Clean Water Services (CWS) is pleased to have the opportunity to submit comments on DEQ's proposed water quality standards for human health toxic pollutants. CWS provides wastewater and storm water management services to more than 527,000 residents of Washington County, Oregon. Under CWS's first-in-the-nation integrated watershed-based NPDES permit, CWS has implemented a proactive approach to solving complex water quality problems. CWS has achieved demonstrable improvements in water quality in the Tualatin basin through efforts involving many stakeholders. CWS has worked collaboratively with DEQ in developing and updating effective, targeted TMDLs. CWS's commitment to controlling toxics can be seen in the efficient operation of our advanced wastewater treatment plants, in our nationally recognized source control program, our implementation of a pollution prevention program, and our support for the Tualatin Watershed Council.

The watershed-scale TMDL approach has required significant time and effort to collect meaningful data and implement effective programs. These achievements have resulted from focusing on effective actions rather than by seeking variances from water quality standards for individual point sources. CWS encourages DEQ to apply this experience of developing and implementing watershed-based TMDLs to controlling toxics, rather than relying on variances.

Representatives of the Oregon Association of Clean Water Agencies (ACWA) and CWS served on the DEQ committees that contributed to the development of the proposed water quality standards, and provided significant input for the Department's consideration. However, many significant aspects of this input are not reflected in the proposed rules, and we are concerned that the proposed standards do not provide a clear and effective implementation direction. Without effective guidance on implementation priorities, the standards as written will lead to substantial expenditure of public resources without achieving any meaningful improvement in the protection of human health or environmental quality. Furthermore, the reliance on variances as the sole tool for implementing the standards for municipal permittees is of uncertain effectiveness and will not serve to advance improvements in water quality. As proposed, variances will discourage the development of solutions that will lead to effective toxics control by redirecting resources to the variance application and approval process.

Clean Water Services supports the comments provided in a separate letter by ACWA. In addition, we recommend that the Commission and DEQ provide broader and prioritized strategies that address all sources of toxics, including developing basin-scale TMDLs for toxic pollutants. We recommend that these strategies be integrated with the rule prior to finalizing the rule.

Our comments reflect the following concerns:

- Given the natural characteristics of the Tualatin watershed and the river, its native fish species, and historical use, it is unlikely that fish from the river are being consumed at the fish consumption rate (FCR) of 175 g/day, and therefore it is uncertain how the proposed

rules (and related revisions to water quality standards) will result in any meaningful reduction in toxics or improvement in protection of human health. We request that DEQ provide a path from the variance to a Use Attainability Analysis (UAA) reflecting the actual uses specific to the receiving stream (such as recreational versus subsistence fishing).

- As proposed, the use of variances alone to address the lack of available treatment technology or the result of widespread social and economic impact does not provide a pathway of progress toward meeting the water quality standards. DEQ should identify a meaningful process that picks up from the end of a variance, such as clearly describing the transition from variances into TMDLs. CWS has lengthy and successful experience working within the TMDL process to address water quality concerns, and believes that this process can also be successfully applied to meet the objectives of the proposed rules.
- CWS has successfully utilized trading to cost-effectively meet water quality needs, and trading should be provided and endorsed as an option for compliance under the proposed rules.
- CWS has successfully and effectively developed and implemented pollution prevention and source control programs to reduce toxics, and these programs should be explicitly recognized as an accepted basis and as an alternative to end-of-pipe water quality based effluent limits for regulatory compliance.
- CWS operates under a watershed-based permit and the proposed rules are not clear how a variance process would be applied to such a permit. In addition, we strongly advocate for a multi-discharger option for the development, review, and approval of variances.

Comments on the proposed human health standards

The Environmental Quality Commission (EQC) detailed four charges when it directed DEQ to develop a rulemaking proposal to implement the FCR of 175 g/day in human health-based water quality standards. These charges included a specific objective that the FCR rules be implemented in an *environmentally meaningful and cost effective manner*. DEQ has not met this charge. DEQ has not thoroughly evaluated whether the implementation of the revised human health criteria would result in environmentally meaningful reductions of pollutants. Neither has DEQ evaluated whether the proposed criteria will meaningfully reduce the risk to human health from eating contaminated fish.

Many of the toxics addressed by the proposed rules do not have primary sources in municipal wastewater discharges. Therefore, because the emphasis of the rulemaking is on regulating point sources under the NPDES program, the proposed standards will not result in environmentally meaningful reductions of toxics in Oregon. We believe a watershed-based approach that considers all sources of pollutants and effectively regulates their relative contributions is

necessary to achieve environmentally meaningful reductions of pollutants and fulfill the EQC's charge to DEQ in the development of the rules.

The primary objective of the proposed rules is to ensure that fish are free from toxic substances that pose an unreasonable risk to human health. Since both the fish, and the waters that they are exposed to, are not confined to the governmental boundaries of the State of Oregon, it is appropriate to review the human health standards as part of a regional strategy that includes Oregon, Washington, and Idaho. Since Washington and Idaho currently have human health standards based on a much lower fish consumption rate and have no stated plans to adopt standards similar to those proposed by DEQ, the proposed rules cannot by themselves prevent fish contamination, but will put Oregon businesses and industries at an economic disadvantage compared to those in bordering states.

The following comments address DEQ's fiscal and economic analysis, the reliance on variances, and the SAIC report, followed by some suggestions for improving the analysis that supports the proposed rulemaking.

Fiscal and economic analysis

As detailed in the following paragraphs, DEQ's fiscal and economic analysis has significant data gaps and includes many inaccuracies. It also significantly overestimates the benefits to human health and underestimates the impact of the proposed rules on communities in Oregon and on DEQ's NPDES program.

DEQ greatly underestimated the impact of the proposal on municipal wastewater permit holders.

DEQ relied on a report by SAIC that concluded that there are a few pollutants in the discharges from municipal wastewater treatment facilities that would have a reasonable potential to cause or contribute to an exceedance of water quality standards under the proposed rule. An independent analysis conducted by ACWA using a current and more comprehensive dataset from Oregon municipal permit holders reached a very different conclusion. The ACWA study shows that there are more pollutants (and that these pollutants occur at higher frequency) for which there would be a positive reasonable potential determination than concluded in the SAIC report. As a result, most if not all, domestic treatment plants will either need to install expensive technology, if available, or apply for variances to meet the proposed water quality standards. To properly evaluate the impacts of the proposal, DEQ should conduct an updated Reasonable Potential Analysis (RPA) of the proposed water quality standards.

DEQ must use a consistent, defined approach to conducting RPAs.

DEQ has used varied approaches, not consistent with its Internal Management Directive and different from that used in the SAIC report, in conducting RPAs. The method for conducting the RPA greatly influences which facilities may require a variance, especially in dealing with limited

data sets. Until a consistent approach is applied it is not possible to evaluate the potential financial impacts of the proposed rules.

DEQ did not provide costs for treatment technologies to meet proposed water quality standards.
A municipal permit holder must evaluate the availability of treatment technology before applying for a variance. If technology is available, a permit holder would have to utilize the technology to meet applicable water quality standards. The DEQ issue paper states that there are "numerous end-of-pipe treatment technologies that could be used to reduce toxic pollutants in wastewater effluents." DEQ does not provide costs of the treatment technology and thus, significantly underestimates the overall costs of complying with the water quality standards. CWS also disputes that numerous technologies exist that would reduce toxic pollutants to the levels anticipated by DEQ in the proposed revisions. Without an analysis of the costs of installing, operating and maintaining these treatment technologies, there is no basis for concluding that the regulations are cost effective.

DEQ underestimated the impact of the proposal on business and industries.
Imposing stricter local limits based on the proposed water quality standards would have a significant impact on large and small Oregon businesses that discharge industrial wastewater to a municipal wastewater treatment plant. Without an evaluation of the impacts on these businesses, DEQ's fiscal and economic evaluation is incomplete. DEQ concludes that under that scenario "some businesses and industries would need to disconnect from the sewer system and manage their wastewater on site." For many Oregon businesses and industries that use large amounts of water, managing their wastewater onsite is not a reasonable solution.

DEQ significantly underestimated the costs to develop, apply for, and renew water quality variances.
DEQ identified variances as the primary mechanism for compliance with the proposed water quality standards. DEQ estimated that the one-time cost per major municipality for a variance ranges from $8,000 to $44,000. Based on the data and information that would have to be presented as part of a variance application, DEQ's estimate is very low, likely by an order of magnitude. It should also be noted that these are not one-time costs. For legacy pesticides and PCBs, a municipality would likely incur these costs every three to five years for the foreseeable future.

DEQ significantly underestimated the amount of DEQ staff time needed to process alternate compliance mechanisms such as variances.
DEQ significantly underestimated the staff time estimated to process a variance. The time included does not account for the staff time involved in gathering information, reviewing comments and preparing responses on submittals, the negotiation process with the source, discussions with EPA to seek its approval, and other complications a variance would cause in the

permit issuance process. If these work elements were included – and they are all critical to accomplish the work – the time estimates would be much longer. Having to obtain a variance as part of a NPDES permit process would bring the permit program to a standstill. A variance would throw enormous regulatory hurdles into an already cumbersome, resource starved permit program with no certainty or time frame for resolution.

Lack of DEQ resources will put permit holders at risk.
The costs for developing and implementing variances and other tools will be very significant, potentially overshadowing other current priorities. Since variances are expected to be "short-term" and "temporary," renewals in conjunction with permitting, as well as end-point tools identified by DEQ such as UAA and TMDL development will greatly out-strip DEQ's ability to manage them effectively and expeditiously. The ability of DEQ to marshal adequate resources to this task, given current budget constraints, seems unlikely and will delay permit renewal, increase the permit backlog, and put permittees at risk for legal challenges.

DEQ significantly overestimated the benefits of the proposal on the environment.
Because the proposed standards emphasize point sources, and point sources are not the primary sources of the toxics subject to the proposed standards, they will not result in environmentally meaningful reductions of toxic pollutants in Oregon. DEQ uses general, unsubstantiated statements to list the benefits of the proposed rulemaking – better water quality, reduced risk of environmentally attributable diseases, cleaner intake water, increased water reuse, etc. DEQ offers no specifics and does not quantify the benefits of the rulemaking on water quality. Some of benefits listed are either inapplicable or have little to do with the proposed rulemaking – reduced risk of water contact recreation, reduced hazardous waste removal costs, reduced cost of litigation, etc.

One of the charges that DEQ received from the EQC is to implement the human health standards in an environmentally meaningful manner. Without an updated Reasonable Potential Analysis, and an evaluation of whether the implementation of the revised human health criteria will result in environmentally meaningful reductions of pollutants, DEQ's analysis is incomplete. Such an analysis requires an understanding of the relative contributions of the sources of toxic pollutants in a watershed. DEQ has not conducted such an evaluation and therefore, is unable to assess whether these standards would result in environmentally meaningful reductions of pollutants.

DEQ overestimated the availability of technology to meet the more stringent standards.
DEQ indicates that some sources may need to install additional treatment technologies to meet the toxic pollutants water quality standard. Oregon wastewater treatment plants are very effective at removing metals such as mercury. For example, CWS's Rock Creek and Durham advanced wastewater treatment facilities effectively remove more than 95% of the mercury that is conveyed to the treatment plant. The proposed standards would require nearly 100% removal. There are no reasonable, cost effective treatment processes for removing these pollutants from

municipal wastewater effluent at the proposed levels. DEQ does not show the costs of complying with the proposed rulemaking across the ranges of small, mid-size, or large municipalities. The costs of applying for a variance are not the costs of complying with the revised water quality standard.

Quantitation Limits

With respect to quantitation limits, DEQ's fiscal and economic analysis states the following:

> Approximately 48% of the proposed human health pollutants have Quantitation Limits (QLs) which are higher than the actual criterion. For that reason, there may be small quantities of pollutants in Oregon's waterbodies that cannot be measured given limitations in analytical methodologies. For permitting purposes, the QL becomes the compliance point for dischargers. Consequently, if the criterion for any particular chemical becomes more stringent, but the QL remains higher than the criterion, there would be no effective change in the point of compliance. As laboratory methodologies improve, it is likely that QLs will begin to shift lower towards (or be lower than) the water quality criterion of these pollutants. While historically, the pace of change in laboratory methodologies has not been rapid, when methodologies improve, additional toxics listings and WQBELs established for dischargers may result.

Since nearly half of the pollutants for which DEQ is proposing standards have criteria below quantitation limits, conclusive statements cannot be made regarding compliance for nearly half of the pollutants. To address this problem, the rules propose that the quantitation limits become the measure of compliance. While initially practical, this approach results in effluent limits becoming more stringent over time as detection technologies improve. Improvements in treatment and management technologies could create a moving target for the viability of variances, leading to pressure to unexpectedly implement more expensive solutions with limited environmental improvements.

Variances

DEQ identified a burdensome regulatory process with an uncertain outcome as the only compliance tool for local governments. Variances are a temporary, short-term tool that have never been used in Oregon. Furthermore, the variance application process will require significant investments from local governments with no resulting environmental benefit. In addition, DEQ does not account for what happens at the end of a variance period when dealing with legacy pollutants that will take many decades to degrade. Local governments cannot rely on such a process as the only mechanism for compliance.

The EPA regulations require variances to be "short term and temporary." Legacy pesticides or very low levels of PCBs or pesticides that exist throughout the environment are long-standing

and persistent. A variance is not an appropriate tool for addressing such pollutants. Even addressing current use toxics will be complicated and will take many years to resolve. Variances provide a three- or five-year exemption, which may be appropriate for some pollutants as they can provide a schedule to come into compliance with a standard. A compliance schedule under an NPDES permit can achieve the same result without the expense and complications of a variance. For pollutants where technological solutions or source control strategies would not enable a source to meet standards, the proposed variance process is a bridge to nowhere. These facilities will likely face the same issues at the end of their variance.

Many of the toxics covered by the new rule and which may be of issue based on preliminary reasonable potential analysis are legacy pollutants such as pesticides (e.g., DDT), or are ubiquitous in the environment (e.g., PCB). Based on recent evaluation of the sources of these materials in sewage influent, human-excreted levels of those materials may be sufficient in and of themselves to result in an exceedance of the standards. There are limited methods and technologies available to deal with those materials. Other sources, such as consumer products, are not directly within the control of permit holders.

Since variances are time-limited and no reasonable technology exists for removing many pollutants, variances will not be a viable compliance tool and other solutions must be considered. DEQ should adopt water quality standards in a manner that would allow permittees to pursue various control strategies, including pollution prevention education and outreach and altering treatment technologies. The water quality standards adoption process for legacy pesticides and PCBs should take into consideration that these pollutants are banned from manufacture and use, but are still detected because of past use. Since banning is the ultimate management practice, these pollutants will only be reduced over time through decay. An understanding of the relative contributions of different sources is key to understanding how these pollutant scan be reduced. A watershed-based approach that takes into consideration the various sources of these pollutants is necessary to understand the effectiveness of management strategies.

SAIC Report

The EQC required DEQ to carefully consider the costs and benefits of the proposed rules. DEQ did not conduct a cost/benefit evaluation of the proposed rules as developed for the adopted FCR of 175 g/day. Thus, it is difficult to determine the monetary impact or the environmental benefit of the proposed rulemaking on municipal facilities.

The fiscal impact statement relies in large part on the findings of the SAIC report developed as part of the advisory committee processes set up to develop a recommended FCR. The SAIC's evaluation superficially examined several different FCRs under consideration, relied on a limited subset of the potentially affected permittee community, and on limited data from those sources.

The SAIC report significantly underestimates the potential impacts to the affected NPDES communities.

The fiscal analysis only deals with a static set of assumptions based on current PQLs and treatment technologies. The potential impacts cannot be fully quantified without projections based on improving treatment technologies and PQL improvement to the point where they can detect pollutants at the level of the standards.

The upper end of the range cited for securing variances, $44,000, greatly underestimates the potential costs for variance applications. The proposed variance procedures only allow for variances to individual pollutants by individual permittees. Therefore the costs provided by DEQ is a per pollutant cost that would have to be multiplied for each pollutant and for each permittee requiring a variance. It would not be unusual for a municipal permit holder to seek a variance for three to five pollutants, which would result in a cost of $132,000 to $220,000. Although identified as a "one-time" cost, reapplication on a three-to-five year variance term basis will likely have similar costs as well.

A municipal permit holder must evaluate the availability of treatment technologies before applying for a variance. Where technology is available, a permit holder would have to utilize it to meet applicable water quality standards. DEQ's proposal does not include costs for installing treatment technology, where available, to meet water quality standards. The proposal is also silent as to when and how DEQ will require updated technology that may improve treatment (even if the technology does not achieve the standard). Costs could be substantially greater than suggested.

Suggestions

- Conduct an analysis of the scope of the impact of the proposed water quality standards on the NPDES permitted point sources using available effluent data and a Reasonable Potential Analysis to identify how many permittees would likely receive permit limits.
- Perform a more explicit and quantified analysis of the costs and benefits of the proposed rules, consistent with the Commission's directive that the proposed rule and implementation measures *must carefully consider the costs and benefits of the FCR*.
- Provide sufficient details about the use of variances in NPDES permitting to allow for determination of the process for developing a variance application, level of documentation required, approval criteria, duration considerations, cost, and timing. Include rule language and a specific process for developing multiple discharger variances to address common bases for variances and facilitate efficiencies in documentation and applications. This is consistent with the Commission's directive to propose rule language that will allow DEQ to implement the standards in NPDES permits and other Clean Water Act programs *in an environmentally meaningful and cost effective manner*.
- Conduct an analysis of the status of current 303(d) listings relative to the water quality standards (WQS) that would be affected by the higher FCR, identify how many listings there are for the affected WQS, and outline the process and schedule for updating the listings and developing the associated TMDLs which would utilize the "implementation-

ready" approach. Accelerate TMDL development for those toxics which are largely non-point source in origination since the "implementation-ready" TMDL process is the only mechanism being proposed to address these toxics. This is consistent with the Commission's direction to propose rule language or develop other implementation strategies to *reduce the adverse impact of toxic substances in the waters of the state that are the result of non-point source discharges or other sources not subject to section 404 of the Clean Water Act*

- Finalize, prior to submitting the final rulemaking proposals to the EQC, the overall Statewide Toxics Reduction Strategy currently in development. This plan is necessary to ensure that the efforts at toxics control and reduction address all sources of toxics and are coordinated across all state departments that have a role.