As required by

The Washington State Administrative Procedures Act

Chapter 34.05 RCW

RESPONSIVENESS SUMMARY

FOR THE

Draft Multiyear PBT Chemical Action Plan Schedule

Publication: 07-07-015

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Draft Multiyear PBT Chemical Action Plan Schedule

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Washington State Department of Ecology

January 2007

Publication: 07-07-015

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I. Introduction

In December, 2000 Ecology released its *PBT Strategy*, (Ecology Publication # 00-03-054) which identified actions to reduce and phase-out existing sources of risk to human health and the environment caused by persistent bioaccumulative toxins (PBTs). Activities to address PBTs include the development of a "PBT rule" (WAC 173-333), which was adopted in February 2006.

Created at the direction of then-Governor Locke and the 2004 Legislature, Ecology developed the PBT Rule to establish specific criteria for identifying PBTs and a clear process for developing chemical action plans (CAPs) to address their impacts. CAPs for specific high-priority chemicals are the primary means by which specific reduction actions and activities will be developed and implemented.[1]

The PBT rule includes a list of 27 chemicals. These chemicals are comprised of individual PBTs, PBT chemical groups, which are referred to as the "PBT List" and a separate listing of "metals of concern", which is referred to as the "Metals of Concern List". The rule also describes a requirement for Ecology, in consultation with the Department of Health (Health) to develop a "multiyear schedule" for the preparation of CAPs. A process is outlined in the rule for prioritizing chemicals on the PBT List and Metals of Concern List for action, explaining the rationale for their ranking, and laying out timelines for completion. The result of that process is the Multiyear Schedule.

Ecology released the draft "Multiyear PBT Chemical Action Plan Schedule" (Ecology publication # 06-07-025) on September 20, 2006 for 60 days of public review and comment. The 60 day public comment period ended on November 20, 2006.

Ecology made changes to the Multiyear PBT Chemical Action Plan Schedule document, where appropriate, to improve clarity and to address comments received during the comment period. These changes are described in Part II of this document. Part III of this document identifies which organizations and individuals submitted comments and Ecology's responses to those comments. Comments were received from one individual and three organizations. Most of the comments were editorial in nature.

All comments have been included in this document. Ecology compiled and summarized the written comments where appropriate to save time and space. The original comment letters comprise part of the official record of the Multiyear PBT Chemical Action Plan Schedule files. These files are available for public review at Ecology's Industrial Section (Department of Ecology headquarters) office in Lacey, Washington. Anyone interested in reading the full text of the comment letters or in obtaining a copy of a particular comment should contact Mike Gallagher at 360/407-6868 or by email at: MGAL461@ecy.wa.gov.

[1] To date, two CAPs have been produced: one for mercury (February 2003), and one for PBDEs (polybrominated diphenyl ethers) (January 2006). T

Comments appear in bold text, followed by Ecology's response in regular text. Our response includes the reasons for making, or not making, changes to the Multiyear PBT Chemical Action Plan Schedule document.

Ecology will send a copy of this response to comments to each individual who provided oral or written comments.

II. Differences Between the Draft and Final PBT Multiyear CAP Schedule

The primary changes made in the document that are different from the draft document include:

1) Title Page: Change *Draft* to *Final*

2) Page v: Revise footnote # 2 to read:
For ease of reading, the PBT List of individual chemicals, chemical groups and metals of concern are referred to throughout the document as "PBTs and metals of concern" or "chemicals," rather than delineating the three categories each time they are referenced.

3) Page 2: Delete references to the 60 day public comment period, now that the comment period has ended.

4) Page 5: Added the term "metals of concern" in the second full paragraph.

5) Page 6: Additional sentences added to end of first full paragraph:

"For the two metals of concern, cadmium and lead, persistence and bioaccumulation values are not applicable, and this is reflected in Tables 4 and 6. In early 2002, the Environmental Protection Agency (EPA) established a Science Advisory Board (SAB) to develop comprehensive cross-agency guidance for assessing the hazards and risks of metals. In March, 2002, Ecology committed to remain consistent with the final EPA Metals Assessment framework. In its draft report, the SAB concluded that the use of bioaccumulation factors and bioconcentration factors for national assessment or hazard ranking procedures for metals should not be used. Additionally, the SAB determined that persistence is a problematic scientific issue for assessing metals hazards and risks. Therefore, until the SAB and EPA provide final guidance in their metals assessment framework, Ecology will use the NA designation for the purposes of ranking lead and cadmium for persistence and bioaccumulation."

6) Page 14, Table 4: For the metals of concern – cadmium and lead – persistence and bioaccumulation values and accompanying ranking scores are revised to NA (Not Applicable)

7) Page 20, Table 6: For the metals of concern – cadmium and lead – persistence and bioaccumulation values and accompanying ranking scores are revised to NA (Not Applicable)

8) Pages 24, 28, and 32 – Added the term "metals of concern" where appropriate.

9) Page 35 – SEDQUAL scores were revised to match SEDQUAL exceedances range.

10) Page 36, Table 9: Change "Frequency of detection in SEDQUAL" to "Cleanup Screening Level/Sediment Quality Standards Exceedances in SEDQUAL". Inserted revised numbers to reflect this change.

11) Pages 37, 38, 39, 40 and 44 – Added the term “metals of concern” where appropriate.

12) Page 45: Revised persistence score and bioaccumulation scores for cadmium and lead to “NA” (Not Applicable).

13) Pages 47, 48, and 49 – Added the term “metals of concern” where appropriate.

14) Page 50: Added the phrase: “*an additional 123 exceedances of the Sediment Quality Standards or Cleanup Screening Levels for cadmium…”* in the second complete paragraph.

15) Page 51: Added the phrase: “*an additional 79 exceedances of the Sediment Quality Standards or Cleanup Screening Levels for HCB…”* in the first complete paragraph, and “*an 11 exceedances of the Sediment Quality Standards or Cleanup Screening Levels for HCBD…”* in the fourth complete paragraph.

16) Page 53: Added the phrase: “*an additional 77 exceedances of the Sediment Quality Standards or Cleanup Screening Levels for lead…”* in the fourth complete paragraph.

17) Page 56: Added the phrase: “*an additional 41 exceedances of the Sediment Quality Standards or Cleanup Screening Levels for PCBs…”* in the fifth complete paragraph.

18) Page 57: Changed the word “sewage sludge” to “biosolids”.

19) Page 57: Delete the word “major” after the word likely in the second paragraph.

20) Page 57: Listed the suspected dioxin sources alphabetically.

21) Page 60: Added the phrase: “*an additional 1,376 exceedances of the Sediment Quality Standards or Cleanup Screening Levels for PAHs…”* in the first complete paragraph.

22) Pages 64, 65, 66, 67, 68, 69, 70, 72, 73, 76, 77, 78, 83, and 84 - Added the term “metals of concern” where appropriate.

23) Page 84: The sentence just above Recommendations – change “has developed” to “will develop”.

24) Page 86: Revised the Relative Ranking and Final Ranking score for cadmium.

25) Pages 96 and 99: Tables A-1 and A-2 – Revised the information on persistence and bioaccumulation for cadmium and lead.

26) Page 109: Added the term “metals of concern” where appropriate.

III. Responsiveness Summary

This chapter contains Ecology's responses to comments received during the public comment period. The Table below contains the comment number, commenter name and organization.

Comment #	Commenter Name	Organization
#1 - 3	Bill Yake	Private Citizen
#4	William J. Adams, PhD	North American Metals Council
#5 - 6	John Dohrmann	Puget Sound Action Team
#7	Daniel Thompson	Department of Ecology

Responses to each comment immediately follow the comment listed in this chapter.

Comment #1:

Commenter: Bill Yake, Private Citizen

The commenter identified two concerns:

- **using national data as a surrogate for Washington and**
- **including criteria where there is no data**

and cited two examples in the document with comments on these two concerns.

For "Levels of Chemical Present in Washington Residents" section, the commenter stated that this measure fails to represent what its title implies. The ranking scores applied to various chemicals are based almost entirely on whether or not the chemical is included in a national biomonitoring study – not on residue concentrations found, but simply on whether or not they were tested for and occasionally detected somewhere in the US.

In the "Uses of the Chemical in Washington" section, the commenter disagreed with the approach of using nationwide production numbers instead of Washington specific numbers. Additionally, the commenter stated that the rank numbers appear to be assigned based on national production with no accounting for the different impacts and toxicity of different chemicals. For example, a pound of dioxin is treated as if it were equal to a pound of lead even though dioxin is more toxic and more carcinogenic than lead.

Ecology Response:

The PBT Rule (Chapter 173-333 WAC) specifies that Ecology prepare a relative ranking that would serve as one of the evaluation factors used to select PBTs for chemical action plan selection and scheduling. The criteria that make up the relative ranking include PBT characteristics, uses of the chemical in Washington, releases of the chemical in Washington, levels present in Washington residents and levels present in Washington residents. This language was agreed upon by the PBT Rule Advisory Committee, which was a broadly represented external workgroup that provided feedback to Ecology in 2004-05 as the PBT Rule was being developed. However, the rule does not specify how Ecology is to conduct this relative ranking in the event that representative data is not available, as is the case for the two situations described by the commenter.

Ecology worked closely with the Department of Health in order to determine and rank the levels of PBTs present in Washington residents. Ideally, the ranking effort would reflect the relative accumulation of different PBTs in people or the relative portion of Washington's population that have elevated or harmful levels of PBTs in their tissue. This data is simply not available at this time.

Short of more complete biomonitoring data for Washington state, Ecology and Health determined that the best available information was from the Centers for Disease Control's National Health and Nutrition Examination Survey (NHANES), an ongoing national study of randomly selected people throughout the U.S. The NHANES study is designed to provide data for the nation as a whole and the data is representative of people in the U.S. While this may not be a good as a comprehensive biomonitoring program in Washington, it does provide some insight into the types of chemicals found in human tissues.

For the PBT chemicals and Metals of Concern included and detected in the NHANES study, Ecology assigned the highest score of 3. The rationale was that if a chemical is found in people participating in the NHANES Study, it is likely to be present in people in Washington state. PBTs not included in NHANES, but for which other published biomonitoring data exist were assigned a score of 2. Chemicals which lack available biomonitoring data from the NHANES program or elsewhere, were assigned a NA (not applicable), because their accumulation into human tissues could not be assessed.

The rationale for this approach is that chemicals for which biomonitoring data is available should receive a higher rank than chemicals without data because human exposure information, as indicated by biomonitoring data, will be important for completing the CAP. Ecology does not agree with, as the commenter stated, that "…this measure should have been eliminated from the process."

Similarly, Ecology found that the effort required to determine the level of "uses of the chemical in Washington" was beyond the scope of this CAP schedule document. Determining the quantity of individual PBTs used in specific products would be a challenging and time consuming effort since this type of information is often considered "proprietary" information by product manufacturers. Ecology also concluded that determining the uses and quantities of specific PBTs is more appropriately accomplished in the CAP development process specific for each chemical or chemical group rather than during the effort in developing the draft Multiyear PBT Chemical Action Plan Schedule.

Ecology concurs that dioxins are more toxic and carcinogenic than lead. The cancer potency factors (CPF) and reference doses (RfDs) clearly demonstrate this. However, the PBT Rule also requires the ranking of persistence and bioaccumulation, and comparing the volume and quantity of each PBT released into Washington's environment. The PBT Rule is designed to provide equal weighting for each PBT characteristic being ranked.

Ecology acknowledges that this approach tends to favor PBTs with the most data. For example, the ranking effort does not conclude that dioxin is not an environmental or human health problem in Washington. It just concludes that lead and PAHs appear to pose a bigger risk to human health and the environment than other PBTs based on the review of all three factors (toxicity, bioaccumulation and persistence) and thus need to be addressed first.

Comment #2:

Commenter: Bill Yake, Private Citizen

The commenter stated that the use of fish consumption advisories appears to be the most useful and rigorous measure. The commenter states that the way SEDQUAL data were used in this portion of the evaluation compromises the results because a ranking based on the frequency of detection in sediments is meaningless. Rather, the commenter believes these rankings should be based on ecological or health-based standards.

Ecology Response:

Ecology agrees. We revised the ranking and included only sediment values that exceed either the "Cleanup Screening Level" (CSL) or the "Sediment Quality Standards" (SQS) in the SEDQUAL database.

These corrected values are entered in Table 9. "Levels present in the environment": detections for specific PBTs on page 33. The revised CSL/SQS values change the ranking score for hexachlorobutadiene, lead, PCBs, PCDFs, PCDDs, PAHs and 1,2,4,5,-TCB. However, the final ranking in Table 9 is not changed for any PBT or metal of concern because the single highest ranking was used as the final ranking for levels of the chemical present in the Washington environment.

Comment #3:

Commenter: Bill Yake, Private Citizen

The commenter stated that the "Opportunities for Reduction" section was evaluated in a largely subjective and sometimes contradictory manner. The commenter cited the following examples:

- **Although lead received the highest possible score for TRI releases "primarily due to amounts reported by the Pend Oreille Mine (which reopened in 2004) and about 850,000 pounds of lead reported by the Hanford Site" neither of these sources is mentioned under "opportunities for reduction." Either these releases represent enough of a *problem* to increase the toxic release score for lead (in which case they should be addressed as "opportunities for reduction"), or they do not (in which case they should not jack up lead's environmental release score). It seems likely that Ecology could spend substantial resources addressing lead**

sources in Washington and have no impact on the largest documented sources of lead in the state.

- **Dioxins/furans are ranked as if there were no "prevention opportunities" for them. This despite the fact that the document lists eleven current "likely major sources of dioxin and furan releases in Washington." It is irrelevant whether or not these chemicals are "created intentionally" – numerous "prevention opportunities" are still evident since being identified eight years ago in the *Washington State Dioxin Source Assessment*. Giving dioxins/furans a lower score than other chemicals with "prevention opportunities" was, according to the commenter subjective and unwarranted.**

Ecology Response:

Ecology concurs that the Toxic Release Inventory (TRI) for lead is dominated by the reported releases from the Pend Oreille Mine and from the Hanford Nuclear Reservation. Secondly, Ecology acknowledges that addressing these large lead releases was not listed in the Opportunities for Reduction section of the draft Multiyear PBT Chemical Action Plan Schedule. Ecology agrees that the Opportunities for Reduction section is a more subjective ranking than the relative ranking of PBT characteristics, uses, releases and levels present of PBTs in Washington's environment and levels present in Washington residents.

Ecology primarily evaluated the following reduction opportunities for each PBT:

1) *Chemical substitution* - which assumes the manufacturing process remains essentially the same, but a non-PBT chemical is substituted for the PBT.
2) *Product redesign* – which assumes that simple substitution is not possible or cost-effective; therefore the product itself is redesigned (e.g. a different type of plastic is considered) to eliminate the use of the PBT.
3) *Product elimination* – which could be a ban of the use of the chemical and could be product- or chemical-specific depending on the nature of the release mechanism and the toxicity of the PBT in question.
4) *Consumer education* – which could supplement the above actions or stand alone, and is intended to provide consumers with information regarding PBT-containing products.
5) *Pollution control improvements* – which are technologies that can be employed to directly reduce the release of a PBT at manufacturing or treatment facilities.
6) *Reevaluating recycling/disposal practices* – which may be appropriate in cases where the release of the PBT occurs as a result of such practices.
7) *Cleanup actions* – which are actions to directly clean up releases, and typically include removing or treating contamination that has accumulated at a given site, exceeding established standards.

The first four actions are designed to prevent releases from occurring. The fifth option aims to minimize releases by improving treatment technologies. The final two strategies deal with materials that have already been released. Reduction opportunities for PBTs were prioritized as follows:

prevention > management/recycling > cleanup.

However, evaluating "reduction opportunities" does not lend itself to a quantitative analysis; it is a qualitative analysis, often based on best professional judgment and limited data. A detailed examination of reduction opportunities for a given chemical will be done in the context of a chemical action plan; it was not possible for this multiyear CAP schedule. As each CAP is developed specific reduction opportunities will be identified and considered for each chemical.

Given that, compared with other PBTs, dioxins and furans are not intentionally added to a product but are generally a by-product of combustion or chemical manufacture; Ecology determined that prevention opportunities were more limited in scope than for other PBTs. While the commenter may not agree with that conclusion, Ecology determined this was an appropriate conclusion to make in this section.

Comment #4:

Commenter: William J. Adams, Ph.D., North American Metals Council

The commenter, representing the North American Metals Council, stated that the Multiyear CAP Schedule should not use any analyses that seek to classify or rank cadmium or lead using PBT criteria for bioaccumulation or persistence. The commenter reminded Ecology of our previous commitment to refrain from classifying the metals cadmium and lead as "PBT substances" pending the completion of EPA's Inorganic Metals Assessment Framework.

Ecology Response:

Ecology is aware of the efforts by the U.S. Environmental Protection Agency (EPA) to evaluate the scientific validity of applying PBT-based hazard criteria that were initially developed for organic compounds, to metals.

In correspondence in 2002 and 2006, Ecology made commitments to refrain from classifying metals as "PBT substances" pending the completion of EPA's Inorganic Metals Assessment Framework.

More specifically, in the 2002 correspondence (March 5, 2002 letter from Tom Fitzsimmons to Greg Hanon), Ecology stated:

"Ecology has learned the EPA will be working with its Science Advisory Board to develop comprehensive cross-agency guidance for assessing the hazards and risks of metals. Until this issue posed to EPA's Science Advisory Board is addressed, Ecology will include a footnote on any PBT Working List identifying that any metals on the working list are currently undergoing

this review and that Ecology will revise any PBT working list so as to be consistent with EPA waste minimization treatment of metals."

Ecology believes that it has addressed the North American Metals Council's concerns by establishing the "Metals of Concern" section (Section 315) in the PBT Rule.

In addition, Ecology stated in the January 2006 Rule adoption notice the following:

"This rule will only apply to Ecology. The rule will not impose new requirements on persons using or releasing PBTs, and it does not create new authorities nor does it constrain existing authorities for Ecology."
and
"Additionally, in the rule, Ecology created a separate category for metals called "metals of concern". The metals of concern in the PBT Rule are cadmium and lead. This category was established as an interim category pending completion of EPA's inorganic metals assessment framework process. Ecology may prepare CAP's for one or more metals of concern using the CAP development process as defined in the PBT Rule."

To address this issue, Ecology included Section 315 – Metals of Concern in the PBT Rule. The Language of Section 315 is as follows:

(1) ***Purpose***. *The purpose of this section is to identify metals of concern to be addressed under this chapter. The metals of concern category was established as an interim category pending completion of EPA's inorganic metals assessment framework process.*

(2) ***Metals of concern***. *Ecology has identified the following metals of concern based on a determination that these metals pose threats to human health and the environment in Washington.*

Metals of Concern	***CAS Number***
Cadmium	*7440-43-9*
Lead	*7439-92-1*

(3) ***Actions***. *Ecology may prepare chemical action plans for one or more metals of concern using the process defined in WAC 173-333-420.*

(4) ***Revising the metals of concern list.*** *Ecology will evaluate the relationship between the metals of concern list and PBT list in WAC 173-333-310 following the completion of the EPA's inorganic metals assessment framework process.*

Finally, in the document titled: "Key Areas where changes were made in the final PBT Rule" (dated January 13, 2006), Ecology stated:

"Several organizations recommended that Ecology not include metals on the PBT list because they believe (1) it is inappropriate (from a scientific and policy standpoint) to apply the PBT criteria to metals; (2) it is premature for Ecology to apply the PBT criteria to metals because of the ongoing EPA review; and (3) application of the PBT criteria to metals and listing cadmium, lead and mercury is at odds with past Ecology statements. Other individuals and organizations

supported Ecology's decision to include metals on the PBT list, and recommended that the Department not impose restrictions on developing chemical actions plans for lead and cadmium.

Ecology reviewed the comments on this issue and decided to classify lead and cadmium as "metals of concern" pending completion of EPA's Inorganic Metals Assessment Framework. ***Under this approach, Ecology would consider lead and cadmium during the process for selecting chemicals for chemical action plan preparation under WAC 173-333-410 and, if appropriate, prepare chemical action plans for one of both of these metals.*** (emphasis added) *Under this approach, Ecology would continue to include methylmercury on the PBT list.*

Ecology concurs that on page v of the Executive Summary of the draft Multiyear PBT Chemical Action Plan Schedule, Ecology added a footnote which states:

"For ease of reading, the PBT List of individual chemicals, chemical groups and metals of concern are referred to throughout the document as "PBTs" of "chemicals," rather than delineating the three categories each time they are referenced."

Ecology has revised this footnote in the Executive Summary of the *Final* Multiyear PBT Chemical Action Plan Schedule to read:

For ease of reading, the PBT List of individual chemicals, chemical groups and metals of concern are referred to throughout the document as "PBTs and metals of concern" or "chemicals," rather than delineating the three categories each time they are referenced.

In addition, appropriate edits were made to pages 5, 6, 13, 18, 41, and 83.

Although EPA has not completed its final Metals Framework, EPA's Science Advisory Board (SAB) has issued its final report on the draft Metals Framework (dated January 25, 2006) and EPA Administrator Stephen Johnson has responded to the Science Advisory Board's report (dated April 3, 2006). With regards to bioaccumulation, in the January 25, 2006 document the SAB states: *"The SAB strongly agrees with the statement that BCF/BAFs do not apply to metals."* EPA's response letter of April 3, 2006 concurs that the *"use of bioaccumulation factors and bioconcentration factors are not scientifically supported for use as a generic threshold criteria for the hazard assessment of metals."*

With regards to using persistence values for evaluating hazard for metals, the SAB stated in a previous document (dated October 23, 2002) that *"persistence is a problematic scientific issue for assessing metals hazards and risks. In the case of synthetic organic contaminants, persistence refers to their environmental stability relative to degradation, thus providing a metric of exposure. As the Action Plan points out, metals do not degrade so that "persistence" relative to their environmental fate has little meaning. The Panel suggest that for metals, persistence is addressed better within the context of environmental chemistry in terms of stability of chemical species, residence times and attenuation within environmental media."*

In the draft Multiyear PBT Chemical Action Plan Schedule document, Ecology used bioaccumulation and/or bioconcentration factor values for cadmium (4190) and lead (1700) that were taken from EPA sources.

Additionally, in the draft Multiyear PBT Chemical Action Plan Schedule document, for persistence, Ecology used a regional half-life value of 15,000 days. Our rationale is that both lead and cadmium are elements, and therefore "persistent". This specific number was selected because it exceeded the published and documented persistence regional half-life value of 14965 days for perfluorooctane sulfonates (PFOS).

However, since Ecology made a commitment to refrain from classifying metals as "PBT substances" pending the completion of EPA's Inorganic Metals Assessment Framework and given that cadmium and lead are listed as "metals of concern" and defined in Section 315 of the PBT Rule, Ecology has changed the persistence values and bioaccumulation values to "Not Applicable" (NA) on Tables 4 (page 13), 6 (page 18), 11 (page 41) and 15 (page 83). The only impact of this change is that cadmium has a rank of "8" instead of "9" in the final overall ranking (Table 15). Lead's ranking remains the same.

Comment #5:

Commenter: John Dohrmann, Puget Sound Action Team

The commenter stated support by the Puget Sound Action Team (PSAT) for the development of chemical action plans for the three PBTs, lead, polycyclic aromatic hydrocarbons (PAHs) and perfluorooctane sulfonate (PFOS), as outlined in the draft schedule. The commenter further mentioned that PSAT has identified lead and PAHs as chemicals of concern for the Puget Sound ecosystem and that PFOS has recently been detected in the global environment (in a 2002 review by Canadian scientists) and may threaten marine mammal health.

Ecology Response:

Comment noted.

Comment # 6:

Commenter: John Dohrmann, Puget Sound Action Team

The commenter stated that while PSAT believes that the development and implementation of chemical action plans is a good step in helping reduce the harm from persistent bioaccumulative toxins, PSAT feels that a "chemical by chemical" approach is an inherently slow and laborious way to eliminate harm from toxic chemicals in the environment. PSAT encourages Ecology to continue to look at other methods that can compliment the chemical action plan process and address more holistically all of the PBTs identified in the PBT rule.

Ecology Response:

Comment noted.

The more we learn about toxic chemicals, the more we realize how pervasive they are. They are in our air, our water and our soil. They are in the products we buy and use at home and at work. Today, there are about 80,000 chemicals in use in the U.S. and while many of them have added to our quality of life, the effects on our health from thousands of these chemicals is simply not known.

Comment # 7:

Commenter: Daniel Thompson, Department of Ecology

The commenter recommended the following editorial changes on page 53 of the draft Multiyear Schedule document:

- **Where the phrase, "Land-applied sewage sludge" is used - this is an inaccurate use of terminology since "sewage sludge" is defined in state statute and state regulations as a material that cannot be land-applied or otherwise beneficially used. Instead, use the term "biosolids", which is defined in state statute and state regulations as a material that is generally derived from sewage sludge but that has met certain quality criteria to allow it to be land-applied or otherwise beneficially used.**

- **Additionally, on page 53, the commenter suggested that since a listing of likely major sources of dioxins and furan releases in Washington includes "Land-applied sewage sludge", this should read, "Land-applied biosolids".**

- **Additionally, the commenter stated that, in 2001 EPA conducted a risk analysis with respect to dioxins in biosolids and determined that a regulatory threshold should not be established. Part of the rationale for this determination was that the risk posed from biosolids was extremely low, and the concentrations found in biosolids were far lower than the anticipated threshold level. Due to the result of the 2001 EPA risk analysis, Ecology should delete the word "major" and consider listing the suspected sources alphabetically or listing them in order of suspected potential impact.**

Ecology Response:

Ecology revised this wording in the final Multiyear PBT Chemical Action Plan Schedule.
