

NORTHWEST ENVIRONMENTAL ADVOCATES



February 6, 2006

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Via E-Mail: rosetta.thomas.n@deq.state.or.us

Re: Proposed Rule Changes for Division 41: Water Quality Criteria for Turbidity, Temperature and Other Standards

Dear Mr. Rosetta:

I. Miscellaneous Corrections/Changes

In the paper “A Summary of Proposed Corrections to OAR Chapter 340, Division 41,” DEQ states that some changes to the maps are proposed that are “consistent with the decision rules.” Id. at 1. These so-called decision rules, despite finally having been put in writing, remain unclear. References to them, therefore, are ambiguous and do not serve to put the public on notice as to the basis of the proposed changes, nor provide any justification in law for them. Specifically, DEQ has made no reference to whether or how it has ensured that the use designations that are based on these “rules” protect the existing uses as of November 1975. Without that information, the public has no way to comment on whether these new use designation updates comply with federal requirements any more than the last ones. For the purposes of this comment, we incorporate by reference NWEA’s comments on the last proposed rulemaking on this topic.

Antidegradation (-0004)

We disagree that DEQ should make section (5) ©) consistent with section (9) in order that they both allow either the Department or the Commission to waive the antidegradation requirement. There is no policy rationale for waiving the antidegradation requirement in the first place and certainly to do so should be a Commission prerogative, not a staff decision in all instances.

Dissolved Oxygen (-0016)

Contrary to the court interpretation in Northwest Environmental Advocates v. EPA, DEQ intends to adopt a narrative rule for the application of its spawning criterion for resident trout that

“applies to the time period when spawning through emergence occurs for those species.” The entire requirement of fixing in rule the dates and places where certain life-cycle criteria apply is undermined by DEQ’s adopting this approach. Taking a “we-know-it-when-we-see-it” approach provides little if any protection to the uses, is subject to interpretation, fails to assess how existing uses are protected, and perpetuates ambiguity. It is not acceptable.

Section (5) Unidentified Tributaries

In this proposed rule change, the Department intends to withdraw any protection from temperature from tributaries to waters used for salmon and steelhead spawning that are not identified as supporting that use. By doing so, DEQ leaves nothing in place to protect the water quality required for this use, thereby violating the Clean Water Act.

Toxic Substances Criteria (-0033)

We agree that EPA regulations preclude the State from using criteria that have not been approved by EPA unless they are more stringent than the former criteria. However, DEQ has not made an assessment of whether all of its toxic criteria are, in fact, more or less stringent than the previous ones. Absent this assessment, which is not always straightforward, it is impossible to comment on this proposed change.

Temperature Criteria

We concur with EPA’s views, as set out in DEQ’s October 10, 2005 memo, “Summary of Proposed Revisions to Four Narrative Criteria in Oregon’s Temperature Standard.” The assumption that ambient temperatures, which are frequently unknown to DEQ, represent natural background conditions is an unsubstantiated assumption. Water quality standards are intended to provide the goal for the entire waterbody, not a source-by-source restriction, unless no other methods are available. A source-by-source approach must take into consideration the potential cumulative effects on beneficial uses. Substituting the combination of a statement about the assumption and a change in the vocabulary results in the same rule that DEQ is trying to fix. Therefore, most of these changes are nonsensical if one is attempting to respond to EPA’s concerns.

340-041-0028(6) – Natural Lakes

We agree that to the extent lake temperatures have been raised by inputs from rivers and streams that have been warmed, a TMDL is the way to establish what corrective actions are required. A TMDL, however, is not a water quality standard – despite DEQ’s frequent confusing of the two

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so a TMDL does not establish what the goals are for protecting beneficial uses; the standards do.

In other words, DEQ must still have standards for temperature for all of its waterbodies; it cannot postpone the establishment of standards until such time as a TMDL is done. Moreover, since DEQ's TMDLs are done at a large subbasin scale, DEQ frequently overlooks the pollution issues that are related to temperatures in smaller scale waterbodies, which are likely to include some or all lakes. Finally, without standards DEQ has no mechanism to determine that a lake is failing to comply with standards such that a TMDL would apply to it in the first place. Therefore, not only would it not be listed on the 303(d)(1) list, the TMDL would not apply to it, and its anthropogenic warming likely would not be evaluated.

We agree that DEQ should not "embark upon a modeling program" to estimate natural lake temperatures but if any activity – point or nonpoint source, on the lake or upstream of a tributary to a lake – is to take place, it is incumbent upon DEQ to undertake sufficient monitoring to determine the ambient conditions and to determine if they are natural or not, and if they are not determine the extent to which they are anthropogenic (i.e., a monitoring and modeling exercise). Otherwise, substituting "natural condition" for "ambient" has no real practical effect, meaning the change is meaningless. Put another way, unless DEQ has a program to make these determinations, the standard should simply say that no increases of any size are allowed. Moreover, the proposal to include a narrative that says no increase in temperature would be allowed that would impair the beneficial use is meaningless. First, an increase that meets this requirement could be substantial, so long as it doesn't "impair" the use. It could cause significant temperature increases throughout the waterbody or in portions of it, that a DEQ staff person determines is short of "impairment." Second, this impairment is not defined. Third, an increase that is capped at causing impairment does not address the very cumulative impacts about which EPA expressed concern. This approach – of setting the standard at an unknown natural condition and allowing warming up to but slightly short of the point of impairment – hardly provides protection for beneficial uses or takes future sources of warming into account, from either an environmental or socioeconomic perspective. DEQ should consider whether there is any basis for allowing warming of lakes under any circumstances. If not, the best approach would be to include a non-degradation standard (i.e., no anthropogenic warming allowed).

DEQ's inclusion of a statement that absent a discharge or human modification that would reasonably be expected to cause increased lake temperatures it will treat the ambient temperatures as "natural" demonstrates a lack of understanding of the impacts of global climate change both now and in the future. In addition, given that the reference to human modifications does not clearly extend to upstream modifications, this should be clarified. This language also disregards the potential for a human activity to impact some of a lake's water quality without affecting all of it. So, for example, there could be a warm plume from a tributary that would not be deemed to have affected the entire lake although it had degraded part of it. An unmeasurable warming throughout the lake would also be considered insignificant whereas numerous unmeasurable amounts of warming lead to water quality degradation. Throughout the state, there are likely relatively few places where one activity or one source at one point in time is

solely responsible for any pollution problem as opposed to the cumulative small degrading activities. In addition, this stated assumption would apply even though DEQ had conducted no analysis, including but not limited to a TMDL. For this reason, DEQ would not know whether there were seasonal changes or any changes at all prior to applying this untested assumption. This is not appropriate.

340-041-0028(9) – Cool Water Species

NWEA repeats the comments regarding the substitution of “natural conditions” for “ambient” and a narrative condition that prohibits impairment of a use that apply to lakes above. In addition, DEQ’s thought process about protecting cool water species exhibits the same oversight that is inherent in its use designations: it omits an analysis of existing uses, as defined by EPA regulations. In stating in its memo that the CWA does not require streams to be restored to a natural condition, DEQ omits that those waters that supported cool water species any time after November 1975 are, in fact, required to be protected at that level. (See NWEA’s comments on previous rulemaking for a more extensive discussion of this issue.) This analysis is completely missing from DEQ’s discussion paper. On the other hand, we do agree with DEQ that given the threat to beneficial uses, many of which are listed as threatened or endangered, from the ubiquitous temperature problems throughout the state – and the complete lack of any action on the part of DEQ and EQC to remedy the biggest sources such as logging, farming, grazing, and water withdrawals – setting specific cool water criteria is among the least important activities facing the agency. Given a range of poor choices, we support adopting a conservative numeric criterion and accepting that it could be perceived by some as “over-protective.” Again, given the failure of this and other agencies to make any meaningful headway in restoring natural stream temperatures and regimes to Oregon’s waterways, adopting a criterion that could possibly provide more protection than is absolutely necessary will hardly have earthshattering effects on Oregon’s economy. Once again, the proposed language on not impairing a beneficial use begs the question of where the use is allowed to thrive. First, clearly DEQ intends to continue using mixing zones that preclude healthy use of portions of waterbodies, and second, the analysis of whether one new source never appropriately takes into consideration the cumulative degradation that has already occurred.

As far as DEQ’s proposed approach of evaluating whether sources on the Klamath River could meet the human use allowance of .3° C in order to evaluate whether they impact beneficial uses, this is absurd. The entire premise of the human use allowance is to allow heating of an area at the point of discharge and see if the source has the ability to heat up an entire waterbody after it is mixed with all or a portion of a receiving stream. Is this an appropriate policy for the Klamath?

340-041-0028(10) – Borax Chub

We disagree that, in general, DEQ can make the assumption that since it has no particular reason to believe the temperatures of a waterbody have changed, they have not changed. That said, there is no reason to adopt language, as discussed above, that allows for alterations in Malheur Lake Basin lakes supporting the Borax Lake chub up to but short of a change that would cause impairment to the species. A protective standard would be one that provides for DEQ's monitoring of the lakes at some point in the future to assess ambient levels, and use professional judgment to evaluate whether such ambient levels are likely also natural conditions, in combination with a standard that prohibits any decrease in temperature.

340-041-0028(7) – Ocean and Bays

We disagree with the staff proposal to substitute “natural conditions” for “ambient temperature,” as, according to DEQ, both have no meaning. Given the widespread devastation of Oregon's estuaries, an appropriate approach would be to prohibit any additional warming from sources in bays and from upstream sources. Otherwise, DEQ will simply allow mixing zones that create pockets of warmer water in areas that are likely important to cold-water species, likely making the current temperature problems more pronounced and likely within the same zone of use as those species. Given that the warming of bays from upstream sources is extremely unlikely to be controlled within the next one to two hundred years, given DEQ and other agencies' failure to act, taking this conservative approach to preserving the coolest possible temperatures throughout the bays is good public policy. Our comments on the language concerning DEQ's assumption is addressed in the section on lakes above.

Mixing Zones (-0053)

Naturally, we agree that DEQ should remove the alternate mixing zone rule.

Beneficial Use Designations

The removal of spawning as a designated use in the Willamette River from Newburg to the Yamhill does not address whether the “policy to use the ODFW database” and the “decision rules and methods used to develop the spawning use designation maps” are consistent with federal law. Specifically, neither the database nor the decision rules have been demonstrated to result in the protection of existing uses. This comment also applies to this proposed change on the “Catherine Creek and a small tributary to named Pyles Cr.”

II. Turbidity Standard (340-041-0038)

Overall, this proposed standard seems to take one step forward and one step backwards. For CWA § 401 certifications, which have been handled on a basis of Department staff's judgment, the rule offers some new direction and guidance while steering clear of sufficient instruction. For NPDES sources, the rule both places more restrictions on DEQ staff and allows more turbidity from point sources, while half-heartedly endorsing the notion that site-specific concerns should be applied to limit turbidity. In contrast, it is our understanding that DEQ's current turbidity standard is based on not causing sufficient light reductions to alter the primary production of lakes, which is an inadequate basis for a turbidity standard. As a result, DEQ's current turbidity rule is not measurable, is probably lower in some cases than is required for protection of beneficial uses although it does not take cumulative impacts into account, is likely not practical for most sources to meet, and is not used routinely or enforced on a regular basis. If this rule is not necessary for the protection of beneficial uses and it is likely expensive and even impossible for sources to meet, then making alterations is reasonable, so long as the proposed changes take into account the needs of beneficial uses and the way in which the Department does apply the standard and will continue to apply it. We agree with the overall goal of preventing impacts to beneficial uses by reducing smaller amounts of turbidity over long periods of time and larger amounts of turbidity over short periods of time. (It goes without saying that large amounts over long periods should be prohibited.)

We appreciate DEQ's making available a draft "Implementation Guidance for Turbidity Standard" concurrently with its proposed rulemaking on the turbidity standard. Although this implementation guidance contains many ambiguities, it is helpful for DEQ to set out its intent on interpreting its rule at the same time as the rule itself.

340-041-0038(2)(a) – Maximum Turbidity

Turbidity is naturally extremely variable and Oregon's aquatic species have adapted to this variability. Even so, anthropogenic contributions are not what species have adapted to and these can cause behavioral responses which this standard should prevent. For waters where background turbidity is lower, less than 33 NTU, the proposal caps individual anthropogenic contributions at 5 NTU. This is a level that is readily enforceable and likely does not cause harm to beneficial uses, so long as it is of short duration. To the extent that the background turbidity is natural or primarily natural, we agree that slightly larger anthropogenic contributions can be allowed without an expectation that they will cause impacts to the beneficial uses that are not otherwise being caused by the natural levels.

340-041-0038(2)(b) – Monthly Average Turbidity

In order to respond to one of the problems with the existing standard, namely its lack of easy enforcement, the new standard must remedy that problem. DEQ's proposal calls for an average of 3 NTU, where background turbidity is 30 NTU, and not more than 10 percent, where background levels are over 30 NTU. If 3 NTU has been chosen because this is a level at which a behavioral response is likely, and this criterion is intended to apply to monthly averages, then the 3 NTU level should be lower in order to account for the substantial amount of time the source would exceed the 3 NTU. Given that behavior impacts would be expected at 5 NTU over time, an average of 3 NTU would allow these same behavior impacts a significant part of the time. On the other hand, since this standard is written to apply to single sources, not the waterbody as a whole, it would be too high in instances where there are many sources contributing turbidity to a waterbody. To the extent that the background turbidity is natural or primarily natural, we agree that slightly larger anthropogenic contributions can be allowed without an expectation that they will cause impacts to the beneficial uses that are not otherwise being caused by the natural levels.

340-041-0038(c) – Visual Criteria

The meaning of this provision which restricts conspicuous plumes to the compliance points unless the plume is consistent with numeric or any other criteria in the rule, is unclear. Presumably, if the plume is consistent with the rule, this criterion does not apply; if it not consistent with the rule, it is inconsistent with the rule notwithstanding this additional provision. If the intent is to create an additional provision that provides more protection then the phrase "except as consistent with the numeric or other applicable criteria stated in this rule" must be removed. If the intent of this provision is to state that any amount of turbidity that is not visible is not environmentally-relevant, this statement should be placed in a preamble or be included as a straightforward criterion. Finally, whether a plume is conspicuous is a product of several variables including the color of the bottom and the color of the particles; it is therefore not a particularly accurate method of assessing turbidity levels that could cause harm to beneficial uses. Even more important, to the extent that DEQ – and the public – are required to rely on the representations of what vested polluting interests think they are seeing, rather than what they are actually measuring, this is not a reliable provision. We are particularly concerned with portions of this standard that might encourage DEQ staff to allow sources to substitute what they can see – or choose to see or not see – for actual water quality monitoring data that are reported.

340-041-0038(d) – Exceedances Allowed

We agree with DEQ that acknowledging that there will be limited duration exceedances in the standard is an improvement over the current situation in which DEQ pretends that there are no such exceedances and/or issues regulatory documents, such as 401 certifications, knowing full

well that their terms will not be met. We believe that this makes a mockery of the regulatory system and that it is better for DEQ's regulatory actions to correspond with its rules and standards. So, for example, for dredging, DEQ has long pretended that such operations were limited to 10 percent above background, knowing that sources were not meeting this restriction. This left to the staff to include explicit instructions, in the unlikely event that any were included, that restricted the duration of these real but not acknowledged exceedances. The other benefit of including this in the rule is that it should result in greater incentives for operators to comply with the requirements or be shut down. That said, this will only work if the monitoring required by DEQ staff corresponds identically to the requirements of the rule. Since this is not something that DEQ staff have been doing, we consider it essential that a statement to that effect be included in the rule itself. Otherwise, the only recourse by the public to ensure compliance with these regulations is an expensive appeal of an NPDES permit or 401 certification. The burden should not be borne by the public where DEQ fails to ensure compliance.

This section also has no reference to the status of beneficial uses in the waterbody affected by the allowable exceedances. So, for example, exceedances may range from 30 NTU to 50 NTU regardless of the background – which in the other provisions of the rule is considered important – and regardless of the life cycle stage, the waterbody's use by species at the time of the activity, and the location of the turbidity-creating activity. Despite these being termed “exceedances” and clearly far more allowable turbidity than allowed elsewhere in the rule, there is nothing in this section that limits these exceedances to any human activity that is socially or economically desirable or necessary. As far as the rule is concerned, any activity is allowed to cause these higher levels. In subsection (d)(B), DEQ would allow these exceedances without any contemporaneous monitoring, relying instead on “existing relevant data,” which undermines the entire premise of this rule. This section has all the hallmarks of undoing the benefits assured by the other provisions of the rule.

340-041-0038(2)(e) – 401 Certifications

The first thing that must be said about this section of the proposed rules is that it is absurd to put “essential dredging,” which poses only threats and no benefits to sensitive beneficial uses and “ecological restoration” in the same section. In addition, an emergency is an emergency and should not be treated as an economic benefit or an ecological restoration project.

A water quality standard is intended to provide protection to designated uses and existing uses that have not been designated. In order to include provisions that supplant this required protection with exemptions to accommodate important social and economic considerations, the Department is required to complete a Use Attainability Analysis (UAA), the formal process set out in EPA regulations to accomplish the balancing of required protections with certain practical considerations. Instead, DEQ sets out a provision that allows is to authorize “essential dredging activities to exceed the criteria” so long as they comply with four provisions set out in

subsections. These provisions do not include any restriction on use of ODFW work windows, the overall time of the activities which are allowed to exceed the criteria, or the considerations discussed in the paragraph immediately above, and really just amount to authorization to the Department – without any oversight by the Commission, the EPA, or the Services – to allow unlimited amounts of turbidity, over any area, for an unlimited time so long as it finds that there is some good somewhere in the basin, that there is no permanent impairment due to turbidity, sediment, or sedimentation, and that it talks with ODFW. In other words, individual DEQ staff will determine what the water quality standard is that applies to the activity without any oversight whatsoever. In addition, there is nothing in these findings, when taken individually and as a whole, that ensures that the standard as written will provide for the full protection of the most sensitive beneficial uses.

The first of these provisions is a Department finding that the source cannot “practicably comply with criteria,” which is exactly the kind of finding that requires compliance with EPA’s UAA regulations. This must be clarified in the rule and the implementation guidance.

The second is a finding that the so-called essential dredging “will achieve long-term gains in the protection of beneficial uses that outweigh its potential adverse impacts to beneficial uses, or will offset or mitigation negative impacts to beneficial uses by achieving positive gains on the site or else where in the basin.” There are three types of dredging that might be contemplated as “essential” by some parties: 1) dredging to clean-up contaminated sediments, 2) navigation dredging, and 3) navigation dredging that also removes and disturbs contaminated sediments. The new definition limits the intent of this rule to item nos. 2 and 3. It is unclear why DEQ could consider any dredging solely for the purpose of maintaining or increasing channel depth to be an activity that would achieve any gains whatsoever in protecting beneficial uses. In fact, the only likely outcome of “essential dredging” for navigation purposes is further destruction of habitat and further short- and long-term degradation of water quality. Therefore, this entire section is nonsensical.

Each of these three types of dredging involves or has the potential to involve the displacement of contaminated sediments directly or by creating side-slope adjustment that mobilizes toxic contaminants outside the area being dredged. Yet nothing in this rule acknowledges that hazard, despite the Department’s use of turbidity as its measuring stick for whether dredging will cause water quality problems including when dredging is proposed for contaminated sites, such as those associated with the Portland Harbor Superfund site. In every instance where contaminated sediments are being dredged for clean-up purposes or for navigation purposes, but with the knowledge that sediments are contaminated, the Department will be able to “find” without any analysis whatsoever that there are long-term gains in removing the material from the waterbody to an upland disposal site. To find long-term gains says nothing about the short-term costs, and an evaluation of whether those short-term costs are worth it in terms of making toxic contaminants available to a food chain and species that are suffering serious ill effects of toxic

contamination. In other words, this provision is already resolved in favor of the action prior to DEQ's making a finding. This not only precludes the kind of analysis which should examine whether capping, for example, is a more appropriate solution, but also the manner in which the material will be excavated and removed. Given the lack of specialized clean-up dredging equipment in the region and the serious and documented problem of operator indifference to careful dredging of contaminated material, this is no trivial question. Additionally, DEQ has a history of relying upon the use of the Dredge Material Management Framework (DMEF) – the purpose of which is to evaluate the safety for disposal – as if the disposal of the material is the same as evaluating the effect of disturbing the material and hauling it out will be. So long as the turbidity standard is DEQ's mechanism for addressing these issues, the rule must be written to take that into account.

The ambiguity of this subsection is then further muddied by the following language that allows the activity despite whatever impact the exceedances of turbidity might have on beneficial uses if it “will offset or mitigate negative impacts to beneficial uses by achieving positive gains on the site or else ware [sic] in the basin.” To the extent that this phrase is referring to the benefits of “channel restoration” – channel banks being restored, natural sinuosity being restored, or accumulations of sediment being removed to restore a more natural width:depth ratio – the Department's finding that such restoration will improve the site or mitigate for the ubiquitous negative impacts elsewhere in a basin is entirely pro forma. In other words, this section is utterly meaningless because, of course, the Department can find that restoration is a good thing and that somewhere in a given basin there are negative impacts worth mitigating.

How this section applies to restoration, on the one hand, and “essential dredging,” on the other hand, is unclear. If the dredging is to remove contaminated sediments, the Department needs to set out a process by which it will determine and weigh the risks of removal versus in-situ containment. If the dredging is for navigation purposes, it is unclear how that activity will achieve long-term gains for any beneficial uses other than the designated use of navigation, in which case the standard is not protecting the most sensitive beneficial use but the economic and least sensitive use. If this is intended to reference navigation dredging then presumably this finding will involve a weighing of the economic impacts of the so-called essential dredging (“long-term gains in the protection of beneficial uses”) against the environmental impacts caused by such dredging (“its potential adverse impacts to beneficial uses”). In fact, anything short of this will render the language meaningless. However, we doubt that is what the Department has in mind. Such phrases as “achieving positive gains on the site” do not clarify what kind of gains the Department has in mind: economic gains to private and public interests or protection of the health and welfare of aquatic and aquatic-dependent species and human health.

The third provision is a finding made by the Department that there “will be no permanent impairment to any beneficial use from the activity due to or as a result of turbidity, sediment, or sedimentation impacts.” This finding is ambiguous because it refers to a “permanent”

impairment, something not defined in these rules. Is a health impact to part of a population of fish that will naturally die anyway (we all die some time) not a “permanent” impairment? Are temporary beneficial uses not entitled to the same legal protections under the Clean Water Act as so-called permanent ones? This type of standard is written so that DEQ staff issuing 401 certifications can find that while there may be some effects, nothing will rise to the level that will stop, slow, or condition any project under consideration. In other words, it is a meaningless provision. Moreover, it is restricted to the turbidity and sediment itself, rather than the toxic constituents of the sediment, whereas its most likely use to promote environmental protection is in assuring that dredging activities do not result in increased contamination and bioavailability.

The last requires coordination with the Oregon Department of Fish and Wildlife before authorizing exceedances of this section and therefore provides no protections – it is just a process – and also fails to ensure that the preeminent authorities on the protection of federally-designated threatened and endangered species – NMFS and USF&WS – are included.

In contrast to the evaluations currently done pursuant to the DMEF, DEQ’s analysis of the potential for toxic releases should focus on the release to the water column and the redistribution of contaminated sediments as a consequence of dredging activities. The more turbidity that is allowed, the greater the amount of contamination that will settle out in the sediment surrounding the dredged area rather than be released to the water column. This redeposition is a pollution source because it takes a buried contaminant and makes it bioavailable. In addition, the greater the amount of turbidity the farther it will travel when it is redeposited. Turbidity is an essential measurement for toxics because the other alternative, suspended solids, does not include the small particulates, such as clays, that pass through filters for suspended solids. These colloids have a toxic effect, however. Therefore, this turbidity standard should explicitly include its role for the protection of beneficial uses from buried toxics. The criteria should answer the questions: how much resuspension should be allowed, for how long, and how far should it be allowed to go? Then the standard can be the basis for 401 certifications that include requirements for best management practices, restrict the duration of dredging, and establish reasons for monitoring which, in turn, can drive monitoring locations and protocols, and ensure that where there is no compliance activities must shut down.

For example, there is no reason why pre-dredging samples of material cannot be taken and used to estimate the correlation between turbidity levels and toxicity prior to the activity taking place. Monitoring data from fiascos, such as the recent GASCO dredging, can be analyzed to make additional determinations. Such restrictions built in to the turbidity standard would result in DEQ’s requiring in advance of dredging, the kind of BMPs it only required after monitoring results demonstrated exceedances of toxic contaminants and dead fish. There is no reason why DEQ should not be requiring handling, settling, treatment, clear monitoring (i.e., where, when, what, how) and regulatory ramifications. For example, once monitoring demonstrates that certain limits have been reached, it must stop. Not only would this provide protection to the

beneficial uses but it would create a financial incentive for sources involved in dredging to be careful. Monitoring should take place at the point of treatment, at the point of discharge, and outside any containment barriers that have been installed. Compliance distances must be set in advance by the Department based on what is acceptable to the beneficial uses. This information would not only prove useful for minimizing the impact to waterbody uses but would also allow DEQ to more intelligently regulate future sources.

340-041-0038(f) – The Department May Set More Protective Limited Duration Criteria

We strongly agree that the Department should provide additional protection to some sensitive designated and existing uses, such as drinking water intakes and spawning redds. We disagree that the proposed standard accomplishes this end because it merely acknowledges DEQ's discretion to provide this protection without requiring it. The problem starts with the use of the word "may," which means that the Department's protection for these more sensitive beneficial uses is discretionary, in contrast to EPA regulations which require the Department's standards to achieve this end. Therefore, subsections (B), (C), (D), and (E) require the level of protection that is adequate to ensure they are not impaired but they are optional as the rule is currently drafted. Subsection (F) should be clarified so that it includes those circumstances where DEQ uses the turbidity standard in order to purportedly control, through a 401 certification, the release of toxics from contaminated sediments that are to be dredged. In such an instance, DEQ should assess and quantify the likely release of toxics, determine their impact on beneficial uses (both aquatic and water-dependent species such as birds and mammals, and the redeposition of disturbed toxic contaminants). The "cumulative impacts" included in the rule language should be clarified to include the cumulative impacts of additional toxic releases to species already impaired by toxic contamination. Moreover, as above, this must be mandatory, not discretionary, to ensure the full protection of the designated beneficial uses.

340-041-0038(3) – Points of Compliance

There is no justification for setting points of compliance, i.e. de facto mixing zones, in the water quality standard. One effect of this, given that the points of compliance are further downstream the bigger the waterbody, is to heighten the impact of the fundamental concentration-based approach of water quality standards. Here, the larger the waterbody, the more of a turbidity impact is allowed – in terms of area, volume, and concentration at the point of discharge or activity – as if the aquatic uses of the larger waterbody are immune from the adverse effects being protected against in the smaller waterbody. (If water quality standards were applied throughout a waterbody, with no mixing zones allowed, every waterbody – large or small – would be protected to the same extent. The only difference would be the amount of pollution allowed and the degree of pollution treatment required.) To the extent that the Department relies upon the notion that the de facto mixing zone can be larger in a larger waterbody because aquatic

life such as fish can choose to avoid it, the agency must demonstrate there is a basis for this assumption. And, for turbidity, it must evaluate the behavioral responses to the turbidity in a mixing zone. Moreover, unlike a mixing zone analysis done for an NPDES permit, this standard sets the points of compliance in rule so that the Department does not have the discretion to require compliance at the point of discharge, for example (unless, of course, it chooses to establish criteria for a limited duration exceedence, pursuant to subsection (f), a far more resource-intensive activity than simply eliminating the mixing zone). This would be an appropriate response if the activity were overlapping or near other discharge points, such that the assumption of fish avoidance was negated, or for any number of other reasons why beneficial uses should be protected at a higher level.

The issue of including compliance distances or mixing zones is related to the question of what scale the standard protects: near the discharge or activity, a small section of the waterbody, or the waterbody as a whole? Including compliance distances has the effect of eliminating protection for the area near the discharge or activity and focusing the question of protection on the small section instead. (Since the standard does not apply to waterbodies, but instead sources, and because it does not prevent cumulative effects, it does not consider the larger waterbody. This may be appropriate for the parameter of turbidity which at a waterbody scale is likely more affected by natural sources than anthropogenic ones.) We question the near-scale focus being solely on a downstream distance rather than the point of discharge/activity. There are several reasons. One is that, depending on the nature of the stream, many things can happen to the turbidity as it flows from the point of discharge/activity to the compliance point. So, depending on the season, the flow, the bathymetry of the waterbody, even if the discharge were the same, the results could vary at the point of compliance. This raises questions of equity and whether there is a compelling policy reason to create inequity in measuring compliance downstream.

The second issues this raises is why the turbidity rule should not provide protection to beneficial uses no matter where they exist. Sources should not be allowed to cause impairment within a range of the discharge or activity because the standards fails to provide adequate protection in that area. To the extent that DEQ does not know what the impacts of smaller scale turbidity increases are, it should seek compliance at that level rather than assume there are no impacts.

Including the compliance point in the standard also creates a de facto mixing zone for each source. This means that, contrary to what should occur in any regulatory action, all sources are given a mixing zone regardless of whether it is justified and without any analysis of its effects. This is a bad precedent. This problem is most heightened in the standard's application to general NPDES permits. For other sources, including the mixing zone in the standard eliminates the discussion and the public debate about what is acceptable: how far should it extend, what is the allowable duration of this extent? Particularly for 401 certifications, but also for 402 NPDES permits, we believe that – whether in rule or guidance – DEQ's standards should provide more direction to staff. Otherwise, interpretation of this rule will follow the lead of the existing

Tom Rosetta
February 7, 2006
Page 14

standard and will result in a hodgepodge of interpretations. Restrictions on turbidity should not be directly related to the degree to which a source can “beat up” DEQ staff. However, once DEQ goes down this path, it must commit to it wholeheartedly. This means, for example, that it must strengthen the provisions that provide a sufficient level of protection rather than making them, as they are in the current proposal, discretionary.

Sincerely,

Nina Bell
Executive Director