addressed in survey? If “no”, why?	Yes.
Was the proposal significantly amended after the survey was conducted? If “yes”, explain.	Yes. Following comments received, the department decided to consolidate the various classes of septage into a single definition of “septage”. In addition, the department decided to eliminate the originally proposed requirement that mixtures of septage containing more than 25% by volume of unstabilized septage be managed as biosolids from a wastewater treatment plant. As allowed under the current rule, such mixtures can be land applied as septage if they are pH-stabilized. However, the department also included an allowance to impose stricter application rates for such mixtures if the conditions warrant.

- Imposed a requirement that all facilities who land apply septage or treat septage for land application obtain a permit from the department.

Information on the Proposed Amendment and Its Assessment in the Survey

Comments/additional information.	Program policy has been to only require a permit for such facilities if they manage septage from multiple pumpers.
Requirement under current rule.	A permit is required for septage land appliers only when the department specifies that the facility is a treatment works treating domestic sewage.
Why revision is needed.	To ensure compliance with the rule by septage land appliers. Protection of human health and the environment from pollutants and/or pathogens.
Suggested revisions that were more stringent.	None.
Addressed in survey? If “no”, why?	Yes.
Was the proposal significantly amended after the survey was conducted? If “yes”, explain.	No.

- Imposed the same site management and access restrictions requirements for sites receiving septage whether the material is pH-stabilized or not.

Information on the Proposed Amendment and Its Assessment in the Survey

Comments/additional information.	Effectively all this requires in addition to the current 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 1 year following application (depends on the degree of likelihood of public contact). This is already a requirement in the biosolids general permit.
Requirement under current rule.	If septage is pH-stabilized, there is no requirement for grazing restrictions or site posting.
Why revision is needed.	(A) Protection of human health and the environment from pathogens. (B) Consistency with the biosolids general permit. (C) Simplification.
Suggested revisions that were more stringent.	None.
Addressed in survey? If “no”, why?	Yes.
Was the proposal significantly amended after the survey was conducted? If “yes”, explain.	No.

- Provided a categorical exemption from the rule for composting toilet systems whose output is transferred to a facility permitted to manage it and an exemption from the permitting and reporting requirements for owners of composting toilet systems even if they land-apply the output.

Information on the Proposed Amendment and Its Assessment in the Survey

Comments/additional information.	However, the draft rule revisions define a septage management facility and require a permit for such a facility. Composting toilet systems could be considered to meet this proposed definition.
Requirement under current rule.	The output of composting toilets is considered to be septage by the department and the Department of Health, but a permit has not been required for its management. If the material is sent to a permitted facility for management, the operation is exempt from the rule. If the material is land applied, the operation must meet the management and recordkeeping requirements.
Why revision is needed.	(A) Clarification for those who currently transfer the material for management. (B) To avoid a requirement that small-scale composting toilet systems obtain a permit if

	land-applying, as requiring a permit would be impractical.
Suggested revisions that were more stringent.	Require a full permit without exemptions. This approach was rejected because it was deemed to be infeasible from a practical, regulatory standpoint and overly burdensome on the owners of such systems—especially small-scale systems.
Addressed in survey? If “no”, why?	No. This was not addressed in the survey because the department has not been requiring a permit for composting toilets. Thus, this is more of a formalization of program policy than a significant change.
Was the proposal significantly amended after the survey was conducted? If “yes”, explain.	No.

Transportation

- Imposed a requirement that facilities that transport or contract for the transportation of their solids submit a *Spill Prevention & Response Plan*.

Information on the Proposed Amendment and Its Assessment in the Survey

Comments/additional information.	This is already a requirement in the biosolids general permit.
Requirement under current rule.	There is no requirement for a plan.
Why revision is needed.	(A) To minimize the risk of spillage of biosolids or sewage sludge during transportation. (B) To reduce the risk of impacts to human health and the environment from pollutants and/or pathogens when a spill occurs during transportation. (C) To provide consistency with the biosolids general permit.
Suggested revisions that were more stringent.	Impose a 24-hour notice requirement for spills in addition to the plan. This was rejected because such a requirement is more appropriate in the biosolids general permit
Addressed in survey? If “no”, why?	Yes.
Was the proposal significantly amended after the survey was conducted? If “yes”, explain.	No.

Class A-Alternatives 3 & 4

- Imposed a requirement that facilities proposing to use Class A-Alternatives 3 or 4 receive pre-approval from the department for a sampling plan prior to initiating sampling.

Information on the Proposed Amendment and Its Assessment in the Survey

Comments/additional information.	Class A biosolids is considered to be effectively pathogen-free. These alternatives allow facilities to show Class A through testing rather than imposing a process requirement as required under all other Class A alternatives. Such material can be distributed to the public. The department and EPA have concerns about the testing methods and the accuracy of results. Program policy already requires this for Class A-Alternative 4.
Requirement under current rule.	No sampling plan is required to be submitted to the department. The only requirement is that sampling be “representative” of the material being tested.
Why revision is needed.	(A) Protection of human health and the environment from pathogens. (B) Consistency with program policy which has been in place for Class A-Alternative 4 for nearly 2 years.
Suggested revisions that were more stringent.	Delete the alternatives from the rule entirely. This was rejected because the alternatives provide permittees with an option to show Class A that may not be available otherwise.
Addressed in survey? If “no”, why?	Yes.
Was the proposal significantly amended after the survey was conducted? If “yes”, explain.	Yes. After reviewing comments, reviewing numerous technical documents, and discussing the issue with a senior microbiologist from EPA, the department decided to eliminate the two alternatives entirely from the rule. The 3 facilities now using either of the alternatives would need to either use another Class A alternative (for example, Alternative 6, Equivalency Determination) or manage the material as Class B.

Biosolids Sold or Given Away In a Bag or Other Container

- Imposed a requirement that biosolids sold/given away in a bag or other container meet the criteria to be classified as exceptional quality.

Information on the Proposed Amendment and Its Assessment in the Survey

Comments/additional information.	Such material can (and usually is) distributed to the public. This is already a requirement in the biosolids general permit. The federal biosolids rule
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	is expected to be revised in the future to require this also.
Requirement under current rule.	The current rule allows biosolids to be distributed to the public via sale/give away in a bag/other container even if they exceed the Table 3 pollutant limits as long as they do not exceed the Table 1 limits and information on how much can be applied annually is provided to the recipient.
Why revision is needed.	(A) Protection of human health and the environment from pollutants. (B) Consistency with the biosolids general permit. (C) Preparation for anticipated federal program changes.
Suggested revisions that were more stringent.	None.
Addressed in survey? If “no”, why?	Yes.
Was the proposal significantly amended after the survey was conducted? If “yes”, explain.	No.

Reporting

- Imposed a requirement that all applicable facilities submit an Annual Biosolids Report and submit all requested information.

Information on the Proposed Amendment and Its Assessment in the Survey

Comments/additional information.	Each year the department sends a letter and a copy of a report form to all facilities. This is considered to be a written request from the department for completion of an annual report.
Requirement under current rule.	Only majors and Class I facilities have to report. Others must report only upon a request from the department.
Why revision is needed.	(A) Information obtained in the reports is deemed necessary to ensure compliance with the rule. (B) Implementation of a long-standing program policy
Suggested revisions that were more stringent.	None.
Addressed in survey? If “no”, why?	Yes.
Was the proposal significantly amended after the survey was conducted? If “yes”, explain.	No.

Timeline for Submitting Permit Applications

- Imposed a requirement for applications for coverage under a new biosolids general permit to be submitted within 90 days following the issuance of the permit but allowed for a case-by-case extension up to 180 days.

Information on the Proposed Amendment and Its Assessment in the Survey

Comments/additional information.	This is already a requirement under the biosolids general permit for some facilities (majors, Class I facilities, out-of-compliance minors, private septage management facilities, and beneficial use facilities).
Requirement under current rule.	The date of submittal depends on facility size, class, compliance status, and timelines under other permits. and compliance
Why revision is needed.	Simplification of requirements and to provide an allowance for facility-specific considerations.
Suggested revisions that were more stringent.	None.
Addressed in survey? If “no”, why?	Yes.
Was the proposal significantly amended after the survey was conducted? If “yes”, explain.	No.

Research Exemption

- Provided exemptions from the reporting and permitting requirements for research projects conducted in accordance with a department-approved research plan and occurring on 10 acres or less.

Information on the Proposed Amendment and Its Assessment in the Survey

Comments/additional information.	The department 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.
Requirement under current rule.	Research projects are required to obtain a permit and to go through the entire permitting process.
Why revision is needed.	Simplification of the requirements for legitimate, useful research.
Suggested revisions that were more stringent.	Require a permit without exemptions. This was rejected because the department does not believe that requiring a permit for small-scale research substantially enhances protection of human health and the environment.
Addressed in survey? If “no”, why?	Yes.
Was the proposal significantly	No.

amended after the survey was conducted? If “yes”, explain.	
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Public Notice

- Imposed a requirement for public notice each permit cycle for facilities that land apply non-exceptional quality biosolids but limited the extent of the notice.

Information on the Proposed Amendment and Its Assessment in the Survey

Comments/additional information.	The current draft 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.
Requirement under current rule.	The department’s interpretation has been that notice is not required each permit cycle if the facility has previously conducted notice, is in compliance, and is not proposing any significant changes. However, EPA objected to this interpretation.
Why revision is needed.	(A) Deemed necessary to be more consistent with the federal biosolids program policy. (B) Simplification of where notice is conducted, resulting in a reduction in notice costs.
Suggested revisions that were more stringent.	Require notice at land application sites and in the newspaper. This approach was rejected because posting in newspapers (which requires that information on site locations be included) is deemed to be adequate to reach the interested public without providing an undue economic burden to the permittee. Posting at sites is already required during the initial public notice process. Posting at sites is often overlooked and only reaches a small portion of the public in any case.
Addressed in survey? If “no”, why?	Yes.
Was the proposal significantly amended after the survey was conducted? If “yes”, explain.	No.

- 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 applying non-exceptional quality biosolids, and the facility is not proposing any significant changes in biosolids management practices.

Information on the Proposed Amendment and Its Assessment in the Survey

Comments/additional information.	This is related to #12, above.
Requirement under current rule.	This was the interpretation of the current rule for all such facilities, including those that land apply

	non-exceptional quality biosolids. However, EPA objected to this interpretation
Why revision is needed.	Clarification.
Suggested revisions that were more stringent.	Require full public notice for all facilities each permit cycle. This approach was rejected because it was deemed to be unnecessary and overly burdensome to permittees who are not engaging in any activities that pose a risk to human health or the environment. The focus of public notice should be on operations that land apply non-exceptional quality biosolids.
Addressed in survey? If “no”, why?	No. This was not specifically addressed in the survey because this was already the interpretation of the current rule.
Was the proposal significantly amended after the survey was conducted? If “yes”, explain.	No.

- Eliminated the need to do any notice if proposing an “insignificant” change either when applying for coverage under a new general permit or when proposing insignificant changes while covered under a permit.

Information on the Proposed Amendment and Its Assessment in the Survey

Comments/additional information.	Generally an “insignificant” change is one that improves the quality of biosolids or one that would result in a reduction in management requirements.
Requirement under current rule.	Any change in management after final coverage is issued—whether significant or insignificant—requires full public notice.
Why revision is needed.	(A) Simplification of requirements. (B) To not discourage changes to biosolids management programs that improve the quality of the material or reduce the risk to human health or the environment.
Suggested revisions that were more stringent.	None.
Addressed in survey? If “no”, why?	Yes.
Was the proposal significantly amended after the survey was conducted? If “yes”, explain.	No.

- Reduced the number of newspaper notices, when required, from 2 to 1.

Information on the Proposed Amendment and Its Assessment in the Survey

Comments/additional information.	Only 1 notice is required under the general permit rule (Chapter 173-226 WAC) and the SEPA rule (Chapter 197-11 WAC).
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Requirement under current rule.	When newspaper notice is required, 2 notices must be run at least 1 week apart, and a public comment period begins after the 2 nd notice.
Why revision is needed.	(A) Simplification. (B) Reduction in public notice costs.
Suggested revisions that were more stringent.	Maintain the current requirement of 2 notices. This approach was rejected because the 2 nd notice seems unnecessarily burdensome without achieving a substantial increase in the likelihood of reaching the public.
Addressed in survey? If “no”, why?	Yes.
Was the proposal significantly amended after the survey was conducted? If “yes”, explain.	No.

- Added a requirement that facilities submit a copy of an *Affidavit of Publication* at the completion of newspaper notice when newspaper notice is required.

Information on the Proposed Amendment and Its Assessment in the Survey

Comments/additional information.	The department already commonly requires submittal of an <i>Affidavit of Publication</i> in order to ensure that newspaper notice was run correctly.
Requirement under current rule.	The permittee must provide a copy of the notice and an explanation of all places where and when the notice was or will be published or posted.
Why revision is needed.	Simplification of requirements.
Suggested revisions that were more stringent.	None.
Addressed in survey? If “no”, why?	No. This was not addressed in the survey because the cost was deemed to be minimal. An <i>Affidavit of Publication</i> is already being sent to the facility when they’ve run a newspaper notice. The additional cost associated with this new requirement would simply be the cost of copying and mailing (or emailing) what is typically a 1-page document.
Was the proposal significantly amended after the survey was conducted? If “yes”, explain.	Yes. In response to comments received, the department decided to add an allowance for a facility to submit a copy of the notice that was run in place of the affidavit. This was already allowed under the existing rule.

Reduction in Recognizables

- Imposed a requirement for a 95% removal of “manufactured inert wastes” for all biosolids and septage. Facilities will have 2 years to attain this standard.

Information on the Proposed Amendment and Its Assessment in the Survey

Comments/additional information.	The department is required to have a state biosolids program that encourages the maximum beneficial use of biosolids. The existence of garbage in biosolids limits the options for beneficial use. Grinding has been allowed to reduce recognizables, however, grinding only reduces the size of garbage in biosolids, it does not remove it.
Requirement under current rule.	Only septage has any form of requirement regarding recognizables. This requirement mandates that screening or grinding or another approved method be used to remove or reduce recognizables in septage.
Why revision is needed.	(A) Protection of human health from the potential to come into contact with sharps in unscreened biosolids. (B) Ensure that only garbage-free material is land-applied or distributed to the public. (C) Maximize the opportunities for beneficial use of all biosolids products. (D) Apply a consistent approach for septage and other biosolids.
Suggested revisions that were more stringent.	None.
Addressed in survey? If “no”, why?	Yes.
Was the proposal significantly amended after the survey was conducted? If “yes”, explain.	Yes. In response to comments received, the department decided to replace “manufactured inert wastes” with “manufactured inerts” because the latter already had a definition in Ecology’s, <i>Interim Guidelines for Compost Quality</i> . More importantly, the department decided to remove the objective standard of a 95% removal and to replace this with the subjective standard of “significantly remove manufactured inerts”.

Storage

- Provided exemptions to the storage requirements for storage covered under another environmental permit and for “temporary/small-scale storage”.

Information on the Proposed Amendment and Its Assessment in the Survey

Comments/additional information.	The proposed revision would allow deferral to other environmental permits that address storage and to exempt all temporary/small-scale storage from any permitting requirements unless there is sufficient reason to require a permit. The current rule has no provisions for deferral.
Requirement under current rule.	Storage of solids requires a biosolids permit, and storage must be addressed when applying for a permit
Why revision is needed.	(A) Simplification for permittees. (B) Reduction in the workload for program staff. (C) Elimination of a permitting requirement for storage that does not pose any risk to human health or the environment.
Suggested revisions that were more stringent.	Do not allow exemptions for storage under a non-biosolids permit and require a separate biosolids permit for biosolids storage. This was rejected because it adds another permitting requirement without a clear improvement of protection of human health and the environment. If another permit is adequately protective, the department does not want to unnecessarily impose a separate permit.
Addressed in survey? If “no”, why?	Yes.
Was the proposal significantly amended after the survey was conducted? If “yes”, explain.	No.

- Imposed a requirement that biosolids stored in the field meet one of the vector attraction reduction (VAR) standards or the storer must provide the department with a plan addressing how field storage of non-VAR biosolids will not pose an undue risk to human health.

Information on the Proposed Amendment and Its Assessment in the Survey

Comments/additional information.	Non-VAR biosolids are not considered to be adequately stabilized to reduce their attractiveness to potential vectors. Leaving such biosolids in a field where they are available to potential vectors increases the risk of the transfer of pathogens to humans by vectors.
Requirement under current rule.	Biosolids not meeting a VAR standard can be

	stored in the field as allowed by a permit.
Why revision is needed.	Protection of human health from the potential transfer of pathogens by vectors.
Suggested revisions that were more stringent.	Require that all field-stored biosolids meet VAR standards prior to storage. This was rejected because it could impose an extreme economic hardship upon some permittees, and the department believes that a similar level of protection of human health can be achieved by requiring the storer to submit a plan describing how their storage does not pose an undue risk to human health or how any undue risk posed would be mitigated.
Addressed in survey? If “no”, why?	Yes.
Was the proposal significantly amended after the survey was conducted? If “yes”, explain.	No.

- Provided for the “grandfathering in” of surface impoundments meeting the WAC 173-304-430 requirements but imposed the WAC 173-350-330 surface impoundment requirements for new or upgraded surface impoundments.

Information on the Proposed Amendment and Its Assessment in the Survey

Comments/additional information.	The surface impoundment standards in WAC 173-350-330 were developed in part to address biosolids/sewage sludge/septage storage.
Requirement under current rule.	Storage in surface impoundments must meet the WAC 173-304-430 standards.
Why revision is needed.	Reduce the risk to the environment from the potential release of pollutants in stored biosolids/sewage sludge/septage in surface impoundments.
Suggested revisions that were more stringent.	Impose the WAC 173-350-330 standards on all surface impoundments storing biosolids/sewage sludge/septage, regardless of the date of construction. This approach was rejected because it seemed to be an undue economic burden on facilities currently storing in accordance with the WAC 173-304-430 standards who are not posing a risk to the environment.
Addressed in survey? If “no”, why?	No. This was not addressed in the survey because it is being addressed separately by contacting 4 facilities who have installed surface impoundments under the WAC 173-350-330 standards and by using numbers provided by SWFAP engineers.
Was the proposal significantly amended after the survey was	No.

conducted? If “yes”, explain.	
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Importing/Exporting Biosolids

- Clarified and simplified the requirements for the importation of biosolids from facilities outside the state (includes tribal lands) by requiring an approval but not a permit if bulk material is sent to an Ecology-permitted facility or bagged material is distributed and requiring a full permit if the exporter seeks to manage their own operation within the state, In cases where bulk biosolids are exported into the state, fees would be assessed based upon the percent of material produced that is exported into the state.

Information on the Proposed Amendment and Its Assessment in the Survey

Comments/additional information.	Program policy that has developed has set-up an inconsistent approach for tribal facilities and other out-of-state entities. Currently a few facilities from ID export solids for further treatment into WA, and a few tribal facilities either do the same or send their solids to landfills within the state.
Requirement under current rule.	Not addressed.
Why revision is needed.	(A) Correct the inconsistent approach being taken on solids from tribal lands and those from other states/nations. (B) Simplify the requirements for those who send material to Ecology-permitted facilities. (C) Collect a fair fee from exporters.
Suggested revisions that were more stringent.	Require a full permit and payment of a full fee for any out-of-state facilities sending solids into WA. This approach was rejected because the department believes that if the solids are sent to an Ecology-permitted facility, protection of human health and the environment can be attained without imposition of the burden of a permitting an out-of-state entity and the risk that enforcing such a permit might entail.
Addressed in survey? If “no”, why?	No. This was not addressed in the survey because the change would not impact any existing permittees. Thus, there was no one on the facilities list that could be surveyed.
Was the proposal significantly amended after the survey was conducted? If “yes”, explain.	No.

Record Keeping

- Added a requirement that preparers of biosolids or sewage sludge maintain the following 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.

Information on the Proposed Amendment and Its Assessment in the Survey

Comments/additional information.	The department has consistently requested such information as part of the annual biosolids reports since 1998. Thus, facilities are already keeping such records.
Requirement under current rule.	There is no requirement to maintain these records.
Why revision is needed.	Such information is necessary so that the department can monitor biosolids and sewage sludge management practices across the state.
Suggested revisions that were more stringent.	None.
Addressed in survey? If “no”, why?	No. This was not addressed in the survey because facilities are already maintaining such records and providing such information with their annual biosolids reports.
Was the proposal significantly amended after the survey was conducted? If “yes”, explain.	No.

- Added a requirement that applicers of non-exceptional quality biosolids maintain the following records:
 - The location, by street address, if applicable, a copy of the assessor's plat map(s) with the application area(s) clearly shown 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 biosolids are applied.
 - The number of acres in each site on which biosolids were applied.
 - The date biosolids were applied to each site.
 - The annual nitrogen requirement for the crop or vegetation grown on each site.
 - 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.

Information on the Proposed Amendment and Its Assessment in the Survey

Comments/additional information.	The department has consistently requested such information as part of the annual biosolids reports since 1998. Thus, facilities are already keeping such records.
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Requirement under current rule.	There is no requirement to maintain these records.
Why revision is needed.	Such information is necessary to ensure compliance with the rule and permits.
Suggested revisions that were more stringent.	None.
Addressed in survey? If “no”, why?	No. This was not addressed in the survey because facilities are already maintaining such records and providing such information with their annual biosolids reports.
Was the proposal significantly amended after the survey was conducted? If “yes”, explain.	No.

APPENDIX 2: SURVEY INSTRUMENTS

#1 - Wastewater Treatment Plant and Composter Questionnaire

Thank you for filling out this survey. It will help Ecology estimate the cost of changes to the rule.

Please put in your code _____.

When you answer the questions please consider all your costs including things that people usually forget such as:

- reporting
- record keeping
- compliance costs
- professional services (e.g. lab costs, consultant costs, contractor costs)
- equipment
- supplies
- labor, staff time
- increased administrative costs
- lost sales or revenue

Transportation of Biosolids or Septage

Ecology is proposing to add the current biosolids general permit requirement that all facilities that transport biosolids or septage for management submit a Spill Prevention/Response Plan with the permit application. Ecology previously developed a simple template that facilities can use.

Do you transport biosolids or septage? Yes No

If YES, have you submitted a spill prevention and response plan using the plan template that Ecology developed? Yes No

If YES, how much did it cost you to complete the plan using the template? \$ _____

Class A-Alternatives 3 and 4

(This question should be asked only to: EVERETT, GRANDVIEW, PASCO, and WENATCHEE.)

Ecology is proposing to require that facilities using Class A-Alternatives 3 or 4 receive written, pre-approval of a sampling plan prior to conducting the sampling required for these alternatives. For Class A-Alternative 3, the approval would only have to occur prior to the first sampling event. For Class A-Alternative 4, the approval would have to occur prior to each sampling event.

(a) Do you use Class A-Alternatives 3 or 4? Yes No

If YES, how much did it cost you to write the sampling plan? \$ _____

(b) If you had to wait up to 60 days for approval of your sampling plan, how much would it cost you to hold the material for that time? \$ _____

(c) If you can't hold the material for up to 60 days, how much would it cost you to manage the material in another manner? \$ _____

Sale or Giveaway in a Bag or Other Container

(This question should be asked only to: ARLINGTON, BUCKLEY, CENTRAL WWTP #1 (TACOMA), CHENEY, CLARK PUBLIC UTILITIES (LaCENTER), COLUMBIA COMPOST, GRANITE FALLS, GROCO, INC., LANGLEY, LYNDEN, MILLER CREEK, OMAK, THREE RIVERS REGIONAL, and WESTPORT.)

Ecology is proposing to implement the current biosolids general permit requirement that biosolids that are sold or given away in a bag or other container (i.e. one holding less than 1 metric ton; e.g. a pick-up truck) meet the exceptional quality standards.

Do you sell or give away biosolids in quantities of less than 1 metric ton in a bag or other container? Yes No

If YES, do the biosolids always meet Table 3 limits? Yes No

If NO, how much would it cost you to handle the biosolids in another way (include forgone sales)? \$ _____

Submittal of an Annual Biosolids Report

Under the current rule only major WWTPs and septage management facilities are absolutely required to submit an annual report. However, Ecology can request a report from others and has always done so. Ecology is proposing to implement the current biosolids general permit requirement that every facility submit an annual report.

Is your facility considered to be a "minor" facility (i.e. it serves <10,000 persons AND has design flow rate of <1 million gallons/day)? Yes No

If YES, what does it cost you to submit an annual biosolids report? \$ _____

Timing for Submittal of a Permit Application

Ecology is proposing to require all facilities to submit an application for coverage under an applicable general permit within 90 days after the permit is issued. Under the current rule, there are widely varying requirements.

(a) Have you applied for coverage under the biosolids general permit? Yes No

If YES, please estimate the cost of your last application. \$ _____

(b) Were you allowed more than 90 days after the general permit was issued in order to apply for coverage? Yes No

If YES, please estimate how much more it would have cost you to submit the application within 90 days? \$ _____

Public Notice Requirements for Non-exceptional Quality Biosolids or Septage

Ecology is proposing to require that public notice be conducted by all facilities that apply non-exceptional quality (non-EQ) biosolids or septage each time they apply for coverage under a new general permit. However, the notice would only have to be posted one time in a newspaper and not at the land application sites if the sites have been posted in the past.

(a) How much did it cost you the last time you had to do full public notice for your permit (e.g. newspaper posting, site posting, SEPA)? \$ _____ N/A

(b) How much would you have saved if you only had to do a single public notice in the newspaper instead of two notices? \$ _____ N/A

(c) How much would you have saved if you did not have to post your land application sites? \$ _____ N/A

Insignificant Changes

Ecology is proposing to eliminate the need to do public notice if a facility is proposing “insignificant changes” to their biosolids program. The current rule defines “significant change” generally as changes that result in more stringent management requirements (e.g. changing from a grain crop to a root crop) or changes to certain requirements (e.g. a reduction in buffer distances or a reduction in site monitoring).

In the past 5 years, how often have you proposed changes to your biosolids management practices that would be considered to be “insignificant”? _____

Exemptions for Certain Research

Ecology is proposing to exempt certain research projects from the permitting and reporting requirements of the rule on sites that are less than 10 acres.

Have you engaged in or had your non-EQ biosolids or septage used for research on plots of land that are 10 acres or less and that were not previously covered under a permit? Yes No

If YES, what was the cost of permitting the site and reporting to Ecology for that site? \$ _____

Screening Requirements

Ecology is proposing to require screening of all biosolids (including septage) so that the final product is at least 95% free of garbage prior to end use. Grinding will be allowed only after initial screening.

Do you currently handle biosolids or septage that HAS NOT met this standard? Yes No

If YES, please estimate what it would cost you to install a screen and associated equipment and other related costs in order to achieve this standard? \$ _____

Deferral to Other Permits for Storage

Ecology is proposing to allow for the deferral to other environmental permits for certain storage of biosolids or septage (e.g. deferral to NPDES Permits, State Waste Discharge Permits, Conditional Use Permits, Solid Waste Permits).

Do you currently store biosolids or septage at your facility (note: this would include storage in tanks or similar devices and storage in lagoons, but it would not include material in treatment lagoons)? Yes No

If YES, do you have another environmental permit that addresses this storage? Yes No

If YES, please estimate what would it save you if you did not have to address this storage in your biosolids permit? \$ _____

Field-storage and Vector Attraction Reduction Requirements

Ecology is proposing to require that field-stored biosolids and septage either meet one of the vector attraction reduction (VAR) standards prior to storage or that a simple plan be submitted that addresses how the current storage minimizes risk to human health.

Do you store biosolids in the field prior to application that has not met the VAR standards? Yes No

If YES: Please estimate the cost of writing and submitting a simple plan addressing how you would minimize risk to human health (e.g. a plan might show that the site is a sufficiently lengthy distance from any neighboring properties or a plan might provide for some sort of temporary cover or a plan might state that material is only stored during winter when cold temperatures and snow cover limit pathogen activity and exposure to potential vectors).
\$ _____

LAST QUESTION

In order for us to calculate the relative impacts of the rule changes, the law requires us to calculate the costs on a per employee basis. For this reason we are asking, how many employees does your entire company, agency, or utility have? _____

#2 - Septage Management Facility Questionnaire

Thank you for filling out this survey. It will help Ecology estimate the cost of changes to the rule.

Please put in your code _____.

When you answer the questions please consider all your costs including things that people usually forget such as:

- reporting
- record keeping
- compliance costs
- professional services (e.g. lab costs, consultant costs, contractor costs)
- equipment
- supplies
- labor, staff time
- increased administrative costs
- lost sales or revenue

Management of Unstabilized Septage

Ecology is proposing to require that Class II septage and unstabilized Class III septage either be managed as biosolids or be taken to a WWTP unless it's mixed with Class I septage at a rate of 25% or less.

Do you currently land-apply Class II septage or unstabilized Class III septage (Do NOT count if mixed with Class I septage at a rate of 25% or less.)? Yes No.

If YES, please estimate the cost for either managing the material as biosolids from a WWTP (This would include the cost of sampling for metals and nitrogen and meeting at least the Class B pathogen reduction standards) OR the cost of taking the material to a WWTP.

\$ _____

Site Management Requirements for Septage

Ecology is proposing to implement the current general permit requirement that the same site management and access restrictions apply to all septage whether it has been pH-adjusted or not.

Do you now or have you ever applied pH-adjusted septage to:

- (a) Land used for grazing cattle? Yes No
(b) Land with a high potential for public exposure? Yes No
(c) Land with a low potential for public exposure? Yes No

If you answered YES to (a), did you allow livestock to graze within 30 days? Yes No

If YES, what would it cost you to wait 30 days? \$ _____

If you answered YES to (b), did you restrict public access for 1 year? Yes No

If NO, what would it cost you to restrict public access for 1 year (e.g. site posting)?
\$ _____

If you answered YES to (c), did you restrict public access for 30 days? Yes No

If NO, what would it cost you to restrict public access for 30 days (e.g. site posting)?
\$ _____

Transportation of Biosolids or Septage

Ecology is proposing to add the current biosolids general permit requirement that all facilities that transport biosolids or septage for management submit a Spill Prevention/Response Plan with the permit application. Ecology previously developed a simple template that facilities can use.

Do you transport biosolids or septage? Yes No

If YES, have you submitted a spill prevention and response plan using the plan template that Ecology developed? Yes No

If YES, how much did it cost you to complete the plan using the template? \$ _____

Submittal of an Annual Biosolids Report

(This question should only be asked of: B & B FARMS and CHEYNE.)

Under the current rule only major WWTPs and septage management facilities are absolutely required to submit an annual report. However, Ecology can request a report from others and has always done so. Ecology is proposing to implement the current biosolids general permit requirement that every facility submit an annual report.

What does it cost you to submit an annual biosolids report for the BUF portion of your program?
\$ _____

Timing for Submittal of a Permit Application

Ecology is proposing to require all facilities to submit an application for coverage under an applicable general permit within 90 days after the permit is issued. Under the current rule, there are widely varying requirements.

(a) Have you applied for coverage under the biosolids general permit? Yes No

If YES, please estimate the cost of your last application. \$ _____

(b) Were you allowed more than 90 days after the general permit was issued in order to apply for coverage? Yes No

If YES, please estimate how much more it would have cost you to submit the application within 90 days? \$ _____

Public Notice Requirements for Non-exceptional Quality Biosolids or Septage

Ecology is proposing to require that public notice be conducted by all facilities that apply non-exceptional quality (non-EQ) biosolids or septage each time they apply for coverage under a new general permit. However, the notice would only have to be posted one time in a newspaper and not at the land application sites if the sites have been posted in the past.

(a) How much did it cost you the last time you had to do full public notice for your permit (e.g. newspaper posting, site posting, SEPA)? \$ _____ N/A

(b) How much would you have saved if you only had to do a single public notice in the newspaper instead of two notices? \$ _____ N/A

(c) How much would you have saved if you did not have to post your land application sites? \$ _____ N/A

Insignificant Changes

Ecology is proposing to eliminate the need to do public notice if a facility is proposing “insignificant changes” to their biosolids program. The current rule defines “significant change” generally as changes that result in more stringent management requirements (e.g. changing from a grain crop to a root crop) or changes to certain requirements (e.g. a reduction in buffer distances or a reduction in site monitoring).

In the past 5 years, how often have you proposed changes to your biosolids management practices that would be considered to be “insignificant”? _____

Exemptions for Certain Research

Ecology is proposing to exempt certain research projects from the permitting and reporting requirements of the rule on sites that are less than 10 acres.

Have you engaged in or had your non-EQ biosolids or septage used for research on plots of land that are 10 acres or less and that were not previously covered under a permit? Yes No

If YES, what was the cost of permitting the site and reporting to Ecology for that site? \$ _____

Screening Requirements

Ecology is proposing to require screening of all biosolids (including septage) so that the final product is at least 95% free of garbage prior to end use. Grinding will be allowed only after initial screening.

Do you currently handle biosolids or septage that HAS NOT met this standard? Yes No

If YES, please estimate what it would cost you to install a screen and associated equipment and other related costs in order to achieve this standard? \$ _____

Deferral to Other Permits for Storage

Ecology is proposing to allow for the deferral to other environmental permits for certain storage of biosolids or septage (e.g. deferral to NPDES Permits, State Waste Discharge Permits, Conditional Use Permits, Solid Waste Permits).

Do you currently store biosolids or septage at your facility (note: this would include storage in tanks or similar devices and storage in lagoons, but it would not include material in treatment lagoons)? Yes No

If YES, do you have another environmental permit that addresses this storage? Yes No

If YES, please estimate what would it save you if you did not have to address this storage in your biosolids permit? \$ _____

Field-storage and Vector Attraction Reduction Requirements

Ecology is proposing to require that field-stored biosolids and septage either meet one of the vector attraction reduction (VAR) standards prior to storage or that a simple plan be submitted that addresses how the current storage minimizes risk to human health.

Do you store biosolids in the field prior to application that has not met the VAR standards? Yes No

If YES: Please estimate the cost of writing and submitting a simple plan addressing how you would minimize risk to human health (e.g. a plan might show that the site is a sufficiently lengthy distance from any neighboring properties or a plan might provide for some sort of temporary cover or a plan might state that material is only stored during winter when cold temperatures and snow cover limit pathogen activity and exposure to potential vectors).
\$ _____

LAST QUESTION

In order for us to calculate the relative impacts of the rule changes, the law requires us to calculate the costs on a per employee basis. For this reason we are asking, how many employees does your entire company, agency, or utility have? _____

#3 - Biosolids Beneficial Use Questionnaire

Thank you for filling out this survey. It will help Ecology estimate the cost of changes to the rule.

Please put in your code _____.

When you answer the questions please consider all your costs including things that people usually forget such as:

- reporting
- record keeping
- compliance costs
- professional services (e.g. lab costs, consultant costs, contractor costs)
- equipment
- supplies
- labor, staff time
- increased administrative costs
- lost sales or revenue

Transportation of Biosolids or Septage

Ecology is proposing to add the current biosolids general permit requirement that all facilities that transport biosolids or septage for management submit a Spill Prevention/Response Plan with the permit application. Ecology previously developed a simple template that facilities can use.

Do you transport biosolids or septage? Yes No

If YES, have you submitted a spill prevention and response plan using the plan template that Ecology developed? Yes No

If YES, how much did it cost you to complete the plan using the template? \$ _____

Submittal of an Annual Biosolids Report

Under the current rule only major WWTPs and septage management facilities are absolutely required to submit an annual report. However, Ecology can request a report from others and has always done so. Ecology is proposing to implement the current biosolids general permit requirement that every facility submit an annual report.

What does it cost you to submit an annual biosolids report? \$ _____

Timing for Submittal of a Permit Application

Ecology is proposing to require all facilities to submit an application for coverage under an applicable general permit within 90 days after the permit is issued. Under the current rule, there are widely varying requirements.

(a) Have you applied for coverage under the biosolids general permit? Yes No

If YES, please estimate the cost of your last application. \$ _____

- (b) Were you allowed more than 90 days after the general permit was issued in order to apply for coverage? Yes No

If YES, please estimate how much more it would have cost you to submit the application within 90 days? \$ _____

Public Notice Requirements for Non-exceptional Quality Biosolids or Septage

Ecology is proposing to require that public notice be conducted by all facilities that apply non-exceptional quality (non-EQ) biosolids or septage each time they apply for coverage under a new general permit. However, the notice would only have to be posted one time in a newspaper and not at the land application sites if the sites have been posted in the past.

- (a) How much did it cost you the last time you had to do full public notice for your permit (e.g. newspaper posting, site posting, SEPA)? \$ _____ N/A
- (b) How much would you have saved if you only had to do a single public notice in the newspaper instead of two notices? \$ _____ N/A
- (c) How much would you have saved if you did not have to post your land application sites? \$ _____ N/A

Insignificant Changes

Ecology is proposing to eliminate the need to do public notice if a facility is proposing “insignificant changes” to their biosolids program. The current rule defines “significant change” generally as changes that result in more stringent management requirements (e.g. changing from a grain crop to a root crop) or changes to certain requirements (e.g. a reduction in buffer distances or a reduction in site monitoring).

In the past 5 years, how often have you proposed changes to your biosolids management practices that would be considered to be “insignificant”? _____

Exemptions for Certain Research

Ecology is proposing to exempt certain research projects from the permitting and reporting requirements of the rule on sites that are less than 10 acres.

Have you engaged in or had your non-EQ biosolids or septage used for research on plots of land that are 10 acres or less and that were not previously covered under a permit? Yes No

If YES, what was the cost of permitting the site and reporting to Ecology for that site? \$ _____

Screening Requirements

Ecology is proposing to require screening of all biosolids (including septage) so that the final product is at least 95% free of garbage prior to end use. Grinding will be allowed only after initial screening.

Do you currently handle biosolids or septage that HAS NOT met this standard? Yes No

If YES, please estimate what it would cost you to install a screen and associated equipment and other related costs in order to achieve this standard? \$ _____

Deferral to Other Permits for Storage

Ecology is proposing to allow for the deferral to other environmental permits for certain storage of biosolids or septage (e.g. deferral to NPDES Permits, State Waste Discharge Permits, Conditional Use Permits, Solid Waste Permits).

Do you currently store biosolids or septage at your facility (note: this would include storage in tanks or similar devices and storage in lagoons, but it would not include material in treatment lagoons)? Yes No

If YES, do you have another environmental permit that addresses this storage? Yes No

If YES, please estimate what would it save you if you did not have to address this storage in your biosolids permit? \$ _____

Field-storage and Vector Attraction Reduction Requirements

Ecology is proposing to require that field-stored biosolids and septage either meet one of the vector attraction reduction (VAR) standards prior to storage or that a simple plan be submitted that addresses how the current storage minimizes risk to human health.

Do you store biosolids in the field prior to application that has not met the VAR standards? Yes No

If YES: Please estimate the cost of writing and submitting a simple plan addressing how you would minimize risk to human health (e.g. a plan might show that the site is a sufficiently lengthy distance from any neighboring properties or a plan might provide for some sort of temporary cover or a plan might state that material is only stored during winter when cold temperatures and snow cover limit pathogen activity and exposure to potential vectors).
\$ _____

LAST QUESTION

In order for us to calculate the relative impacts of the rule changes, the law requires us to calculate the costs on a per employee basis. For this reason we are asking, how many employees does your entire company, agency, or utility have? _____

APPENDIX 3: COST SURVEY RESULTS

Note: Ecology based the results in this appendix on surveys received before December 20, 2006. The results may not include last minute updates from late surveys and may be revised if additional respondents send in their survey instruments.

Survey Data:

The survey sample covered 7% of WWTPs (given a 59% response rate), 45% of the SMFs and all of the BUFs.

For purposes of this analysis large facilities are those with employment of over 50 people and small facilities may have up to 50 people. The 4 large facilities have an average of 2400 employees. The 34 small facilities have an average of 7 employees. 5 respondents did not report the number of employees.

Some facilities are part of government. These facilities have been incorporated into the survey because they sometimes have data on costs that will eventually affect businesses. Once data was collected, the governmental facilities could not be separated out because the data was collected in such a way that the identity of the respondent is unknown. This anonymity is necessary in order for businesses and individuals to feel comfortable giving accurate data to Ecology.

Septage

Survey Data on Class II and unstabilized Class III land application: The total cost of this is about \$201,000 per year with a 5-year present value of \$963,000. Only 3 respondents land apply Class II or unstabilized Class III septage at rate greater than 25% of the load. These respondents gave widely varying numbers for the costs. The estimates ranged from \$500 per load, and one respondent gave a cost of \$200,000. This latter respondent also gave other estimates well outside of the normal range of values given.

Survey Data on restricting access: Respondents found this question confusing. The estimated cost is \$1,600 per year with a 5-year present value of \$7,600. One respondent who applies septage on land and then allows cows on it indicates the cost will be \$200 per month to keep the cows off. One respondent applies septage to land with a high potential for public exposure and reported it may cost between \$200,000 and \$400,000 if they have to restrict access for 1 year. They believe they may lose the land use. However they already post the area and thus would be in compliance. Others report lower costs in the range of \$20 to \$100 for a 1-year restriction. For respondents applying on land with a low potential for public exposure the expected costs ranged from \$50 to \$150 for a 30 day restriction.

Transportation

Survey Data: The total cost of this single point in time requirement is approximately \$48,400.⁴ Over half of the respondents report that they transport biosolids. This varies by type of respondent: 73% of SMFs transport while only 40% of BUFs transport. Nearly half of those (23% of the total) who transport used the template to write a spills plan. Those using the template reported average costs of \$1,040. One company reported a very high cost, \$10,000. Prior to the development of the template, in 2004, facilities reported average costs of \$650 to write the spill plan on their own. It is unlikely that the template raised the costs. The \$10,000 reported cost is 44 standard deviations higher than the average for all the other businesses. For all other businesses the average reported cost was \$245. Ecology will use the \$10,000 for that company and the lower value for extrapolation to other facilities.

For those facilities reporting costs, the average cost per employee for small facilities with fewer than 50 employees was \$72. For facilities, with over 50 employees, the cost was \$0.11 per employee.

Class A-Alternatives 3 & 4

Survey Data: The respondents using Class A Alternatives 3 and 4 indicated the cost of holding waste for 60 days ranged from \$0 to \$100,000. The total cost of changes due to this requirement are expected to be \$100,000. The respondent who could not hold it indicated that the cost of alternative storage/management would be \$12,500 however they indicate they don't use the Alternative 3 and 4. The costs for the only large facility affected were \$0 and are lower than the costs for the small facility of \$6,250.

Biosolids Sold or Given Away In a Bag or Other Container

Survey Data: No respondents reported any costs related to biosolids that are sold or given away.

Reporting

Survey Data: 32% of the respondents report they did submit an annual biosolids report. Respondents who were able to report on the cost of producing an annual report indicated an average cost of \$1,695. The expected total cost of newly required biosolids reports is \$279,000 with a 5-year present value of \$1.3 million. Within this group some of the respondents reported employment. The average cost per employee that small facilities provided was \$527. The average cost per employee reported by large facilities was \$0.24.

Timeline for Submitting Permit Applications

Survey Data: 30% of the respondents report that they had more than 90 days to submit their permit application. These respondents indicated an additional cost of \$21,800 to submit the application within 90 days. This cost includes an outlier. One facility reported the added cost would be \$10,000, where all other applicants indicated it would cost between \$0 and \$500. The average without this facility is \$109. The \$10000 figure is 91 standard deviations above the

⁴ Based on Average cost for WWTP*number of WWTPs*percent affected+ Average cost for SMFs*number of SMFs*percent affected + Average cost for BUF*number of BUFs*percent affected)+High Cost Outlier

mean value without the facility. Thus the mean without the facility is used for general application. The estimated cost of this proposed amendment is \$21,300.

Only one of the respondents who indicated they had more than 90 days to submit their permit application also had over 50 employees. That facility had zero costs. The remaining small businesses had costs of \$54 per employee.

Research Exemption

Survey Data: Only 2 respondents had research projects spreading biosolids on plots of land less than 10 acres. The average savings reported is \$6,865.

Public Notice

Survey Data: The average reported savings for the change in public notice requirements for non-exceptional biosolids is \$272. For small facilities the savings is \$59 per employee and for large facility it is \$3.75.

Survey Data: The average number of times that respondents proposed an insignificant change to their program over the last 5 years was .59 per respondent. This would mean an average savings of \$160 per facility over the life of a permit. The average savings per employee for small facilities is \$22.76 and for large facilities is \$0.06. The present value of total savings is estimated to be \$32,000.

Reduction in Recognizables/Screening Requirements

Survey Data: 13 respondents reported that they handle biosolids or septage that does not meet a 95% garbage free level. For these businesses, the average actual cost or expected cost of meeting the requirements \$57,000. All WWTP plants reported costs of over \$85,000. SMFs reported costs from \$500 to \$35,000. No BUFs reported costs. The expected cost of adding equipment that allows screening for garbage is \$1 million.

Small facilities reported average costs of \$9,200 per employee. Only one large facility reported costs of \$405 per employee. One company indicated they will be unable to comply, given their current lagoon system.

Storage

Survey Data: 7 respondents reported that they store septage and have another environmental permit that they could use to defer the need for new permit deferral. For these respondents, the average expected savings is \$265. The average savings per employee for small facilities is \$28. The average savings per employee for large facilities is \$1.25.

Survey Data: Only 2 businesses reported that they field store biosolids and septage prior to meeting the vector attraction reduction standards. These respondents expect average costs of \$275 to write a plan to show how they will reduce the risk to human health. All these respondents are small facilities. The average cost per employee is \$55. The total present value of costs to write plans show reducing human health risks is expected to be \$843.