#### State of Oregon

Department of Environmental Quality Memorandum

**Date:** October 20, 2011 DRAFT

**To:** Environmental Quality Commission

**From:** Dick Pedersen, Director

**Subject:** Agenda Item X, Rule Adoption: Revision of Division 045 Initiation Level Rule 340-045-0100

October 2011 EQC Meeting

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| **Why this is Important** | Under the Initiation Level rule and based upon sampling conducted in 2010, municipal wastewater treatment plants routinely exceed initiation levels for cholesterol and coprostanol, pollutants with no feasible municipal pollution prevention activities or cost-effective treatment options. The Environmental Quality Commission adopted a temporary rule to remove the requirement for municipalities to develop Pollutant Reduction Plans for cholesterol and coprostanol. A permanent rule is needed to ensure that municipalities subject to this rule in the future will not be required to develop reduction plans for cholesterol and coprostanol, an administrative process with little or no environmental benefit. |
| **Department Recommendation and EQC Motion** | The Department of Environmental Quality (DEQ) recommends that the Environmental Quality Commission (EQC, Commission) permanently revise rule 340-045-0100, Initiation Level Rule, to suspend municipalities’ requirement to develop Persistent Pollutant Reduction Plans for cholesterol and coprostanol, as presented in Attachment A.  |
| **Background and Need for Rulemaking** | The EQC passed the Plan Initiation Level Rule in June 2010 requiring Oregon’s 52 largest municipal wastewater treatment plants to develop Persistent Pollutant Reduction Plans for pollutants present above Plan Initiation Levels (PILs). SB 737 requires that these plans be incorporated into NPDES and WPCF permits on renewal. The EQC adopted a temporary rule suspending the reduction plan requirement for cholesterol and coprostanol in February 2011, and it will expire on September 11, 2011.The two municipal sampling events in 2010 revealed Plan Initiation Level (PIL) exceedances at nearly every location for cholesterol and coprostanol, and only a handful of other PIL exceedances for other persistent pollutants. Cholesterol and coprostanol are naturally-occurring by-products of human digestion. Based on these results, almost all of the 52 municipalities would have been required to prepare a reduction plan for these pollutants for which there is limited information about toxicity, no feasible municipal pollution prevention activities, and a lack of cost-effective treatment options. Further, additional municipalities may become subject to the statute and rule’s requirements in the future, and, based on these results, those facilities are likely to similarly exceed initiation levels for cholesterol and coprostanol. While toxicity models concluded that cholesterol and coprostanol are toxic and persist in aquatic ecosystems, meeting the criteria for inclusion on the Priority Persistent Pollutant List (P3 List), there is limited published scientific data on toxicological effects to corroborate the model estimates. Further, there are no feasible municipal pollution prevention activities or cost-effective treatment options to reduce cholesterol or coprostanol. DEQ views development of Persistent Pollutant Reduction Plans for cholesterol and coprostanol a disproportionate response for these types of pollutants.  |
| **Effect of Rule**  | This permanent revision to the Initiation Level rule will suspend municipalities’ requirement to develop Persistent Pollutant Reduction Plans for cholesterol and coprostanol. Based on public comments received, the proposed revision also includes an exemption to the reduction plan requirement for a pollutant if the DEQ laboratory determines that there are no analytical laboratories available to perform the necessary analysis for the pollutant. The proposed rule revision is presented in Attachment A. |
| **Commission Authority** | The Commission has authority to take this action under ORS 468.020, 468B.141 and 183.335.  |
| **Stakeholder Involvement** | During its development of the temporary rule, DEQ met with a volunteer Stakeholder Sounding Board in October 2010, January 2011, and May 2011 for discussion and input regarding options to address this issue. At the October 2010 meeting, DEQ informed Sounding Board members that it was considering two options for addressing pollutants with no feasible municipal pollution prevention activities or treatment options: (a) minimal reduction plans focused on maintaining or optimizing existing treatment; or (b) a rule revision to suspend permittees’ requirement to develop Persistent Pollutant Reduction Plans for these pollutants. DEQ offered Sounding Board members an informal opportunity to provide input on these two options, and evaluated input received.In advance of the January 2011 Stakeholder Sounding Board meeting, DEQ indicated its intent to pursue a revised rule and shared draft rulemaking materials for the temporary rulemaking. DEQ responded to clarifying questions at the Stakeholder Sounding Board meeting and accepted information from Sounding Board members that improved the documents’ accuracy. DEQ built upon this input received during the preparation of the temporary rule and held an additional meeting with interested Sounding Board members in May 2011 to review the proposed rulemaking materials. As a result of that discussion, further clarifications were included in the proposed rule addressing situations when a permittee required to develop and implement a Persistent Pollutant Reduction Plan will be considered to be “done.” A list of Sounding Board members who participated in these meetings is located in Attachment D.  |
| **Public Comment** | DEQ held a public comment period for the revised Initiation Level Rule from June 1 to June 30, 2011. DEQ held one hearing in Portland, Oregon on June 15, 2011. One person attended the hearing and provided oral testimony, and DEQ received three letters with comments on the proposed changes to the rule language. A summary of the public comments received and responses from DEQ is located in Attachment B.  |
| **Key Issues** | Several key issues were considered during the development of the temporary rulemaking and continue to be relevant for this proposed final rule: 1. The extent to which specific information exists regarding the potential environmental and human health threats of discharging cholesterol and coprostanol into Oregon’s waters.
* A model estimate of toxicity warranted listing these pollutants on the Priority Persistent Pollutant List. DEQ relied heavily on public comment both during list development and plan initiation level selection processes. DEQ did not receive any comments during either public comment period refuting model estimates for cholesterol and coprostanol. After detection of these two pollutants above Plan Initiation Levels at nearly all facilities, DEQ performed a focused evaluation of available information on these pollutants, as summarized in the technical memo “Aquatic Toxicity of Sterols and Stanols” (10/25/10, available on request). Based on the investigation, DEQ concluded that there are few studies regarding the potential environmental and human health threats of discharging cholesterol and coprostanol into Oregon’s waters, and those that do exist do not present conclusive information about their potential harmful effects on the well-being of humans, fish, or wildlife.
1. Availability of pollution prevention activities to reduce sterols and stanols.
* Cholesterol and coprostanol are two naturally occurring byproducts of human digestion. DEQ performed an independent analysis and was not able to identify feasible potential pollution prevention activities for these pollutants.
1. Availability and cost-effectiveness of treatment technologies for reducing cholesterol and coprostanol.
* DEQ received input from stakeholders with diverse perspectives regarding the availability and cost-effectiveness of treatment technologies. DEQ reviewed relevant literature and affirmed that cost-effective treatment is not available, as outlined in the technical memo: “Treatment of Sterols and Stanols” (12/20/10, available on request).
* These are the only two pollutants on the Priority Persistent Pollutant List for which model estimates cannot be corroborated with scientific literature; they also lack municipal pollution prevention activities or cost-effective treatment options.
1. Complying with SB 737’s statutory requirements without a temporary rule.
* DEQ considered whether minimal reduction plans could meet municipalities’ requirements under SB 737. DEQ determined that incorporating brief reduction plans into NPDES and WPCF permits for pollutants with no feasible reduction activities would yield a resource-intensive administrative process with little or no environmental benefit.
1. At the time of the proposed rulemaking, municipalities raised concerns regarding the need for permittees to prepare a reduction plan addressing cholesterol or coprostanol if DEQ failed to follow through with a timely permanent rule or a revision of the P3 list after expiration of the temporary rule.
* The temporary rule expired on September 11, 2011. All five communities required to develop a Persistent Pollutant Reduction Plan submitted their plans by the July 1, 2010 deadline. DEQ sent letters to the five communities approving their plans in August 2011. The temporary rule was in effect during this period of time, and based on advice from the Department of Justice ((1/27/2011), available on request). these communities have complied with the applicable requirements.
* The permanent revisions continue to be needed to address any future permittee that becomes subject to the statute and rule’s requirements in the future. \
1. During the public comment period, the Association of Clean Water Administrators requested that the rule be amended to include an exemption to the reduction plan requirement if it was determined that there
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| **Next Steps** | Once adopted, the rule revision will be filed with the Secretary of State. DEQ will notify all affected permittees and Stakeholder Sounding Board members via email, and other interested stakeholders via an email message posted to the SB 737 GovDelivery listserv. This rulemaking will also use education and outreach via the project website, [www.deq.state.or.us/wq/SB737](http://www.deq.state.or.us/wq/SB737) to communicate DEQ’s revised requirements. |
| **Attachments** | 1. Proposed Rule Revisions {redlined version}
2. Response to Comments
3. Statement of Need and Fiscal and Economic Impact
4. SB 737 Stakeholder Sounding Board List
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| **Available Upon Request** | 1. Compiled Information about Persistent Pollutants Detected above Plan Initiation Level (PIL) (1/18/11)
2. Technical Memo: Aquatic Toxicity of Sterols and Stanols (10/25/10)
3. Technical Memo: Treatment of Sterols and Stanols (12/20/10)
4. Legal Memo on Effect of Expiration of Temporary Rule (1/27/2011)
5. Rule Implementation Plan
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Approved:

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 Division: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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