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BY HAND DELIVERY AND EMAIL (toxicsrulemaking@deq.state.or.us)

Ms. Andrea Matzke
Oregon Department of Environmental Quality
Water Quality Division
811 S.W. Sixth Avenue
Portland, Oregon 97204

Comments on Proposed Revised Water Quality Standards for Human Health Toxic Pollutants and Revised Water Quality Standards Implementation Policies

Dear Ms. Matzke:

I represent the Oregon Water Quality Standards Group (OWQSG), whose members include or represent industrial facilities that hold National Pollutant Discharge Elimination System (NPDES) permits in Oregon. OWQSG participated extensively in the Department's stakeholder workgroups on the proposed revisions to Oregon's human health water quality criteria and associated water quality standards. Thank you for considering the following OWQSG comments on the proposed revisions. For clarity and the Department's convenience, I have also attached marked copies of the proposed rules that show OWQSG's suggested revisions.

I. FISH CONSUMPTION RATE AND RISK LEVELS

Following EPA guidance, the Department derived the proposed human health criteria from several different factors, including fish and water consumption rates, risk levels, and uncertainty factors. The values selected for these factors, however, are not all independent of each other. In particular, the selection of an appropriate fish consumption rate is related to the selection of an appropriate risk level. If the selected fish consumption rate is a rate for the general population, then it is generally appropriate to select a low risk level, such as one in a million (1×10^{-6}), to ensure that persons who consume relatively large amounts of fish are sufficiently protected. Conversely, if the selected fish consumption rate is a rate based on persons or groups who consume large amounts of fish compared to the general population, then

it is appropriate to select a higher risk level, such as one in 100,000 (1×10^{-5}) or one in 10,000 (1×10^{-4}).[1] The combination of a low risk level and a fish consumption rate based on individuals who consume relatively large amounts of fish, however, results in extraordinarily protective criteria whose marginally diminishing benefits to human health may not justify the increasingly expensive and technically challenging efforts needed to achieve the criteria—if the criteria can be achieved at all.

Until the most recent human health criteria proposal, Oregon had derived its human health criteria by using a national EPA recommended fish consumption rate for the general population (currently 17.5 grams per day) and a low risk level of 1×10^{-6} to ensure the protection of persons who consume relatively large amounts of fish. At the direction of the Oregon Environmental Quality Commission, the Department now proposes to derive the criteria using a fish consumption rate of 175 grams per day, which includes almost all consumers of fish in Oregon, including almost all subsistence fishers and tribal members. The proposal, however, does not reconsider the low risk level of 1×10^{-6}, which was based on the use of a fish consumption rate for the general population. Because of the change in the basis for the fish consumption rate, OWQSG believes that the human health criteria for carcinogens should be based on a higher risk level, such as 1×10^{-5}.[2]

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[1] *See* EPA, *Methodology for Deriving Ambient Water Quality Criteria for the Protection of Human Health* 2-6 to 2-7 (2000) (*Human Health Criteria Methodology*). EPA's *Human Health Criteria Methodology* would allow states to select a risk level of 1×10^{-5} for a fish consumption rate based on the *general* population if the risk for the most highly exposed subpopulation would not exceed 1×10^{-4}. *Id.* In Oregon's case, if criteria are based on a fish consumption rate of 175 grams per day and a risk level of 1×10^{-6}, an individual could consume up to 17,500 grams per day (more than 38 pounds per day) over a lifetime without exceeding a risk level of 1×10^{-4}. If the criteria are based on a fish consumption rate of 175 grams per day and a higher risk level of 1×10^{-5}, an individual could consume up to 1,750 grams per day (nearly 4 pounds per day) over a lifetime without exceeding a risk level of 1×10^{-4}.

[2] The use of a higher risk level to derive the criteria would not be inconsistent with EPA Region 10's June 1, 2010 disapproval of Oregon's 2004 human health criteria, which were based on a fish consumption rate of 17.5 grams per day and a risk level of 1×10^{-6}. EPA disapproved the use of a fish consumption rate of 17.5 grams per day, but it made clear that its disapproval was based only on the Commission's own earlier decision in October 2008 to use a rate of 175 grams per day. Moreover, EPA's decision did not require Oregon to continue using a risk level of 1×10^{-6} to derive the criteria.

Basing the human health criteria on a much higher fish consumption rate without increasing the risk level results in dramatically more stringent criteria. But to what extent will the more stringent criteria result in health benefits, and at what economic, social, and environmental cost? The facilities that are required to achieve the criteria—primarily industrial and municipal point sources—are, in general, responsible for only a small fraction of these pollutants in Oregon's waterbodies. Even if these facilities ceased discharging entirely, there would be a negligible effect on human health risks. The Department cannot legally or practicably regulate most of the sources that are responsible for the pollutants—*e.g.*, nature, widely distributed legacy pollutants, sources outside Oregon, and numerous small, unregulated human activities. Moreover, many persons derive their drinking water from groundwater sources that are not subject to the human health criteria or from relatively pristine surface waters that are upstream of dischargers and activities that are regulated by the criteria. Similarly, the fish consumption rate includes the consumption of anadromous fish, such as salmon, that may spend little time in Oregon waters, and many of the Oregon waterbodies that are subject to the criteria are not a substantial source of fish or shellfish. Furthermore, at increasingly low levels of risk, the health benefits of further reductions in a person's pollutant intake become vanishingly small.

Against these likely limited benefits must be weighed the costs (economic, social, and environmental) that will be incurred to achieve the more stringent criteria—if the criteria can be achieved. There are no wastewater treatment technologies that can feasibly achieve many, if not most, of the proposed human health criteria at the point of discharge. And many treatment or control options have substantial environmental costs through, for example, the increased use of treatment chemicals and energy and the use of less than environmentally optimal operating practices (such as not recycling cooling water in order to avoid concentrating pollutants obtained through the facility's intake water). Other costs include the additional managerial and staff time—already in extremely short supply—that the Department will need to devote to addressing permitting and compliance issues associated with the criteria.

Given these costs and uncertainties, OWQSG believes that the Commission should increase the risk level to 1×10^{-5} if the state's policy of using the fish consumption rate for the general population will be changed to use a fish consumption rate that is higher than the rates of nearly all the state's residents, including subsistence fishers and tribal members. Moreover, even if the Commission elects not to increase the risk level for all pollutants, the Department and the Commission should be prepared to consider increases in the criteria for at least those pollutants for which the likely health benefits of more stringent criteria are substantially outweighed by their costs. An example of this is the Department's pending proposal to base the human health criteria for arsenic on a higher risk level because natural arsenic concentrations greatly exceed

the criteria that would result from using a 1 x 10^{-6} risk level with a fish consumption rate of 175 grams per day.

II. APPLICATION OF HUMAN HEALTH CRITERIA

Water quality criteria for the protection of human health are intended to protect against long-term exposures to toxic pollutants. For carcinogens, the criteria are based on an average lifetime exposure.[3] For other pollutants, the criteria are based on an average exposure over a long period, although the period differs from criterion to criterion.[4] These exposure periods are also reflected in the "critical receiving water flows" that EPA recommends, and the Department uses, to calculate NPDES permit discharge limits for human health criteria: the long-term harmonic mean flow for carcinogens and the "30Q5" flow (the lowest consecutive 30-day average flow expected over a five-year period) for other criteria.[5]

Notwithstanding these long exposure assumptions, the current and proposed rules do not expressly limit the application of the criteria in either time or space.[6] Read literally (and I believe incorrectly), the criteria may never be exceeded, however briefly, and apply to all surface waters of the state, however unlikely the water is to be used for drinking water or fish or shellfish consumption.[7] This broadly worded application of the criteria risks adding further and unnecessary stringency to criteria that are already very conservatively protective of human health.

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[3] *See* EPA, *Human Health Criteria Methodology* 1-2 to 1-3, 1-11, 3-11, 3-17; EPA, *Technical Support Document for Water Quality-Based Toxic Control* 88 (1991) (*Technical Support Document*).

[4] *See Technical Support Document* 37, 89.

[5] *See Technical Support Document* 88-89; DEQ, *Reasonable Potential Analysis for Toxic Pollutants* 27 (2005).

[6] Compare the acute and chronic numeric criteria for aquatic life, which are expressly defined as one-hour and four-day averages, respectively, and which allow one exceedance every three years. OAR 340-041-0033(2), tables 20, 33A, and 33B.

[7] In the vicinity of a wastewater discharge, however, the Department may authorize a "mixing zone" within which human health and other water quality criteria may be exceeded. OAR 340-041-0053(2).

OWQSG is concerned that the appropriate application of the human health criteria is not reflected well in the proposed rules, particularly with respect to the exposure periods on which the criteria are based. This may cause the criteria to be applied in ways that impose substantial economic, social, and environmental costs but that provide no benefits to human health. OWQSG suggests that two modest clarifications of the criteria's applicability would help prevent unreasonable applications of the criteria.

First, the rules should make clear that the criteria do not apply to waterbodies, such as drainage ditches and stormwater detention ponds and swales, that contain only stormwater runoff and wastewater. These waterbodies are not sources of drinking water or fish or shellfish that might be consumed by humans.[8] OWQSG does not believe that DEQ intends human health criteria to apply to these waterbodies, but the proposed rules state, without qualification, that the criteria apply "in waters of the state." *See* OAR 340-041-0033(4)(a) (proposed). Because the term "waters of the state" is defined broadly, albeit somewhat vaguely, to include "all . . . bodies of surface or underground waters, natural or artificial, . . . public or private," OAR 340-041-0002(72), it would be helpful to clarify that the human health criteria do not apply to waterbodies that contain only stormwater and wastewater. Accordingly, OWQSG suggests that proposed OAR 340-041-0033(4)(a) be revised as follows: "(a) Levels of toxic substances in waters of the state other than waterbodies that contain only stormwater and wastewater may not exceed the applicable human health criteria listed in Table 40."[9]

Second, the human health criteria should expressly be defined as long-term averages. Because it might be impractical to apply the criteria for carcinogens as human lifetime or 70-year

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[8] These waterbodies, of course, may flow into other waterbodies that are a source of drinking water or fish or shellfish for human consumption. But the criteria would still apply, and apply just as stringently, to those downstream waterbodies. Moreover, discharges to a waterbody to which criteria do not apply, but which affect the quality of a downstream waterbody to which the criteria do apply, are still prohibited from causing or contributing to a violation of the water quality criteria in the downstream waterbody. *See, e.g.,* 40 C.F.R. § 122.44(d)(1)(vii)(A) (NPDES permit limits must ensure compliance with "all" applicable water quality standards).

[9] Similarly, OWQSG suggests that the third sentence in the preamble to proposed Table 40 be revised as follows: "Values in Table 40 are applicable to all waters of the state, other than waterbodies that contain only stormwater and wastewater, designated for fishing (organism only) or domestic water supply (water + organism) uses and are expressed as micrograms per liter (µg/L)."

averages, they could conservatively be defined as annual averages.[10] Unlike the criteria for carcinogens, the criteria for other substances are not based on a uniform human exposure period. In lieu of determining and applying an averaging period for each individual criterion, the criteria for these substances could, at least initially, be defined conservatively as 30-day averages. This would also be consistent with the Department's and EPA's use of a "30Q5" critical receiving water flow (lowest 30-day average flow expected in a five-year period) to establish water quality-based discharge limits for these criteria.[11] Accordingly, OWQSG suggests adding the following sentence to the preamble to proposed Table 40: "The criteria for carcinogens are annual average concentrations, and the criteria for noncarcinogens are 30-day average concentrations."

III. PROPOSED INTAKE CREDIT RULE

OWQSG supports the proposed intake credit rule, which is to be codified at OAR 340-045-0105. One of OWQSG's chief concerns regarding the stringency of the proposed human health criteria is that natural and legacy pollutants could cause exceedances of many of the criteria. In general, when a waterbody exceeds a water quality criterion, discharges to the waterbody must meet water quality criteria at the point of discharge, even if it is not feasible to do so, and even if the source of the pollutants is not the discharger but the discharger's intake water. The proposed intake credit rule would provide some relief for this problem by allowing a facility to discharge a pollutant obtained through its intake water at up to the same concentration as the intake concentration, notwithstanding that the intake concentration may exceed the applicable water quality criterion. Although the rule is of limited applicability—*e.g.*, it applies only to intake water obtained from the receiving waterbody and does not allow any increase in the mass or concentration of the pollutant—it is likely to benefit at least a few facilities that would otherwise be subject to an unreasonable discharge limit.

OWQSG, however, suggests a few minor revisions to the proposed rule, which are shown on the accompanying mark-up of the proposal. These suggested revisions include:

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[10] Moreover, most cyclical variations in water quality occur over an annual or shorter period.

[11] EPA's 30Q5 critical receiving water flow recommendation is a general recommendation in lieu of specific recommendations for each noncarcinogen criterion based on the specific exposure period used to establish the criterion. *See Technical Support Document* 89.

1. *OAR 340-045-0105(1), first sentence of the second paragraph, which reads: "These provisions apply only in the absence of a TMDL applicable to the discharge . . . ."* OWQSG suggests that the Department delete this sentence because it could be read to prohibit an intake credit for any discharger that is subject to a TMDL, regardless whether the TMDL is for another pollutant or whether the intake credit is consistent with the TMDL. The following sentence, which makes the intake credit subject to an applicable TMDL wasteload allocation, should be sufficient.

2. *OAR 340-045-0105(1)(d), exclusion of pollutants in groundwater that are "partially or entirely due to human activity."* The proposed intake credit rule would apply to pollutants in *surface water* that are attributable to human activity but, under proposed OAR 340-045-0105(1)(d), would not apply to pollutants in *groundwater* that are attributable to human activity. Although it is reasonable to exclude from the rule pollutants that are attributable to the discharger itself, whether the intake water source is surface or groundwater should not matter if the discharger is only discharging pollutants that would have reached the receiving water in any event if the discharger had not removed the pollutants through its intake water. OWQSG suggests revising proposed OAR 340-045-0105(1)(d) as follows:

> An intake pollutant from groundwater may be considered to be from the "same body of water" if the department determines that the pollutant would have reached the vicinity of the outfall point in the receiving water within a reasonable period had it not been removed by the permittee, except that such a pollutant is not from the same body of water if the groundwater contains the pollutant partially or entirely due to ~~human~~ past or present activity by the discharger, such as industrial, commercial, or municipal operations, disposal actions, or treatment processes.

3. *OAR 340-045-0105(2)(a), (3)(a), Department discretion.* Although the Department does not intend to give itself the authority to arbitrarily raise or lower each discharger's burden of persuasion, language in these subsections suggests just that by using phrases such as "to the satisfaction of the Department" and "deemed necessary by the Department." The rule sets forth the criteria that must be met to obtain an intake credit, and the discharger is ultimately responsible for ensuring that there is a sufficient factual basis for the Department to find that the criteria are met. There is no need to add to the rule these unnecessary phrases that wrongly imply that the Department will make any decision that it feels like making. OWQSG suggests that the phrases be deleted, as shown on the accompanying mark-up of the proposed rules.

4. *OAR 340-045-0105(2)(b)(C), reopener based on new information.* This paragraph requires a permit reopener authorizing modification or revocation and reissuance of the permit "if new information shows changes in the conditions in subsection (a)(A) through (E) of this section." Changes in information, however, should only lead to modification or revocation of a permit if the criteria in (A) through (E) are no longer met. A change in circumstances that does not affect compliance with these criteria should not be a basis for modifying or revoking the permit. OWQSG suggests that the paragraph be revised to read as follows: "The permit contains a re-opener clause authorizing modification or revocation and re-issuance of the permit if new information shows ~~changes in~~ the discharger no longer meets the conditions in subsection (a) (A) through (E) of this section."

IV. PROPOSED BACKGROUND POLLUTANT ALLOWANCE

The OWQSG strongly supports the proposed background pollutant allowance and appreciates the effort that the Department has devoted to developing this concept. Because, as discussed above, the proposed intake credit rule would apply to only a few dischargers, a background pollutant allowance is needed to prevent unreasonable applications of the human health criteria to facilities at which background pollutant concentrations already exceed an applicable criterion.

A. *Need and Justification for a Background Pollutant Allowance*

The Commission's October 2008 directive on the development of water quality criteria for the protection of human health is admirably ambitious. As the Department knows, the Commission directed the Department to develop criteria based on a fish consumption rate of 175 grams per day. This will result in criteria that are highly protective of all Oregonians and that will likely be the most stringent statewide criteria in the nation. At the same time, however, the Commission directed the Department to propose rules that will allow the criteria to be implemented "in an environmentally meaningful and cost-effective manner." In making these simultaneous directives, the Commission was seeking to provide both a high level of protection to all Oregonians and to ensure that the costs of that protection are reasonable in relation to the benefits.[12]

[12] Another of the Commission's directives was more explicit on this point: "Develop a proposed rule and implementation methods that carefully consider the costs and benefits of the fish consumption rate and (continued . . .)

The constraints of the Clean Water Act, however, make achieving the Commission's simultaneous objectives extremely difficult. In general, those point sources that are required to obtain permits or certifications under the Act must comply with water quality standards regardless of the technological and economic feasibility of doing so, and regardless of the resulting benefits, or lack thereof, to the environment and human health. The effects of this legal constraint are exacerbated by the conservatively protective assumptions that EPA uses to derive the recommended human health criteria that Oregon and other states use as the basis for their criteria, as well as by the high level of protection that the Commission seeks to provide. The resulting human health criteria for some pollutants will be below natural concentrations or below concentrations caused by sources that are impossible or impracticable for Oregon to control (*e.g.*, foreign sources of air deposition). For example, the currently effective human health criterion for arsenic is 2.2 nanograms per liter (parts per trillion), but the natural arsenic concentration in most Oregon waterbodies is 100 to 1000 times higher. Similarly, the currently effective human health criterion for polychlorinated biphenyls (PCBs) is 79 picograms per liter (parts per quadrillion) (ppq), and the proposed criterion at a fish consumption rate of 175 grams per day is 6.4 ppq. Until recently it has not been feasible to measure such low concentrations of PCBs, but new analytical techniques may show that even pristine Oregon surface waters exceed the proposed concentration because of global air deposition.[13] Not only is there no technology available to feasibly treat discharges to achieve such low levels, but the ubiquity of these

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(. . . continued)
the data and scientific analysis already compiled or that is developed as part of the rulemaking proceeding."

[13] *See, e.g.,* Scientific Committee on Antarctic Research (SCAR), *Persistent Organic Pollutants in the Antarctic* (2009), available at http://www.scar.org/treaty/atcmxxxii/Atcm32_ip069_e.pdf (reporting PCB concentrations in Antarctic sea water of 30 to 120 ppq and a mean concentration in Antarctic snow of 0.52 picograms *per gram*, which the report attributes to atmospheric deposition). In addition, a USGS study from the late 1990s estimated PCB water column concentrations at locations in the Columbia River and its tributaries. The estimates at all locations exceeded, and in most locations greatly exceeded, 6.4 ppq. McCarthy, K.A., and Gale, R.W., *Investigation of the Distribution of Organochlorine and Polycyclic Aromatic Hydrocarbon Compounds in the Lower Columbia River Using Semipermeable Membrane Devices*, USGS Water-Resources Investigations Report 99-4015 (1999). The estimated concentrations (with an error estimate of one order of magnitude) ranged from 20 ppq at mile 735 of the Columbia River (near the Canadian border) to 20,000 ppq in Johnson Creek. Estimated concentrations in the Columbia River in Oregon ranged from 200 ppq to 4,000 ppq.

pollutants in the environment means that they will be present at levels in excess of the criterion in most and perhaps all wastewater discharges—for example, through the source's intake water, air deposition onto the source's facility, stormwater run-on, and raw material contaminants.[14]

Because the Clean Water Act generally demands that point sources comply with water quality standards regardless of costs or benefits, the only means of complying with the Commission's directive to develop environmentally meaningful and cost-effective implementation rules for the standards is to tailor the standards themselves to allow discharges that do not pose a significant threat to human health. The Department and its stakeholder workgroup have for the past two years considered several different approaches to tailoring the standards in this manner, but with only limited success.

The proposed rule regarding the human health criteria for arsenic, as well as the recently adopted rule regarding iron and manganese, represent one such approach. For iron and manganese, the Commission determined that no criterion was necessary to protect human health. For arsenic, the Department has carefully reevaluated several of the factors used to derive the criterion. In particular, the Department, with the support of the stakeholder workgroup, chose to use a higher risk factor in light of the high natural concentrations of arsenic in Oregon waterbodies. The Department also proposed to include in the standards specific arsenic evaluation and reduction requirements for certain sources that discharge arsenic upstream of drinking water intakes, even if the sources do not cause or contribute to an exceedance of the criteria.

The Department, however, lacks the resources to undertake a comparable reevaluation of the factors used to derive every human health criterion. Even the Department's reevaluation of the arsenic criterion has not extended to some of the highly complex and technical factors, for which it continues to rely on EPA's recommended value. For this reason, the Department has drafted a more generic, albeit narrow, background pollutant allowance rule. The purpose of the

[14] The examples of arsenic and PCBs show that the human health criteria for some pollutants are below natural or background pollutant concentrations even using a fish consumption rate that is substantially less than 175 grams per day. Although the higher fish consumption rate will make these criteria even lower—if other factors used to derive the criteria are unchanged—the higher fish consumption rate is not the principal source of the compliance problem presented by background pollutant concentrations. Rather, new analytical techniques and greater attention to the issue have highlighted a problem that has been present but largely unknown or ignored since at least the adoption of the currently effective criteria.

rule is to allow certain insignificant increases in pollutant concentrations in waterbodies that exceed the underlying human health criterion. The rule would be limited (1) to circumstances in which the background pollutant concentration does not exceed 97 percent of the 1×10^{-4} human health risk level and (2) to discharges that do not cause a net increase in the mass of the pollutant in the waterbody and that do not increase the concentration in the waterbody by more than three percent.

In order to allow increases in concentrations above a human health criterion, the background pollutant allowance rule must itself be part of Oregon's water quality standards.[15] As such, the rule must be protective of human health. Although an increase of no more than three percent in the background pollutant concentration is intuitively an insignificant increase—particularly given that the increase would be allowed only for dischargers of pollutants that the discharger obtained from the waterbody itself—some stakeholders had questioned whether the rule as previously drafted could objectively be shown to be protective of human health. To address these concerns, the Department has also required in the proposed rule that any increase in concentration not result in a risk level of more than 1×10^{-4}. This provides an objective basis for demonstrating that the rule does not allow unacceptable risks to human health, and also thereby ensures that cumulative uses of the three percent allowance do not result in an unacceptable risk.[16] Although this revision narrows the scope of the rule to human health criteria for carcinogens and to waterbodies that do not already exceed the criterion by more than two orders of magnitude, the rule would still likely enable the Department to issue permits and certifications for a number of point sources without requiring discharge limits that are infeasible

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[15] EPA's regulations authorize states to include in their water quality standards "policies generally affecting their application and implementation." 40 C.F.R. § 131.13. As water quality standards, these policies must be approved by EPA. *Id.*

[16] Because the risk level is intended to apply after mixing with the receiving waterbody, the discharge concentration could exceed a risk level of 1×10^{-4} until it is diluted. But such a pre-dilution concentration would be allowed even without the background pollutant allowance. For example, if a human health criterion for a pollutant is 100 micrograms per liter at a risk level of 1×10^{-6}, a discharge with a dilution factor of 200 to 1 could discharge under current rules and guidance at a concentration of approximately 20,000 micrograms per liter, which would represent a risk level of more than 1×10^{-4} before it is diluted. The intent of the rule is not to change the method by which the Department currently establishes discharge limits but—in this narrow set of circumstances—to change the water quality criterion with which the discharger must comply.

and that provide no significant benefits to human health (and that might actually degrade the waterbody in other respects, such as temperature).[17]

B. *Suggested Revisions to the Background Pollutant Allowance Rule*

The proposed rule would limit the background pollutant allowance to facilities that withdraw their intake water from the same waterbody to which the facility discharges. OWQSG believes that this limit on the scope of the rule is unnecessary, and it suggests that the Department expand the proposed rule to all intake water. Although this would allow pollutant load increases to the receiving waterbody if the intake water is from groundwater or another surface water that is not upstream of the discharge point, human health is affected by the concentration of the pollutant in the receiving waterbody, not the mass load. Indeed, an increase in mass load could actually be accompanied by a *decrease* in the receiving water concentration if the discharge concentration is below the background concentration.[18] Particularly given the narrow scope of the rule, categorically excluding facilities that obtain their intake water from other waterbodies would be unreasonable.[19]

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[17] This rule would become all the more important if the Department's proposed revisions to the arsenic human health criteria are not adopted by the Commission and approved by EPA. If the revised arsenic criteria that are ultimately adopted are substantially lower than the proposed 2.1 micrograms per liter, most waterbodies in the state would exceed the criterion, and the background pollutant allowance rule would be the only means to authorize discharges in those waterbodies without resorting to a variance or a use attainability analysis.

[18] Excluding discharges of intake water that add a net mass load could lead to perverse results. For example, suppose the PCB criterion is 6.4 ppq, the background PCB concentration in the receiving water is 500 ppq, the facility uses groundwater for its intake water at a concentration of 10 ppq, and, because of evaporative cooling, discharges the groundwater at a PCB concentration of 50 ppq. Although this discharge would add a net load of PCB to the receiving waterbody, it would also add a net flow and *decrease* the PCB concentration in the waterbody. Absent the suggested revision to the background pollutant allowance rule, however, the Department could allow this discharge only through the cumbersome and resource-intensive variance process.

[19] Some may object that this would allow a net pollutant load to a waterbody that already exceeds the water quality standard for the pollutant. But, in addition to the arguments in the text, recall that the background pollutant allowance is intended to be part of the state's water quality standards (and must be approved as such), not an exception to the standards.

For this reason, OWQSG suggests revising the proposed background pollutant allowance by deleting proposed paragraph OAR 340-041-0033(6)(a)(C) and the phrase "taken from the same water body that receives the discharge and, therefore, does not increase the mass load of the pollutant in the receiving water body" in proposed paragraph OAR 340-041-0033(6)(b)(A). These revisions are shown on the accompanying mark-up of the proposed rule.

V. PROPOSED VARIANCE RULE

Because EPA requires that a variance from water quality standards meet essentially the same stringent procedural and substantive requirements that would be required to remove a beneficial use designation from a waterbody, the Department has never received an application for a variance, much less approved one. Nonetheless, in the absence of any other viable mechanism for the Department to provide relief from an unreasonable application of water quality standards, OWQSG supports the Department's efforts to revise Oregon's variance rule to make it more useful. OWQSG, however, urges the Department and the Commission to further revise the rule to facilitate the adoption of a variance for multiple dischargers and for categories of dischargers. For dischargers, obtaining a variance will be expensive and time-consuming; for the Department, issuing a variance will require substantial personnel and other resources that are already in critically short supply. Unless the Department considers and adopts variances that apply to multiple dischargers or to categories of dischargers, few facilities are likely to have the time and means to apply for a variance, and the Department will not have the resources to consider or issue more than a few of them. OWQSG's specific suggestions for the proposed variance rule are included in the accompanying mark-up of the proposed rule, together with brief explanations for the suggestions.

VI. DELAYED EFFECTIVE DATE FOR MORE STRINGENT NUMERIC CRITERIA

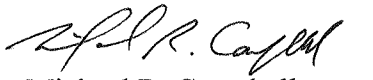
In October 2008, the Commission directed the Department to propose rules that will allow human health criteria based on a fish consumption rate of 175 grams per day to be implemented "in an environmentally meaningful and cost-effective manner." Notwithstanding the diligent efforts of the Department and its stakeholder workgroups, the only implementation rules that have been developed are intake credit and background pollutant allowance rules of very limited scope, as well as modest revisions to the existing water quality variance rule that are not likely to make variances a substantially more useful implementation tool. In addition, the

Department has developed specific revisions to the arsenic, iron, and manganese human health criteria.

Much of the difficulty of developing viable implementation methods is that the potential implementation problems are not yet well known. Until recently, the Department had not focused its limited resources on implementing human health criteria. Now that it has begun to do so, widespread implementation problems associated with even the existing human health criteria, such as arsenic, have developed. As the new criteria are implemented, additional problems are almost certain to develop, but until the problems are identified and understood, it likely will not be possible to develop an appropriate implementation solution. Moreover, the appropriate solution is likely to be specific to a particular pollutant—such as an Oregon-specific criterion or a multi-discharger variance, rather than a generic implementation rule. To allow more time to identify and resolve these problems, while allowing the adoption of revised human health criteria to go forward, OWQSG proposes that the proposed numeric criteria be adopted but with a delayed effective date for those criteria that are more stringent than the currently effective criteria. If that delayed effective date is March 1, 2013, approximately two years from now, there would be sufficient time for the Department to determine the potential scope of likely implementation problems and to develop an appropriate solution for the most important or widespread problems.

Thank you very much for considering these comments and for allowing OWQSG to participate in the Department's workgroups on the development of the proposed rules.

Sincerely yours,



Michael R. Campbell
On Behalf of the OWQSG

Enclosure
cc (w/encl.): Mr. Dick Pedersen
Mr. Neil Mullane
Ms. Jennifer Wigal
Ms. Annette Liebe
Ms. Debra Sturdevant
OWQSG Members