

**Comments Received by Washington Department of Ecology on  
Draft Water Quality Trading Framework**

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## General Comments on Trading

1. We do not object to the concept of trading as long as the trading framework and specific trades meet rigorous standards.
2. The Draft Framework contemplates a number of decisions that must be made before trading can begin, including the types of projects that can generate credits, the methodologies used to calculate the amount of credit assigned to a pollutant reduction project, and how monitoring to document credits will be incorporated into existing models. Since these decisions will have a major impact on the feasibility of the trading program, Ecology should not make them in isolation. We think it is critical that Ecology consider input from the parties who will participate in the trading programs, including entities that receive wasteload allocations or other responsibilities based on a TMDL.
3. We appreciate the invitation to comment on the proposed Trading Program. However, we find the proposed Trading Program to be lacking in several important areas. As set forth in the comments below, the Trading Framework falls short of meeting the legal requirements of the Federal Water Pollution Control Act, 33 U.S.C. §§1251 *et seq.* (“Clean Water Act” or “CWA”) in a number of ways and does not provide reasonable assurances that the water quality standards for oxygen-depleting pollutants will be met. *See* 33 U.S.C. § 303(d)(1)(C); 40 C.F.R. § 130.7(c)(1)(i). As KEA, Spokane Riverkeeper and The Lands Council have explained throughout this process, the Clean Water Act is silent on the issue of nutrient trading as a means to meet National Pollutant Discharge Elimination System (“NPDES”) permit limits, and the only way the groups will approve of this process is with concrete evidence that water quality improvements will and are occurring in Lake Spokane.
4. “What is a credit? Generated by a point source by over-controlling its discharge-going beyond reductions required by its WLA-based permit limit or its existing permit limit, whichever is more stringent.” (Page 7). The Department opposes this type of credit because it establishes in essence a right to pollute that can be sold. In short, if dischargers are able to discharge less than their permit limits or waste load allocations then those allocations or limits should be reduced. The Department is very concerned because the margin of safety is fragile at best in the Spokane River Dissolved Oxygen TMDL, and if oxygen-depleting pollutants can be reduced by a discharger then that should not allow another discharger the ability to exceed their WLA or permit limits by purchasing a credit.
5. As a strong supporter of water quality trading, Pierce County is encouraged that Ecology intends to establish a trading program in Washington State. We believe trading offers the potential to achieve better water quality benefits quicker and at lower overall costs. In order to realize those benefits, we would like to see Ecology encourage trading by providing certainty to project proponents and to facilitate early actions. We may be willing to participate in a pilot trading program to help flesh out Ecology’s draft framework and serve as an example for application throughout the state.
6. The first paragraph of the cover letter states that the framework document “is meant to serve as a ‘regulatory recipe’ if an area is interested in developing a water quality trading program...” This seems to suggest that Ecology expects individual dischargers or jurisdictions to take the lead in developing trading programs. Will Ecology actively encourage and support the development of trading programs?
7. The second paragraph [of the cover letter] states that Ecology did not want to create another detailed guidance document, but then goes on to state that Ecology “sees the need to be explicit about the steps needed...” Pierce County believes that explicit procedures and criteria are essential to a viable trading program. Therefore, we recommend that Ecology establish general procedures based on the EPA guidelines and the Idaho and Cherry Creek (Colorado) examples, and work with trading proponents to develop the specific procedures and criteria early in the development of each program.

8. The draft framework document states that Ecology will determine the amount of credit that will be allowed for the proposed actions. As noted in preceding comments, Ecology needs to establish the specific criteria and procedures it will use to judge estimation methods, set baselines, and establish trading ratios, so trading proponents can determine whether a given trade is likely to be viable before spending substantial time and money developing proposals, preparing QAPPs, conducting studies, and preparing reports.

9. WSDOT is supportive of a water quality trading program in Washington. In the future, we may want to participate in the trading program under our NPDES Municipal Permit's TMDL implementation requirements. However, we are concerned with relying on Waste Load Allocations (WLAs) as an indicator of compliance and a baseline for the trading program, as it applies to TMDLs. In our experience, many TMDLs are developed lacking stormwater data. In the absence of data, various methods and models are used to predict stormwater contributions. Many times, the models used are based on generic impervious cover estimates and pollutant concentration values that may not be representative of Washington highways. WLAs are assigned to WSDOT based on these generic methods and models. We are concerned that these potentially erroneous values (WLAs) will be the baseline of the proposed water quality trading program, as it applies to TMDLs.

We understand this document was written in general terms to provide a framework for trading that may be implemented under many different permits or programs. However, to provide more clarity, we suggest adding sections to the document that would provide specific guidance to the different audiences on how trading would/could apply to them. Suggested audiences include: NPDES Municipal Stormwater permittees, NPDES Industrial permittees, non-point sources who are not permitted under NPDES, and NPDES General Construction permittees (if trading applies to that permit as well). As it is, this document is unclear exactly who trading will apply to and how it will help/affect permit compliance and their overall programs.

We also suggest adding a glossary to define some of the terms used in the document that can be confusing or seem to be used interchangeably. Some examples are: effluent limitation, water quality standard, WLA, load allocation, offset, best effluent technology, credit earner, credit buyer, discharger, proponent, and participant.

10. Page 7, "Ecology issues NPDES permit," 151 paragraph, 2nd sentence: "By issuing the permit, Ecology presumes that the total of the permit holder's own discharge and any credits claimed to meet the TMDL wasteload allocation are in compliance with state water quality standards, provided that the permit holder adheres to all conditions of the permit and any other trading requirements." It is our understanding that meeting a WLA is not the same as, or presumed the same as, meeting water quality standards. Our understanding is that if all point sources within a TMDL meet their WLAs, and all nonpoint sources within a TMDL meet their LAs, then water quality standards are presumed to be met in the water body for which the TMDL is established. Our understanding seems to contradict the cited statement.

11. This document was written to address water quality trading as it may apply to various audiences. As written, it is not clear how trading would/could apply to each audience and who is responsible for different elements of credit trading (monitoring, operation and maintenance of BMPs, etc.). We would like the opportunity to review and comment on this document again after our comments and questions have been addressed.

12. We very much appreciate that the Washington Department of Ecology has undertaken to produce a policy framework for water quality trading in our state. Such a framework is badly needed. Its continued absence would have been a significant deterrent to local communities who might wish to take advantage of the much needed benefits of water quality trading – both environmental and financial. Thank you for moving ahead with this. And thank you for providing the opportunity to comment.

As you know, we at American Farmland Trust have been working for some time to encourage credible trading programs here in Washington and throughout the county. Water quality trading offers the opportunity for

communities to meet and exceed water quality standards (whether there is a TMDL yet in place or not) while also improving environmental quality in other critical regards. It also helps to keep rural agricultural lands in farming and out of development – itself a highly desirable environmental goal. If, however, the rules we create make responsible, credible trading impractical, the potential for these immensely valuable benefits will evaporate. So it seems well worth the struggle to design a trading system that can credibly and effectively protect and improve water quality while also reducing social costs and achieving these other valid social goals.

13. The overview section takes pains to make a strong statement (p.1) that the purpose of trading is NOT financial gain. But it seems unclear why this language is needed. And the intent is a bit confusing considering that the overview also clearly acknowledges that one of the valid objectives of trading is cost savings – a particularly critical recognition in the water quality trading arena where there is frequently a dramatic difference in financial cost between meeting water quality standards using technology infrastructure and meeting them using watershed restoration through BMPs implemented by farmers and ranchers.

Perhaps it might be sufficient simply to state that even though cost savings are a valid objective in designing rules for trading, the ultimate outcome must result in fully and credibly meeting clean water standards and this that ultimate outcome cannot be compromised by reason of cost.

#### 14. NWPPA Supports the Draft Water Quality Trading Framework

NWPPA supports the idea that the guidance document is a summary of the steps needed and the role Ecology will play but that the document primarily relies on existing EPA guidance.

EPA Guidance does not allow trading to address toxics. This means that trading will be limited to address conventional pollutants such temperature and nutrients that cause depressed levels of dissolved oxygen. As the Spokane Dissolved Oxygen TMDL (March 2010) nears implementation, trading will be a helpful option.

While this is a good start, NWPPA is concerned that Ecology will need a larger more comprehensive strategy to provide additional mechanisms to address issues of impaired waters in the future.

#### 15. Ecology Needs a More Comprehensive Strategy to Address Impaired Waters

Ecology needs to commence long-term planning to address the fact that the state will have more water bodies listed as impaired waters in the future, even where actual water quality remains the same or shows improvement. Additional listings of impaired waters will of course occur if water quality degrades below water quality standards. However, additional listings will also be driven by two factors: (1) Ecology will ultimately have more stringent water quality standards that incorporate higher fish consumption rates of native Americans; and (2) Analytical detection methods will continue to improve and many substances, toxic and conventional, will be measurable that are not measurable today.

With three decades of controls of point sources, most of the “new” water quality listings due to the two factors cited above will involve substances that are ubiquitous in the environment. These substances may either be naturally occurring or human-caused. Arsenic is an example of naturally occurring earth metal that is ubiquitous in Pacific Northwest surface and groundwater and is present in many locations at levels that exceed water quality standards. With new more stringent water quality standards likely to be adopted in the near future, most Washington waters will be many times over the arsenic criteria. A similar situation will exist for other naturally occurring earth metals. PCBs are an example of a man-made substance that has become ubiquitous in Pacific Northwest waters at very low levels but at levels below the detection limits of the most commonly used EPA approved methods. PCBs will become detectable virtually everywhere using the new methods EPA is in the process of approving. Mercury is an example of a substance that will likely exceed water quality standards in the future and is both a naturally occurring earth metal and is also present due to long-range air deposition from combustion sources such as coal-fired power production in China.

The point of these examples is that although the trading guidance is a good first step, Ecology needs a long-term strategic plan to deal with very different water quality issues of the future. Addressing the water quality issues of the future such as those cited above will be difficult given that feasible technology may not exist to remove extremely low levels of trace contaminants. TMDLs with a primary focus on point sources will yield diminishing returns.

Ecology should commence a comprehensive long-term strategic process to review and develop existing mechanisms under the federal and state clean water acts to address these issues. For example, Ecology should include the following mechanisms in a comprehensive long-term strategic plan:

1. Ecology should commence rulemaking to implement flexible implementation mechanisms allowed under the federal clean water act, for example:

- Use state discretion to reduce regulatory risk levels (now 10–6) where naturally occurring earth metals exceed this level.
- Articulate guidance *and commit to expeditious processing* of any Use Attainability Analysis or site-specific water quality standards revision petitions/applications that might be received. For example, EPA recently adopted new rules for the state of Florida that allow flexible site-specific standards. EPA announced in November 2010:

“EPA is also announcing a flexible approach for deriving federal site-specific alternative criteria (SSAC) based upon stakeholder submission of scientifically defensible recalculations of protective levels that meet the requirements of CWA section 303(c). This allows for case-by-case adjustments depending on local environmental factors while protecting water quality. Governments or other stakeholders can seek site-specific consideration in cases where water bodies have been extensively assessed by the State and local communities and effective measures are in place to reduce nutrient pollution. Existing or new Total Maximum Daily Load (TMDL) targets that differ from EPA’s final criteria can be submitted to EPA by Florida for consideration as new or revised WQS and will be reviewed under this SSAC process.”

[http://water.epa.gov/lawsregs/rulesregs/florida\\_index.cfm](http://water.epa.gov/lawsregs/rulesregs/florida_index.cfm)

2. Ecology should commence rulemaking to implement mechanisms currently authorized by the state legislature, for example:

- RCW 90.48.605 provides: The department shall amend the state water quality standards to authorize compliance schedules in excess of ten years for discharge permits issued under this chapter that implement allocations contained in a total maximum daily load under certain circumstances. Any such amendment must be submitted to the United States environmental protection agency under the clean water act. Compliance schedules for the permits may exceed ten years if the department determines that: (1) The permittee is meeting its requirements under the total maximum daily load as soon as possible; (2) The actions proposed in the compliance schedule are sufficient to achieve water quality standards as soon as possible; (3) A compliance schedule is appropriate; and (4) The permittee is not able to meet its waste load allocation solely by controlling and treating its own effluent.
- RCW 90.48.422(2) provides: “When a water quality standard cannot be reasonably met through the issuance of permits or regulatory orders issued under the authority of this chapter, the department may use voluntary, incentive-based methods including funding of water conservation projects, lease

and purchase of water rights, development of new storage projects, or habitat restoration projects in an attempt to meet water quality standards.”

16. In studying these trading programs we see a strong potential to achieve very positive changes. The first thing that jumps to mind is a need to provide both the buyers and the seller ability and flexibility to be creative and experimental in reducing the cost while increasing the ability to reduce loading. We suggest a policy from your shop of encouraging pilot scale innovation efforts to refine a trading program. We all can learn and see which ideas, if piloted, will work via a trading program and which fall short.

Let me give an example; Dairy producers work on the non point-side of the world; both permitted and non-permitted dairy farms are expected to have no discharges from their operations. That being said we see efforts in the Chesapeake to advance and encourage nitrogen and phosphorous reduction technology being driven by funding from point sources as a win-win-win scenario. Obviously there needs to be certification in the trades and verifiable reductions in the ecosystem loads of these nutrients. Yet, there is tremendous potential to save STP construction costs for small load removals when compared to bmp and technology adoption on farms.

17. The city of Yakima and the Yakima Basin Point Source Group support a more sustainable approach to TMDL implementation and trading that relies on green infrastructure (floodplains, riparian zones, wetlands, healthy forests, and carefully managed stream flow) replacing the need to over-invest in grey infrastructure (energy intense cooling towers, concrete structures, levies).

The loading capacity of the Yakima River related to dissolved oxygen, pH and temperature is limited by habitat and stream flow related parameters equally, if not more than it is by nutrient and temperature loading. In addition, the most severely impaired segments of the river have internal loads of nutrients unrelated to practices conducted over the last decade. The internal load is more a factor of ecosystem services loss than pollutant loading. So, a solution driven by the “typical” technology limited controls may not be effective at improving these water quality parameters.

18. On page 4, the document uses the heading “Defining the trading universe.” The cliché use of the word “universe” should be corrected to follow the agency’s “Plain Talk” guidance.

19. This guidance suggests that Ecology will oversee each step of market development and implementation even at the individual project level. The scale and complexity of the needed ecosystem services restoration and nonpoint reductions in the Yakima River are very large compared to the resources available at the state agency level. Markets should be developed that rely on local, readily available infrastructure and expertise to establish markets, design eligibility requirements, register trades, and validate credits.

### **“Ecosystem Services” and Pollutant Trading**

1. In the overview pages, could the Department recognize some of the above ancillary benefits of trading? Perhaps there could be a few sentences describing the multiple ecosystem services often resulting from water quality BMPs implemented by nonpoint sources. And perhaps there might be mention of the possibility that efforts to meet water quality standards could be integrated into other environmental protection efforts as well. As we know, point to non-point trading (unlike point-source infrastructure investments) can provide much more in environmental benefits than just reduction in a specific water quality pollutant. For example, the BMPs used can also provide aquifer recharge and relief from flooding (both of which have their own attendant water quality benefits). They can also provide wildlife habitat & migration corridors. They can sequester carbon. And they can provide ancillary water quality improvements for pollutants that may not be directly involved in a permit or in a TMDL (for example, a BMP targeting nitrogen can also reduce sediment or phosphorous or improve

groundwater, etc.). This is not to mention the considerable environmental advantages of keeping our rural lands rural – a desirable outcome that the trading discussed in this Draft Framework could greatly aid.

Certainly we realize that the Department’s charge in protecting water quality and in meeting the requirements of Federal and State clean water laws is a heavy one. And clearly, the Department must focus on that priority. But where there are possibilities for achieving substantial additional environmental and other social benefits as well, it also seems that we ought to consciously and expressly acknowledge them so that our policy product will be more likely to help make them happen where that is possible.

2. In the Yakima Basin there is growing interest in the Yakima Basin in the development of an Ecosystem Services Market that would create trading opportunities in a variety of “credits”, including temperature, salmon habitat and floodplains. The market which has been envisioned by the local Yakima Ecosystem Services (YES) group would involve local stakeholders throughout the basin, incorporate science effectively, and create incentives for restoration. The YES group has been actively collaborating with the Yakama Nation, the Department of Ecology and other local entities to apply for grants funds to begin work on a floodplain currency.

The Draft Water Quality Trading Framework presented by the Department of Ecology seems to set some reasonable ground rules for the development of a specific type of market (“pollution trading”). The framework outlines important definitions and guidelines for a market that is created with the goals described in the introductory letter (e.g. specific to the Spokane basin, and tied to implementation of a TMDL).

However, staff from the YBFWRB, and other members of the YES group are concerned that the proposed trading framework could impose undue limitations on the ability of other areas around the state (such as the Yakima Basin) to create locally-adapted market systems. For example efforts to use markets to address nutrient issues in the Yakima will need to create incentives to reduce inputs (as envisioned in these guidelines) along with incentive to increase the ecosystem’s buffering capacity (something not addressed in these guidelines). We envision working closely with the Department of Ecology as the Yakima Ecosystem Services Market proposal is developed, but note that not all aspects of this proposal will fit within the specific guidelines presented in this draft framework.

3. We appreciate the opportunity to comment on the "Draft Water Quality Trading Framework", recently released in September. As you know, water quality issues are of great concern in the Yakima Basin. Our organization prides itself on increasing local collaboration with many organizations and natural resource staff located here in the Yakima Basin, including on issues of water quality and quantity.

One of our most recent efforts has been to provide assistance in the formation of a collaborative group known as the Yakima Ecosystem Services (YES) Group (please see attachment for more information). This group is made up of several organizations and agencies within the Yakima Basin who are working proactively to explore and eventually create an ecosystem services market in the Yakima Basin that will address water quality as well as floodplain and salmon habitat. We strongly believe that a locally led effort, such as this one, will yield the necessary tools to effectively and sustainably improve water quality as well as open the door for other basins to develop similar, locally led efforts. We believe an Ecosystem Services Market will provide the incentives that will protect and increase cost-effective "green" infrastructure, such as floodplains and riparian habitat, instead of forcing the continued increase of costly and less effective "grey" infrastructure. We feel the continued use of concrete and steel solutions is unsustainable and does not adequately replace healthy ecosystem functions.

We are disappointed that the "Draft Water Quality Trading Framework" released by Ecology does not mention ecosystem services and does not encourage locally led efforts to create water quality trading goals. We feel that to meet our water needs, the role of the Ecology is important, but what is more important is the involvement and buy in of our local communities. For watershed level water quality goals to succeed, these efforts must be made with a

bottom up, not top down, approach. Ecology should be taking its lead from the local communities and not putting up barriers to local innovation. Without local involvement, we will be left with regulations that are not only unrealistic, they will result in the continued use of increasingly expensive and inadequately artificial solutions, while simultaneously allowing for the continued loss of our natural areas - the suppliers of ecosystem services. The draft, as it is currently written, will severely impede the collaborative efforts of the YES Group.

We also hope that Ecology will work with the local communities of the Yakima Basin on all TMDL development with complete transparency and inclusion.

Please reconsider the language in your document, and make sure it allows for, and strongly encourages:

- Local involvement and complete transparency in all water quality regulatory activities;
- Local innovation to create tools, such as environmental services markets, that give local landowners and stakeholders direct involvement in water quality improvements;
- Locally led communities' efforts to determine water quality goals and trading guidelines.

We strongly urge Ecology to redraft guidelines that include the above and encourages, not hinders, local knowledge and innovation.

### **Pollutants that may be Traded**

1. The draft framework document mentions that nutrients and oxygen-related pollutants may be deemed eligible. Many water bodies in Washington are “polluted” by excess temperature and fecal coliform bacteria. Does Ecology plan to allow trading to address temperature and fecal coliform problems?
2. Please clarify what pollutants will/may be eligible for the trading program.

### **Pre-TMDL Trading**

1. P. 2: There is very little in this Draft Framework that would be encouraging for communities potentially interested in pre-TMDL trading. Trading before the implementation of a TMDL represents a real opportunity to get early improvements, perhaps to actually achieve water quality standards without the need for a TMDL, and to get communities fully engaged in trading before it may be strictly required by law. Perhaps there might be more discussion of these possibilities and how they might work.

Instead, the discussion of pre-TMDL trading in the overview (P. 2) actually seems pretty negative – referring to “some limited circumstances” when a community might choose to be proactive. Surely there are more than a few rare occasions when proactive community efforts can be worthwhile. And near the bottom of page 2, the overview actually uses a double negative to apparently, but unnecessarily, emphasize the point that compliance with the process outlined in the Draft Framework is required (pre-TMDL) if a permittee is to later use its activities in complying with their legal requirements.

2. The draft framework document states that approved credits may expire “if they become actions required by a permit, by a TMDL load or wasteload allocation or TMDL implementation plan...” As noted in the cover letter and on pages 2 and 3, Ecology sees TMDLs as the main drivers for trading. Please clarify.

3. Page 3, “How trading works”: This section implies the trading program applies only to TMDLs. Suggest breaking down "how trading works" for each group that trading may apply (i.e. industrial permittees, TMDL stakeholders, etc.). For TMDLs where credit trading is allowed, please clarify whether stakeholders can choose to opt-out of the credit trading program. Suggest adding some text to clarify if the trading program will be completely voluntary.

## Trading Between Point and Nonpoint Sources

1. As explained throughout this process, the environmental groups are wary of nutrient trading between point and non-point sources, and therefore these comments focus on trades between those partners.

EPA and Ecology cannot point to another program in the Country that successfully reduced nutrients in a watershed based on a trading program between point and non-point sources. The uncertainty of using Best Management Practices (“BMPs”) as the focal point of reducing pollution, given the Spokane Watershed’s unique ecology, requires monitoring prior to determining compliance with NPDES permit limits. Therefore, Ecology should require at least two year’s worth of monitoring prior to the expiration of the dischargers compliance schedule to demonstrate the exact pollutant reduction.

A comprehensive, enforceable, and scientifically based plan for pollution elimination is the only mechanism that KEA, Spokane Riverkeeper and the Lands Council believes will lead to the clean up and protection of the Spokane River and Lake Spokane. In order for KEA, Spokane Riverkeeper and The Lands Council to agree to the Trading Program they need a clearly defined plan to ensure that BMPs and corresponding ratios are scientifically defensible and are implemented and ground-truthed to guarantee their use and effectiveness. They need to see clear requirements to ensure transparency, compliance, and enforcement. Finally, the environmental community needs to see a framework that does not merely reallocate pollution, but has an immediately actionable plan to reduce oxygen depleting pollution in the Spokane River.

2. The draft framework suggests that trading can reduce costs and provide a mechanism to reduce loads from non-point source (NPS), which are not regulated under NPDES. The framework should note that water quality trading can also:

- Achieve early pollutant reductions
- Act as incentive for voluntary reductions over and above what would otherwise be required
- Offset future discharge of pollutants
- Achieve greater environmental benefit, including habitat improvements
- Combine ecological services for multiple benefits, including habitat improvements

3. The Draft Framework seems, generally, to reflect a significant implied bias toward requiring permittees to achieve load allocations and water quality using on-site technological solutions, pretty much regardless of cost, unless the use of technology is plainly and entirely impossible. This seems surprising in that one might presumably not expect to see, from our Department of Ecology, a preference for complex technology over watershed restoration through BMPs.

The use of technological fixes for reducing pollution is, of course, at the heart of water quality law. And technology has, without doubt, taken us a good way down the road toward clean water. So perhaps there is a sense of confidence in technology born out of familiarity. But given the magnitude of the nonpoint issues we face, clearly future solutions must increasingly focus on reducing nonpoint source pollution. Water quality trading creates an opportunity to begin achieving meaningful nonpoint control and it would seem that we should welcome and make the most of this opportunity.

Perhaps, too, the Department lacks confidence in the effectiveness or the certainty of BMPs as a tool to achieve genuine, credible, and reliable reductions in pollution. Indeed, one of the advantages of giving trading a try is that doing so will quickly remove such doubts – one way or the other.

As for the effectiveness of trading, we at AFT are thoroughly convinced that properly designed, modeled, and implemented BMPs can be highly successful at eliminating pollution. There a great deal of research on most of these BMPs and some 60 years of experience with them upon which to draw in understanding their impact. So

we ought to be able to act with a good deal of prior knowledge about those impacts and confidence in the outcomes.

As for the certainty of pollution reductions, BMPs, also seem a much better bet. The use of credit pooling and the purchase of excess credits from a large number of landowner participants can easily guarantee that there will be no real possibility of even a minor lapse in credit production. Can one truly say the same for a single large technological infrastructure facility that depends on constant maintenance, reliable staffing, a steady (and substantial) supply of electricity, etc.? Even a brief failure of such a facility can result in a massive discharge to the waters of the state. We at AFT believe that watershed restoration is a much safer, more reliable, certain, and publicly responsible answer.

4. Point source controls have succeeded in great improvements in water quality over the past 30 years. But we now (perhaps thanks to these controls) face a different world than the one that existed in the 1970s. Nonpoint pollution (in which agriculture plays a substantial role) is the overwhelming contributor to today's water quality problems. Yet our success at regulating nonpoint is little better today than it was 40 years ago.

When the Department of Ecology submits its TMDLs for approval by USEPA, it must present plans that offer reasonable certainty, not just in the point source controls it will require, but also in the achievement of nonpoint source load allocations as well. Given our poor record of success with regulating nonpoint, and given our similarly poor record of success using traditional "cost share" "incentive" programs and relying on the typically uncertain funding they offer, one must ask: How can either the Department of Ecology or USEPA truly and honestly argue or conclude, with any reasonable certainty, that those promised nonpoint load allocations will actually be achieved? What earthly sense does it make to present a plan that might offer near absolute certainty in point source controls, but almost none for nonpoint?

As discussed above, trading can result in pollution reductions in excess of those needed to reach the actual load allocation in a watershed – point and nonpoint. And it can make that happen much sooner than might otherwise be possible. It also offers considerably greater prospects of success than traditional nonpoint programs. Unlike traditional "cost share" programs, trading pays (above baseline) for the full cost and value of the BMPs farmers will implement – assuring that a likely large majority of them will take an interest and want to participate. This is quite different from relying on the small minority of landowners who typically participate in "cost share" programs which require the landowner to pay a significant portion of the cost themselves. Moreover, because trading typically saves the NPDES permittee substantial expense, we know the funding will actually and readily be available. This is quite unlike the dependence on uncertain public appropriations required for publicly-funded "incentive" programs.

Moreover, we are to be reasonably certain our nonpoint strategies will be successful, we need also to have confidence that our communities now and in future will support them. If, for example, our strategy relies upon future nonpoint regulations, we need to account for the likely resistance that approach may engender both to the rules themselves and to the funding needed to enforce them. Trading, on the other hand, is popular. It actually saves the community money. It can produce a multitude of benefits beyond just the pollution reductions it will provide. It does not require the adoption of new rules – the authority is already in place - but even if new rules were needed, one could count on community and political support. For nonpoint pollution, trading, like incentives, also offers one very large advantage over regulations in that it can enlist landowners in making affirmative improvements on their properties rather than simply preventing them from causing harm.

Given our history of failure with addressing nonpoint using our current tools (regulatory and cost-share incentives), and given the promise offered by trading, it would seem we should be actively seeking out new opportunities to use it, not closing them off. If that is one of the purposes for this new Draft Framework, it would be useful if it could mention some of these advantages. That additional understanding might be useful for communities which, in future, might consider using it.

5. “Trading can provide a fund source for nonpoint pollution controls in addition to the currently available fund sources”: Pg2 para 2

This may be better stated as:

Costs of environmental compliance are inevitable and necessary. Trading can allow smarter distributions of these costs and be a source of incentive for a greater environmental gain. The City of Yakima Wastewater Division has made and is planning to make large investments in sustainable practices at its facilities. This includes:

- New sewer collection lines that allow lower consumption of electricity at lift stations.
- Installation of a grease receiving station, anaerobic industrial waste treatment system and biogas fired biosolids dryer that will optimize the use of on-site generated energy and reduce our carbon footprint on and off-site.
- Installation of aeration basin mixers that will reduce our phosphorus discharge up to 80%.
- Use of a struvite recovery process that will reduce our phosphorus and nitrogen loading in recycle streams, and thereby, reduce energy consumptions and effluent phosphorus.
- Large scale floodplain and side channel restoration at the Yakima Regional Wastewater Facility site in the Yakima River.

6. I believe that water quality trading may be the best solution to some of the most pressing water quality problems in Washington. A quick scan of the Department’s 303(d) list data indicates that most watersheds in the state have issues with nutrient enrichment, low dissolved oxygen, or high temperature that are symptomatic of nonpoint source pollution. Most nonpoint pollution originates on farm fields, residential lots, and in road runoff, sources that are for the most part unregulated and, except in particularly egregious cases, unregulateable. Attempts to address these problems through landowner incentives and stormwater utility fees have been chronically under-funded. And so, over time, the list of nonpoint-impaired water bodies continues to grow.

At the same time, efforts to remedy nutrient and temperature pollution by ratcheting down on point-source polluters have led us down a path of far higher costs and diminishing incremental returns. Addressing nutrient, DO, and temperature problems exclusively through technological fixes seems to be leading us to some “no expense spared” solutions like widespread tertiary treatment for wastewater, which could double or triple wastewater costs.

Our studies of water quality trading programs elsewhere in the United States (performed on contract to USDA and the Washington State Conservation Commission) indicate that best management practices on farms and other rural and suburban property are a proven, dependable option for controlling nonpoint source pollution at its source. In addition, economic analyses indicate that costs for nonpoint source control of nutrients and temperature can be far lower than for equivalent control through point-source treatment options. This suggests that point/nonpoint trading has tremendous potential in the many areas of Washington State that suffer nutrient, dissolved oxygen, and temperature problems.

Given this promise, I’d like to see an open-door policy at the Department of Ecology for new proposals for water quality trading, including development of new regional trading programs.

### **Meeting Load Allocations**

1. Third bullet, first section, page 3: philosophically, the requirement to meet the nonpoint source load allocations before any point source credit can be achieved creates uncertainty for participants and would be a disincentive for point sources doing anything in the nonpoint arena. Specific projects, funding sources and responsible parties for meeting the TMDL tributary reductions must be identified.

2. Your framework states “Nonpoint pollution sources receive a load allocation, which establishes a baseline that must be met before non-point credits that may be traded accrue” (Page 3). We support this notion because it mandates TMDL compliance in advance of trading. Further it ensures that all non-point sources are doing their obligatory reductions prior to some additional BMP project that could be used for a credit.

3. In the third bullet under “How Trading Works”, requiring that a baseline of non-point source control be achieved before any credits can accrue for a trade is a significant barrier to funding on non-point source pollution. Unless Ecology funds the non-point source control program necessary to accomplish the baseline reductions, it is not apparent how these non-point sources will be remedied. It would provide a tremendous incentive for parties seeking a trade to fund non-point source pollution, if they could get a credit from the beginning. This is going to be an especially challenging issue in the tributaries of the Spokane River, in which very ambitious baselines for non-point source control have been identified in the Spokane River DO TMDL. We would encourage Ecology to examine this part of the policy carefully to determine if there is a more effective way to implement the DO TMDL in this watershed.

4. The third bullet under “How trading works” states that “nonpoint pollution sources receive a load allocation, which establishes the baseline that must be met before nonpoint credits that may be traded accrue.” We assume Ecology included this statement to implement another provision of the Draft Framework, the notion that credits cannot be given for actions that are already required by a TMDL load allocation (p. 8).

However, we think this statement fails to make an important distinction between load allocations and waste load allocations. Waste load allocations apply to specific sources, such as a single discharger. On the other hand, at least in the DO TMDL, load allocations apply to entire water bodies, such as rivers or creeks. This means that load allocations do not apply to particular nonpoint pollution sources. For example, the DO TMDL assigns load allocations to the Spokane River tributaries. While there may be several discrete nonpoint sources on each tributary, the DO TMDL obligation to decrease discharge does not require action by any specific nonpoint source. Instead, the pollutant reduction required by the load allocation is to come from the tributary as a whole.

This is important, because it means that individual nonpoint sources are under no obligation to reduce their discharge. Those individual nonpoint sources should therefore be able to generate credits for trade, even before the tributary’s overall load allocation is met. We believe the statement made in the third bullet—that load allocations must always be met before nonpoint credits can accrue—should be revised accordingly; otherwise it is not likely significant improvements will ever occur in the tributaries.

We understand there may be a concern about potential double-counting of pollutant reductions within a tributary—that is, a concern that the reductions associated with the trade must occur in addition to the reductions required under the load allocation. However, we believe that the credit accounting system described in the Draft Framework will ensure that no double-counting occurs.

5. Non-point Source Entities Must Achieve a Baseline of Compliance before being Eligible to Trade. In keeping with the requirements in the DO TMDL, and what the parties all understood the process to include, we reiterate that the Trading Program must require non-point sources to meet a baseline threshold of reductions before they can trade credits. The tributaries all have minimum reductions that must be met prior to allowing dischargers to trade with entities on those waterbodies. That practice must be upheld to encourage the implementation of conservation practices and allow flexibility in order to ensure that a variety of agricultural producers are eligible for trading.

Recommendation: The DO TMDL model is based on reductions from all sources, especially the tributaries, and a discharger should not be allowed to discharge excess pollution until the tributary has met the reduction

requirement. If a net reduction of oxygen depleting pollutants in Lake Spokane is the goal, the tributaries must meet their reduction requirements before they are eligible to enter the trading market.

6. Nonpoint Baselines—We are supportive of the two possible strategies articulated at the September 22<sup>nd</sup> meeting to address the requirement that “Nonpoint pollution sources receive a load allocation, which establishes the baseline that must be met before nonpoint credits that may be traded accrue,” being (1) some BMP or other requirement for seller eligibility or (2) some percentage of credit sales going toward the nonpoint load. We advocate for whichever encourages the most nonpoint participation; possibly a hybrid such that good stewards that have already implemented baseline BMPs do not need to have a percentage of credit sales subtracted.

7. P. 3: The third bullet in this section seems to say that an entire non-point source watershed or community must meet its collective nonpoint load allocation before any trading can be credited. If this is the intent, it is a major and highly counterproductive barrier to any possibility of trading. As is mentioned above, it seems unlikely that most of these communities will in fact ever succeed in achieving their nonpoint load allocation using current traditional tools (see the discussion of reasonable certainty, above). And even if they do, it seems likely that it will take a good long time to get there – during which time water quality standards are not being met and trading will not be possible. This highly punitive provision will simply prevent trading from becoming available to those landowners in such a watershed who are actually able to help and who might be willing to do so if allowed to trade their excess performance with interested permittees.

Why would one refuse to allow the sale of and credit for water quality benefits generated by an individual farm landowner in a watershed to the extent that those benefits are clearly above that landowner’s share of the collective community responsibility? Wouldn’t it be better to simply assign an appropriate share of the full nonpoint community’s allocation to each participating individual landowner seeking to sell credits? One could consider their share of the total acres, the nature and proximity of their land, the type of agriculture, or other factors that might reflect that landowner’s share of the full community allocation. This would then be treated as that landowner’s individual baseline above which trading would be allowed. Or, one might simply establish a baseline of practices that would meet the allocation if all those in the nonpoint community used them. Then allow any individual landowner who implements those practices and then exceeds them to sell the excess.

8. I’d suggest a reconsideration of the requirement that nonpoint sources meet their entire load allocation before being eligible to trade. While I understand the logic of this position, it seems very unlikely that farmers and other rural and suburban landowners will initiate practices voluntarily and on their own dime that will get them up to the baseline simply because they will have access to market income above the line. If we really want to incentivize early progress on water quality improvements, we have to figure out a way to give underperforming players access to the market.

One option that may make sense is to provide public incentive money for work up to the baseline and access to market income above the baseline, but do so under a single contract with the credit producer. Another option is to deliberately set the initial baseline low to encourage immediate action, then ratchet it up over time to the load allocation or even higher. Existing trading markets operating with low baselines (notable the Greater Miami program) indicate that the Department has more latitude in setting baselines than may appear.

## **Definitions**

1. There continues to be confusion over the terms “trade,” “offset,” and “credit” as used in the Draft Framework. The terms apparently refer to three distinct concepts. As we understand it, a “credit” is a unit of pollution that can be “traded” for use as an “offset.” If our understanding is correct, the definitions of “offset” and “trading” do not make the differences between them clear. We suggest that Ecology revise the draft definitions to read as follows:

Offset: A reduction in pollutant discharge from a source, measured in credits, that is used to balance or compensate for pollutant discharges from a different source. Examples include water conservation, using

phosphorus-free fertilizers, or reducing other pollutants with a similar impact on water quality. This term was included in the concept of “delta management” used in the TMDL.

Trading: The exchange of credits for use as offsets. Trading can be done pursuant to agreements with either point source or non-point source dischargers requiring reductions in pollutant discharges. This term was included in the concept of “delta management” used in the TMDL.

2. Please clarify the difference between "earned credits" and "surplus credits." If they are the same, suggest using the same terminology for clarity.

### **Ratios and managing uncertainty**

1. Fourth bullet, second section, page 3: This bullet seems to imply that only point source buyers must adjust credits by some ratio. But later in the document there is discussion of trades between nonpoint sources. Wouldn't a trading ratio also apply to nonpoint to nonpoint, or point to nonpoint trades?

2. In the third bullet under “Elements of a credible water quality trading program”, it says “Include methods of managing uncertainty...” We agree that a reasonable margin of safety should be included in the determination of credits in a trading program to account for uncertainty. However, we are concerned that Ecology will include a margin of safety on each and every variable or assumption used in the determination of the credits. By doing that, the cumulative effect is to create a compounding of safety factors, and the result is an overly conservative estimate of the credit that should accrue. This comment applies to various references in the paper where trading ratios, locational ratios, pollutant transport, temporal variability, pollutant equivalency, and other computational factors are discussed.

3. The methods for managing uncertainty will presumably need to include the trading ratio, monitoring results, modeling results, and BMP efficiency estimates. This is a complex suite of tools, and we think it will be important not to incorporate unnecessary conservatism into the use of these tools. For example, Ecology should not discount trading ratios excessively based on concerns about uncertainty, especially since monitoring will show whether expected reductions actually occur. If actual reductions are higher or lower than expected, Ecology can adjust the credits to reflect what really happened. But there may be little interest in participating in the trading program in the first place if credits are set unreasonably low to account for uncertainty.

4. The fifth bullet under “Establishing trading ratios” states that one of the factors to consider when establishing a trading ratio is “Risk—likelihood of BMP failing or of implementer renegeing.” We disagree that the likelihood of a BMP failing or of an implementer renegeing should be considered when establishing trading ratios. Doing so could unfairly deprive buyers and sellers of the full value of a trade based on only a possibility that the pollutant reduction will not occur. Besides, the Draft Framework includes other safeguards to ensure that credits cannot be earned if the predicted pollutant reductions do not occur. For example, under the heading “Credit expiration/retirement” on page 8, the Draft Framework states that approved credits will expire “If the BMPs by which the credits are accrued are shown to be ineffective or less effective than originally expected.”

The last sentence states that “Retiring credits—a certain proportion may be retired, which means that those improvements must remain in place forever.” We do not understand this concept. Please explain what it means to “retire” a credit; and example or two would be helpful.

5. Managing risk and uncertainty--Eligibility criteria can be used to keep out high uncertainty projects. Questions like “Will it work? Will it work at this location?” (currently categorized as a factor of trading ratios) might be better addressed as eligibility criteria.

Recent studies suggest using tools such as contracts and insurance to transfer liability for project performance (not permit liability) from permittee to credit seller whenever possible. Permittees are willing to pay a higher price for

increased certainty and restoration organizations have more capacity to see that additional projects get done to make up for project failure. Acts of God can be accounted for with a reserve pool of credits so that buyers need only to insure themselves against human caused project failure. This reserve pool can be built through trading ratios applied to each trade.

In order to be predictable, trading ratios should be either applied equally to all trades or be based on pre-defined criteria.

6. P. 5: Perhaps it might be useful to mention in this section something concerning the potential for credits to be pooled and aggregated. This is an important tool for assuring the absolute certainty of credit production. Mentioning it would help communities anticipate the potential for its approval as a means to create the needed certainty. Pooling could be a factor in reducing an otherwise onerous trading ratio.

### **Avista**

We believe the trading program should be open to any entity with a legal obligation to improve water quality, including entities with obligations based on a TMDL. As you know, Avista has been actively involved in Ecology's development of the Dissolved Oxygen Total Maximum Daily Load for the Spokane River and Lake Spokane (DO TMDL). Avista's responsibility for improving DO in Lake Spokane is set out in Table 7 of the DO TMDL. However, since it does not discharge and DO-depleting pollutants, Avista has limited options for fulfilling its responsibility. Its preference, and that of Ecology, is to reduce nonpoint sources of nutrients to the lake (DO TMDL at p. 46 and C-9). To accomplish this, as well as to reduce other potential nutrient sources to the lake, Avista should have access to the same trading opportunities that will be available under the Draft Framework.

As currently drafted, however, it is not clear whether Avista would be allowed to conduct trades under the Draft Framework because the document appears to be written only with dischargers in mind. For example, under the heading "How trading works," the Draft Framework, (p. 3) states that :

Point sources can meet their wasteload allocation (WLA) by:

1. Meeting the permit limit based on the WLA through on-site actions, (for example, by reducing the quantity or improving the quality of the discharge).
2. Earning "credits" by implementing pre-approved nonpoint source pollution control measures, or
3. Buying "credits" from other sources that have reduced pollutants below their own allocation.

Within this context, there is no similar statement that an entity with a water quality improvement obligation—but no point source discharge—can earn or buy credits. Similarly, the Draft Framework suggests that only a point source discharger may propose alternative trades: "A discharger proposing a trade not on the approved eligible trade list (determined by Ecology) is responsible for showing that it will actually offset a portion of the discharger's water quality-based effluent limit and meet all other trading requirements listed in the Introduction section" (p. 5). The section of the Draft Framework that discussed implementation of trades seems to assume that a point source will always be involved (p. 7). Avista encourages Ecology to revise the Draft Framework to make clear that it applies not only to point source dischargers, but to any entity with a legal obligation to improve water quality.

### **Idaho-Washington Trading Consistency**

One of the stated EPA, DOE, DEQ directors' goals was to facilitate inter-state trading. The draft framework does not address that goal. How is WDOE going to integrate into a bi-state program with IDEQ?

## **BMPs eligible to generate credit**

1. What are the potential BMPs, projects, and sources of credits to which this program would apply?
2. The third bullet under “What is a credit?” states that a credit is “Generated by a nonpoint source from the installation of best management practices beyond those required to meet the most stringent load allocation applicable to the nonpoint source.” We believe this statement is unnecessarily narrow. The reference to “installation of best management practices” may imply that credit can be earned only if a structural change is made is a pollutant-generating activity. However, actions other than structural changes can reduce pollution. For example, land currently used for farming could be taken out of production entirely. This would not involve “installation” of any best management practices, but would result in fewer nutrients being discharged to nearby water bodies. We believe any action that reduces pollutant discharge should be eligible to generate credits under the trading program, even if it does not require “installation” of best management practices, and the Draft Framework should clearly state this.
3. The introductory sentence under “Determining eligible trades” states that “Ecology, with input from interested parties, will determine what types of trades will be eligible for each specific pollutant/watershed water quality trading program.” How will Ecology’s determination be communicated—through an order or some other final decision document? Will interested parties have an opportunity to dispute the determination?
4. what creates a trade-able credit either for a permitted source or other sources that want to reduce nutrient loads to create a trade-able credit...is it only reductions above the best control technology that can be achieved?
5. Eligible practices and trades—Aware that an ongoing study is identifying sources of nonpoint phosphorus reduction, we hope that eligible practices are tied to holistic ecosystem recovery goals. Many stakeholders may have suggestions about what these goals are and what kinds of actions they can do to help achieve them.

Given that watershed recovery goals are often defined locally, we hope that local stakeholders in other emerging markets will be able to articulate eligible actions for trades in their watershed in cooperation with state and local DoE staff. For example, restoring in-stream flow can improve dissolved oxygen, temperature, and other beneficial uses. Riparian forests also provide a range of benefits to water quality and other beneficial uses.

6. The document states: “Ecology, with input from interested parties, will determine what types of trades will be eligible for each specific water quality trading program.” Developing a water quality trading program could entail substantial time and cost. Therefore, specific criteria should be available as soon as possible so proponent don’t spend time and effort on trades that Ecology is likely to deem unacceptable.
7. Page 3, "How Trading Works," 4th bullet: Suggest adding clarification and/or include examples, of what "pre-approved nonpoint source control measures" may consist of. Please clarify if NPDES Municipal permittees could earn credits for implementing pollution prevention measures contained in NPDES Municipal Permits (e.g. Illicit Discharge Detection and Elimination, maintenance activities, etc.). Please clarify if credits could be earned for construction of stormwater stand-alone retrofits and BMP installation during new construction if in a TMDL area.
8. Ecology doesn't have approved BMPs for some pollutants, such as fecal coliform. Please describe how trading will be implemented for these types of pollutants.
9. Please clarify whether the eligible BMPs will only be allowed for use by nonpoint sources, as stated in the title, or if point source dischargers will be able to use the eligible BMPs too. If point sources will be able to use the BMPs as well, suggest removing "nonpoint" from the section heading.

10. In identifying a specific, prioritized set of BMPs that will be used for trading, it would be useful if the Draft Framework were to include a process to take input on and ground-truth those BMPs with the farmers in that watershed. It will be pointless if we end up with BMPs that simply don't work for local farmers or that have drawbacks that aren't addressed – like the need for continual maintenance, for example.

11. In the first sentence after the sub-heading “Determining eligible trades” it begins “Ecology, with input from interested parties, will determine . . .” We believe that this should rather be stated as, “Interested parties, with input from Ecology, will determine what types of trades will be eligible . . .” It is more likely that locally developed and supported trading criteria will be successful than criteria developed by a state agency.

Regarding determination of eligible trades, it is important that local needs for water quality and ecosystem restoration drive the eligibility for trading. Although general concepts of water quality protection apply statewide, the diversity of water types in Washington is as varied as the climatic and ecological conditions throughout the state. These needs vary greatly even across a single watershed such as the Yakima. In addition, land uses vary considerably across the state, so a one size fits all approach to BMP prescriptions in a marketing guidance will not yield a useable marketplace. Local participation to determine market eligibility is a critical foundation of water quality markets.

Eligibility should also include consideration of watershed recovery goals. In Yakima, a major watershed recovery goal is floodplain restoration and flow restoration. Both of these goals substantially improve water quality and support salmonid restoration efforts without directly lowering pollutant loading.

We advocate for guidance that increases the highest probability for nonpoint source reductions and ecosystem restoration. With the very high loading of pollutants from nonpoint sources in the Yakima River Watershed and the great potential for restoring functioning floodplains, a marketplace that incentivizes the greatest pollutant reduction and ecosystem services restoration will be the most effective at restoring water quality.

12. The paragraph under “Identifying eligible BMPs for nonpoint trades” provides no relative information to develop BMPs or specific expectations for the BMPs to meet. It should be deleted, and BMPs that reduce the necessary amount of pollution to create credits should be developed by locally emerging marketplace needs.

### **Calculating Pollutant Reductions and Credits**

1. The fifth bullet under “What is a credit?” states that “Nonpoint source credits and trading ratios must be measured or calculated from the same baseline used in the TMDL and must be consistent with the assumptions used to develop the load allocation.” We fully appreciate the importance of establishing a sensible baseline, but this statement is not clear to us. Please explain what it means for source credits and trading ratios to be measured or calculated from the same baseline used in the TMDL, and what it means for those credits and ratios to be consistent with the assumptions used to develop the load allocation.

2. One component of Ecology's Margin of Safety for the DO TMDL was establishing the baseline using 2001 conditions, which represented a low-flow, high temperature year (i.e., the 7Q10). Nonpoint source credits and trading ratios used to meet waste load allocations and other responsibilities under the DO TMDL will therefore be measured or calculated from 2001 conditions. Since it's likely that the assumptions used to develop the load allocation will change over time as new data become available, how will real-time data be meshed with the 2001 load assumptions? In other words, how will Ecology measure compliance with two separate data sources, one being real-time BMP effectiveness monitoring results and the other being the 2001 loading assumptions?

3. The draft framework states that “Nonpoint source credits and trading ratios must be measured or calculated from the same baseline used in the TMDL and must be consistent with the assumptions used to develop the load allocation.” Many TMDLs are based on limited data; however, if additional information becomes available after

the TMDL has been established, Ecology should allow the new data to be used to develop and implement water quality trades.

4. The first bullet under “Elements of a credible water quality trading program” states that a credible water quality trading program “Must define a common unit of credit, such as pounds of phosphorus per day.” It may be appropriate to introduce other common units of credit for definition, such as pounds of other nutrients or pounds of dissolved oxygen.

5. The first sentence under “Quantifying/estimating pollutant reductions” states that “A standard methodology must be used to estimate the amount of pollution reduction expected from the implementation of eligible BMPs.” In view of the fact that there are literally dozens of methodologies that might be considered “standard,” how and by whom will the “standard methodology” be selected or developed? It is also important to note that all methodologies do not work in all situations. For example, the CE-QUAL model provides a very precise and robust methodology for assessing the Lake Spokane, but cannot assess reductions at a given source miles up the tributaries. Will more than one methodology be available for use, given that the Trading Framework is for the entire State, which includes water bodies with myriad water quality concerns?

6. The second sentence under “Quantifying/estimating pollutant reductions” states that “Monitoring must measure actual reductions periodically and adjust, if necessary, the estimated reductions.” This could be read to say that monitoring will adjust reductions, but in fact Ecology will need to adjust reductions based on the monitoring results. We suggest this sentence be rewritten so it reads “Periodic monitoring must measure actual reductions, and the monitoring results will be used to adjust, if necessary, the estimated reductions.”

7. The draft framework states that a “Standard methodology must be used to estimate the amount of pollution reduction expected from the implementation of eligible BMPs.” What does Ecology consider to be a standard methodology?

8. Page 5, "Quantifying/estimating pollutant reductions," 2nd sentence: "Monitoring must measure actual reductions periodically and adjust, if necessary, the estimated reductions." As written, it is unclear who will perform this monitoring and for how long. Suggest specifying who will be monitoring to measure actual reductions (i.e. Ecology, the stakeholder trying to earn credits, or the credit buyer).

9. This section doesn't convey a lot of detail about how the Department of Ecology will go about estimating pollution reductions. If we are to assure public confidence in the use of trading while taking advantage of its legitimate potential, perhaps it might be useful to include a process for making sure the “standard methodology” referenced is peer reviewed as well as accepted by the regulatory agency.

10. On page 3, under, “What is a credit?” the first bullet, “A unit of pollutant reduction is usually measured in pollutant quantity (pounds) per unit of time at a point of compliance.”

Suggested language: “A unit of pollutant reduction that can be measured in pollutant quantity per unit of time within a defined area such as a watershed, reach, bay, lake etc...”

On the last bullet of the same section “Nonpoint source credits and trading ratios must be measured or calculated from the same baseline used in the TMDL and must be consistent with the assumptions used to develop the load allocation.”

The adoption of guidance as stated in the above bullet point, would not take into consideration that in some watersheds, restored ecosystem services can increase the loading capacity of a river, and this would change the assumptions used to develop the load allocations.

11. The “Project scoping—proposal and consultation” provides Ecology overview of developing markets without guidance for supporting markets. Cooperation with scientific studies that consider innovative market development efforts is needed.

Ecology is ultimately responsible for setting Clean Water Act related goals such as TMDLs. The guidance document indicates that Ecology will determine the crediting protocols and offset limits as well. This should be accomplished by local market development and be a determination based on the most benefit to water quality for the least cost. All viewpoints and opinions pertaining to crediting protocols and market valuations are relevant in a local marketplace. Ecology should maintain approval authority of markets, but not be responsible for resourcing the development of them.

### **Cross-pollutant trading**

1. Fifth bullet, third section, page 3: What is meant by “out of kind” trading?
2. In the fifth bullet under “EPA Guidance”, it says “No out-of-kind trading.” This is ambiguous and should be clarified in the paper.
3. The DO TMDL loading capacity consists of the combination of three nutrients phosphorus, CBOD, ammonia that impact meeting the dissolved oxygen water quality standard. All three parameters have a degree of equivalency, and it is possible for a point or a non-point source to be higher in one or two of the three, if balanced by a decrease in the other one or two parameters. This concept is important in NPDES permitting and in the Delta Elimination Plan credits. To the extent that equivalency between parameters can be determined, permitting should allow for consideration of this relationship in meeting the final waste load allocations.

Attached is example of how Ecology has used the concept of pollutant equivalency by equating CBOD5 and Ammonia in the City of Everett's NPDES permit. The Snohomish River has a TMDL for BOD and Ammonia (because of a modeled dissolved oxygen concern). Since both the CBOD5 and the ammonia affect dissolved oxygen, the permit provided a mass limit for equivalent carbonaceous biochemical oxygen demand (5-day). Compliance with the mass load limit is determined by adding the CBOD5 in lbs/day to 2.1 times the Ammonia in lbs/day, where both the CBOD5 and the total ammonia are measured from the same daily composite sample (see page 9 of the permit for the Equivalent Carbonaceous Biochemical Oxygen Demand limit, and see footnote "e" on page 10 that explains how that limit works).

IEP requests that the concept of pollutant equivalency be considered as a permit modification for meeting permit waste load allocations. Pollutant equivalency should also be considered as a mechanism for reduction of non-point sources by relating potential sources of CBOD and ammonia to phosphorus.

4. In the seventh bullet under “Determining eligible trades”, it says “Trading one for of a pollutant for another form, such as total phosphorus for a soluble...”. This appears to be a reference to the current study of biologically available phosphorus compared to total phosphorus in advanced wastewater effluent. We disagree that the trading program should also cover future knowledge gained regarding the responsiveness of water quality to the way that a pollutant is measured. If we learn that dissolved oxygen in the Spokane River is influenced by biologically available phosphorus, not total phosphorus, this information should be the basis for a revision to a NPDES permit, not require a credit and trade.
5. We are skeptical about the prospects of trading one pollutant for a different pollutant. The Draft Trading Framework page five title “Defining the trading universe” subheading “Determining eligible trades” proposes trading one oxygen related pollutant for another. We believe that trading one nutrient for another is unequal and will not alleviate the amount of Dissolved Oxygen in the water. The EPA has also provided guidance documents that point out that each pollutant affects every water body differently

([http://www.epa.gov/npdes/pubs/wqtradingtoolkit\\_app\\_a\\_case\\_studies.pdf](http://www.epa.gov/npdes/pubs/wqtradingtoolkit_app_a_case_studies.pdf) See A-40). We want to see verifiable science supporting the decision to allow trading between pollutants in the Spokane River. This science must reflect Spokane River specific tests to establish these trading ratios. We need to see results that demonstrate a reduction of Dissolved Oxygen in Lake Spokane, prior to the expiration of the discharger's compliance schedule to ensure that when the trades occur the discharger is in compliance with its NPDES Permit.

Recommendation: We recommend against developing a nutrient trading program that allows trading one oxygen related pollutant for another. The uncertainty in establishing exact ratios is a waste of resources at this time, when the parties are still trying to determine whether trades of the same pollutant will reduce phosphorus in the watershed. The parties may revisit this issue as the Trading Program is developed, but Ecology should require dischargers to focus on trades between like pollutants.

6. "Determining Eligible Trades... Trading a pollutant for a water quality enhancement, such as increasing dissolved oxygen as a trade for reducing phosphorus." The Department is very concerned about this as an eligible trade and strongly opposes the example as an eligible trade. During and after the DO TMDL development the Tribe and EPA conducting modeling on the Lower Arm of the Spokane River with this scenario. The scenario set the discharged water of Long Lake at 8mg/l of dissolved oxygen and ran it through the model. Unfortunately, it became known that even with the increased oxygen the Tribe's waters continued to suffer from low oxygen because the water still contained high levels of TP and other pollutants. The input of DO only increased water quality for a limited stretch of the River and then the benefit dissipated. The Department does not oppose the general idea of this type of trade, but it concerns us that this was the example used.

### **Wasteload Allocations (Technology v. Water-Quality Based)**

1. In the third bullet under "EPA Guidance", it says "No trading to meet technology-based limits." This is ambiguous, and should be clarified in the paper. For example, one of the reasons for trading is that it is more cost effective to trade than to spend an inordinate amount of money to implement technology to meet very stringent water quality requirements, as referenced in the second paragraph on Page 1.

2. In the first bullet under "Ecology issues NPDES permit", it says "NPDES permit requires use of best technology dischargers can achieve." This statement is ambiguous, and is contradictory with the statement on page one, where it appropriately says "Pollution trading can provide advantages in addition to reduced costs for water quality improvements." One of the goals of the trading program is to determine the appropriate balance between implementation of treatment technology versus implementation of other actions to improve water quality in the watershed. It may be that "...use of the best technology dischargers can achieve" is prohibitively expensive, and a poor use of our rate payers' investment. In some cases it may be a more effective use of financial resources to reduce non-point source pollution instead of installing technology that has a marginal reduction of the pollutant load. We recommend that this statement be clarified to include a reference to cost effective technology, not just "best".

3. The first and second bullets under "Ecology issues the NPDES permits" use the phrase "best technology" when describing dischargers' obligation to treat their wastewater before discharge. The first sentence below the bullet uses a similar phrase, "best effluent technology." Under Washington law, dischargers are not required to use "best technology" or "best effluent technology." Instead, they are required to apply all known, available, and reasonable methods of treatment (AKART) to their wastewater. Ecology should replace the phrase "best technology" each time it appears with "AKART."

4. when is a permitted source eligible to buy a credit to fulfill a NPDES permit, the term at the end of the document says after the "best control technology that can be achieved"...this is a new term for me and not sure what it means... in my mind there is a reasonableness test here that sets a line... and the trade occurs across the line...

5. P. 7: This section states that the NPDES permit can only allow trading above the “best technology dischargers can achieve.” We appreciate that the State of Washington must require use of that level of technology that is required under federal law. The hope is, however, that the standard suggested does not require greater use of costly and uncertain technology than is already required under the Federal Clean Water Act when less costly and more certain and effective trading regimes might be readily available.

### **Possibility of a Bubble Allocation for Point Sources**

1. In 1989, the Spokane River Phosphorus Management Plan was adopted as a bi-state (Washington and Idaho) effort to reduce phosphorus contributions to the Spokane River. This plan set total phosphorus limits for each point source discharger to the Spokane River in both Washington and Idaho. IEP and Kaiser continue to operate under the “Spokane River Phosphorus Management Plan” also known as a “bubble” for aggregated discharge of total phosphorus.

Under the current plan, two industrial dischargers, IEP and Kaiser are given a monthly average aggregate limit (industrial bubble limit) and a specific individual limit. Under this scenario, one discharger would not have a permit violation of their individual limit as long as the industrial bubble limit is met. Specific language regarding this compliance plan from IEP’s current permit is provided below:

#### Spokane River Phosphorus Management Plan

- The daily average aggregate discharge for total phosphorus (as P) shall not exceed 16.5 kg/day (36.4 lbs/day) during the time period from June 1 to October 31 for Inland Empire Paper Company and Kaiser Aluminum & Chemical Corporation, Trentwood Works.
- The daily average discharge for total phosphorus (as P) shall not exceed 11.2 kg/day (24.7 lbs/day) during the time period from June 1 to October 31 for Inland Empire Paper Company.
- The Permittee will not be considered in violation of the daily average discharge limit contained in condition S1.A.3.b. unless the daily average aggregate discharge limit contained in condition S1.A.3.a is also exceeded for the same reporting period.

Innovative approaches such as the Spokane River Phosphorus Management Plan will be necessary for the success of the DO TMDL. IEP encourages Ecology to incorporate such measures into the Delta Elimination Plan. For DO TMDL compliance, IEP suggests extending the “bubble” concept to municipal NPDES permit holders, including Idaho, and broadening the scope to include the other regulated parameters CBOD and ammonia.

2. With respect to “point source bubbles” between multiple point sources related to multiple entities, the establishment of a bubble should also not be subject to the process that is outlined in the draft trading framework. While some of the same demonstrations that are a part of the draft trading framework may be required, the establishment of a bubble and the appropriate compliance demonstrations should remain a part of the discharge permit renewal processes for the participating entity’s discharge permits. This would be consistent with the development of the existing Kaiser Aluminum/Inland Empire Paper bubble that exists in the 1997 issued discharge permits.

### **Required Timing of Offset for New Dischargers**

1. First bullet, Implementation requirements, page 7: This is confusing: “Implementation of the offset/credit for any proposed new or expanded actions must be demonstrated to have occurred in advance of the proposed action.” How can a proposed action be proven and implemented in advance of it being acted upon?

2. The first bullet under “Implementation requirements” states that “Implementation of the offset credit for any proposed new or expanded actions must be demonstrated to have occurred in advance of the proposed action.” This statement is unclear to us. We assume that an “action” is a discharge or other operation that affects water quality. Is that correct? How would this statement apply to an existing discharge or other operation that may affect water quality, such as a dam?
3. Page 7, "Implementation requirements," 1st bullet: "Implementation of the offset/credit for any proposed new or expanded actions must be demonstrated to have occurred in advance of the proposed action." Please clarify whether this section is describing the implementation of an alternative trade, or any trade. Please explain what is meant by "any proposed new or expanded actions (i.e. is this referring to new or expanded BMPs, new or expanded TMDL actions, etc.)."
4. The first bullet under “implementation requirements” on page 7 seems to require that a credit will not be allowed consideration in negotiations for an NPDES permit unless it has been implemented previously. If this reading is correct, this seems extraordinarily restrictive. In current practice, permittees are NOT typically required to construct and make their technological solutions operational prior to approval of a permit – why would one require this for nonpoint BMPs that will be used for the same purpose.  
  
This is more than just a matter of timing. It would require the permittee to secure credit to pay for nonpoint BMP implementation before securing its approved permit, which is probably impossible or at least very difficult. And there is no apparent reason for this requirement, other than, perhaps, an unjustified confidence in the reliability of technology.
5. I’d recommend reconsidering the recommendation that the implementation of the credit or offset project would need to happen prior to the “proposed action”, which I take to mean the use of the credit to meet NPDES permit requirements. Inasmuch as most point-source treatment options would be implemented following the negotiation of NPDES permit conditions (and probably couldn’t be financed otherwise), it seems to make sense to allow implementation of the nonpoint credit production after the fact as well. This would remove a significant impediment to community-driven trading proposals.

### **NPDES Permits and Trading**

1. The single largest and overriding concern that Spokane County would like to express is that we believe that Washington State already has WAC 173-201A-450, which authorizes and defines water quality offsets, and does not require a trading program to implement offsets. Under this authority, the equivalency of pollutants within a POTW should not require the cumbersome process that will be used for trading. Ecology has all of the tools necessary to regulate pollutant equivalency within a single POTW through permit conditions in a NPDES permit. Furthermore, equivalency within a POTW will not involve multiple parties and no contractual trades need to occur.
2. In the fifth bullet under “**Determining eligible trades**”, it says “Trading one oxygen-related pollutant for another, such as ammonia for phosphorus,...”. Pollutant equivalency within a single POTW should be handled through the NPDES permit process for that facility, not through the cumbersome trading program being proposed by Ecology. The trading program should be limited to those situations where more than one party is involved with the credits and offsets being proposed.
3. The Trading Program Lacks Oversight and Regulations for Trading within Entities. The Trading Program proposes the possibility of trading within entities without going into detail about what is required for those entities to disclose. The concern is that nutrient trading within entities will go unmonitored by the public, or will merely be a program that an entity is already legally required to do by another statute or regulation. An entity should not

be able to double dip and make a “trade” with itself unless it demonstrates a clear reduction of that pollutant, and that the reduction is outside additional regulatory requirements.

Recommendation: We want assurances that trading within entities will comply with the same requirements as trades between point and non-point traders, if applicable. We particularly want guarantees for enforcement, transparency, and contemporary trading, the same guarantees as explained in section A, B, and F of this comment letter.

4. With respect to pollutant equivalency at a single entity for a single point of discharge, the determination of equivalency should not be subject to the process that is outlined in the draft trading framework. While some of the same demonstrations that are part of the draft trading framework may be required, the establishment of equivalency and the appropriate compliance demonstrations should remain a part of the discharge permit renewal process.
5. Suggest specifying which type(s) of NPDES permit is being addressed. It is unclear whether this section refers to NPDES industrial permits, general construction stormwater permits, municipal stormwater permits, or all NPDES permits. Included as a general comment above, suggest breaking down this section for each group that trading may apply (i.e. industrial permittees, TMDL stakeholders, etc.).

### **Timing of Credits**

1. In the second bullet under “Elements of a credible water quality trading program,” it says “Credits should be generated and used within the same time period...” In the case of the Spokane River for dissolved oxygen, the modeling work done by EPA and Portland State University has clearly demonstrated that phosphorus loading in the early spring (February and March) has a significant effect on dissolved oxygen in Long Lake during the remainder of the TMDL season (June–October). Therefore, it is clear that offsets of P in one time period can have a demonstrable benefit on dissolved oxygen during other time periods. The paper should be clarified to allow for this, if demonstrated through use of the model.
2. The Trading Program Must Require Trades to Occur Contemporaneously. We require that all credits and trading occur contemporaneously. The EPA provides guidance documents on Nutrient Trading. We agree with the EPA that credits should be generated before or during the same period that they are used ([http://www.epa.gov/npdes/pubs/wqtradingtoolkit\\_app\\_b\\_trading\\_policy.pdf](http://www.epa.gov/npdes/pubs/wqtradingtoolkit_app_b_trading_policy.pdf) See § (III)(G)(3)). We also want assurances that credits will not be built up in the winter months and used in the summer months, when high levels of phosphorous are a problem and the River is running low.

Recommendation: We suggest adopting the language from EPA’s guidance document adding a section to the Trading Program that requires credits to be generated during the same period as they are used.

3. Allowing early action—Does “used in the same timeframe” mean that reductions cannot be banked or done ahead of time? Is phosphorus loading the kind of impact where credits should not be issued in advance? What about other kinds of impacts? (second bullet in “Elements of a Creditable Water Quality Trading Framework”)

### **Proposing an Alternative Trade**

1. The draft framework document states that during the initial consultation Ecology may either reject a trading proposal or provide “written feedback” on weaknesses that must be addressed and items that must be included. It is important that criteria and procedures be established as early as possible during the development of a trading program. Otherwise, uncertainty will likely deter potential proponents from investing time and money needed to develop trades.

2. Page 5 and 6, "Proposing an alternative trade": We assume this section pertains to a discharger proposing to use a new BMP/technology that is not included in Ecology's Stormwater Management Manual (SWMM), or an equivalent manual, similar to the demonstrative approach. We assume this section would not apply to get a BMP/technology added to the list of "eligible BMPs for trades" if it is already included in Ecology's SWMM. The steps involved in proposing an alternative trade seem very onerous to simply get an Ecology-approved BMP added to the list of "eligible BMPs for trades." As written, it is not clear when this would apply.

3. I'd also suggest that the Department remain more open to proposals regarding the types of trades that are eligible, the BMPs that are creditable, and the trading ratios required. While it is obvious that Departmental approval is necessary on these matters, having prospective trading program sponsors initiate the development of these requirements and standards would speed the execution of trading programs and encourage innovative approaches. I'd suggest that it may make sense for the Department to establish goals and call for proposals from prospective trading program sponsors for procedures to meet the goals. I don't feel that the difficult process for proposing alternative trades offers this opportunity.

### **Credit Accounting /Trade Accountability (Contracts, Installation, Maintenance, and Monitoring)**

1. What will be the administrative resource requirements (org chart, staffing, budget) for setting up and implementing a bi-state trading program, including reviewing and evaluating trade proposals, tracking trades, accounting for credits issued and retired, verifying implementation, etc.?

2. Second bullet, Monitoring, page 8: Why does Ecology need data reported monthly, instead of in line with quarterly DMRs? How would this policy apply to Idaho dischargers, if at all?

3. We are leery of trades that involve non-point sources. It has been our experience that individual non-point sources do not reliably deploy and/or maintain BMPs and that there can be tremendous variability in the benefits derived from like BMPs deployed by different landowners and in different areas.

Further, it is often the case that there is no monitoring of individual non-point sources and as such is not possible to accurately gauge the value of specific BMP project. If nonpoints are to be allowed to sell credits, Ecology must ensure that site specific monitoring is reliably taking place and that they are submitting the equivalent of a point source's DMR.

4. In the first bullet under "Identifying eligible BMPs for nonpoint trades", it says "A date for offset effects to be measurable at the compliance location." This is not clear, and may be impracticable. For example, in the Spokane Watershed, some dischargers will potentially need a credit and trade for approximately one pound of phosphorus per day. It is impossible to measure one pound of loading in the Spokane River at the compliance point, which is just upstream of Long Lake.

5. In the third bullet under "Ecology issues NPDES permit", it says "Credits are linked to NPDES permit. Dischargers will report raw sampling results..." We agree that credits and trades need to be properly defined in a NPDES permit, once they have been approved by Ecology. However, we do not agree that "trade adjusted results" need to be reported on monthly DMR's in every case. For example, Spokane County has prepared and submitted a Wastewater Facilities Plan to Ecology that proposes offsets and credits related to elimination of septic tanks, which will eliminate a phosphorus load to the Spokane River. Once these septic tanks are eliminated, there would be no need to report a "trade adjusted result" on the County's DMR's each and every month thereafter. We do agree that pollutant equivalency within a treatment facility should be provided for in a NPDES permit, and would require a reporting mechanism to insure that the pollutant equivalency is maintained during the TMDL season. As stated in a previous comment, the equivalency may not be temporal, since dissolved oxygen in Long Lake has been proven to respond to pollutant loading in previous time segments. Therefore, it would be

inappropriate to have a DMR reporting requirement where loading is only viewed on a single month. In the case of the Spokane River TMDL, loading over the entire TMDL season will determine compliance.

6. The second bullet under “Implementation requirements” states that “Point or nonpoint source controls must be secured using binding legal instruments between any involved parties for the life of the project that is being offset.” We interpret this to mean that contracts or other binding legal instruments must be in place for any period when credits are being used to meet an obligation to improve water quality. Thus, a discharger could sign a series of short-term contracts, “stacking” them so the discharger has necessary credits as long as its discharge continues. We do not read it to say that the duration of each such contract must be for “the life of the project that is being offset.” In our view, that could be an unworkable requirement for two reasons. First, sources that generate credits may be unwilling or unable to enter into such long-term commitments for legal or other reasons. Second, it may not be clear what the “life of the project” will be, given the diverse nature of projects that may use offsets, including municipal sewage treatment plants, industrial dischargers, and dams. We would appreciate clarification on this point.

7. The second bullet under “Permittee implements offset” states that “Ecology may conduct periodic inspections, including but not limited to visual inspections, and water quality monitoring, at any time during the life of the offset.” Does Ecology intend to enter onto private property to conduct inspections and monitoring? If so, will it obtain access using its own authorities, or will it expect entities who buy credits to negotiate access on Ecology’s behalf? We believe that if entities buying credits are to negotiate independent access for Ecology, the terms of access should provide that Ecology may enter onto the property only during normal business hours and only after giving reasonable notice to the property owner and to the entity that holds the credit.

8. The Trading Program Must Include a Fully Developed Compliance and Enforcement Plan. The Trading Program inadequately describes compliance and enforcement, particularly when the trade is between a point source discharger and a non-point source. While we understand that this is a draft in its early forms, and that the draft is for a Statewide program, the actual details of the Spokane trading program must contain specifics for how compliance will be measured and what enforcement will occur if non-compliance is detected.

As drafted, the Trading Program for a point source to non-point source trade appears to allow compliance determinations be made by the discharger, with oversight conducted by Ecology. However, Ecology was directly asked at the first meeting on the trading scheme whether it would dedicate a person to determine compliance and enforcement of this program and the answer was no. How will Ecology ensure that a discharger is complying with its permit limits? How will that compliance occur between Idaho dischargers and Washington dischargers? How will Idaho DEQ and Ecology ensure that trades between an Idaho discharger and a Washington non-point source, or vice versa, will accurately reflect the amount of pollution reduced?

The regulator cannot merely assume that the discharger and the contract party that installs a BMP will adequately ensure compliance with the trading program. We want more guidelines on enforcement of BMP compliance, including not only adequate implementation but also assurances that the BMP is working as designed and intended. The best method for determining compliance is monitoring. If a party enters into a contract with a 3rd party for implementation of a BMP, we request that someone conduct stormwater sampling prior to implementation of the BMP to determine the baseline for the site, and then sampling during the BMPs existence, to ensure that expected reductions are actually occurring. We also want transparency of the monitored results. We ask for this transparency to come in the form of online accessibility to the monitoring results and the effects of the BMPs.

Recommendation: We recommend that a third-party be hired to conduct monitoring and compliance for non-point source and point source credits/trading. We request the monitoring be paid for by the participants of the Trading Program and be overseen by Ecology. Alternatively, given Ecology’s budgetary constraints, an independent organization that will report to Ecology may be hired. Eastern Washington and Northern Idaho have several

Universities and Community Colleges that have water quality sampling and monitoring capabilities that could oversee such a program. Without adequate oversight, the real possibility exists that the Trading Program will fail to actually reduce phosphorous levels in Lake Spokane. The environmental organizations are not interested in a scenario, where the parties are negotiating another “solution” to the nutrient problem decades after the first “solution” was implemented.

9. The Trading Program Lacks Provisions Guaranteeing Transparency of Trades and BMP Effectiveness. We require that all credit trading and BMPs are transparent and readily available for review without request. We want easy readily available monitoring of trading practices open to the public. In order to promote transparency, we request that the results of the monitoring and compliance are posted online by the organization overseeing compliance. We request detailed DMRs be completed on a monthly basis, and that Ecology reject any discharger’s suggestion that compliance be determined on a seasonal basis. The Clean Water Act, all applicable regulations, and the TMDL, require compliance with effluent limits be during the reporting period, i.e., monthly for phosphorous limits. We request that the monitoring be completed and submitted to Ecology in the same timeframe as DMRs, to ensure compliance with NPDES permit limits.

Recommendations: We request that the trades be posted online as soon as completed. We also request that the third party verifiers have access to the same database to upload data on the effectiveness of BMP’s within 3 days of their verification. We want all sampling results to be posted online so the public, the discharger, and Ecology may monitor the effectiveness of the BMPs.

Included in the third party verification must be the location of the trade, the identification of the trading partners, including the name, phone number, NPDES permit number and address of the person in charge of maintaining the BMP. We want full details on the BMP utilized in the trade, including a description of when it was installed, verification that it was implemented correctly and is continuing to function as required, and an explanation of any modifications or changes to the BMP during the reporting period.

10. The Trading Program must have waterbody specific trading ratios. Trading ratios are required when trading between a point source and a non-point source. Other trading programs have established trade ratios that are specific to their watersheds. Trading ratios that are specific to the Spokane River benefits both dischargers and environment. Arbitrary ratios could lead to ineffective BMP’s receiving more credit than they are worth. This would result in more pollution entering into the River than traded for. Arbitrary ratios can also be damaging to the discharger if they are overwhelmingly hard to meet to enable or incentive trading.

Recommendation: We want the Trading Program to establish specific trading ratios based on the Spokane River and Lake Spokane. We want this to be done with verifiable site specific sampling and testing. These ratios do not need to be established in the Trading Program at this time, they can be developed over time based on experience and effectiveness of BMPs. Ecology must be able to monitor and adjust trading ratios to reflect their true value to both the dischargers and the environment. We acknowledge that we will gain insight on the effectiveness of the trading program over time. We do not want to lock ourselves into trading ratios that reflect neither the nature of the Spokane River nor the specific characteristics of the BMP.

11. The Clean Water Act is silent on nutrient trading in waterways. We remind those engaged in the Trading Program that the Clean Water Act is silent on nutrient trading. The Nation’s experience with nutrient trading makes us skeptical of the success of this program, particularly based on point source to non-point source trades. However, we acknowledge that nutrient trading has the potential to make a positive impact on the health of the Spokane River. With that said, we demand verifiable proof that nutrient trading will work in the Spokane River before we make a long-term commitment to the Trading Program. It benefits all parties to produce verifiable site-specific data showing that a nutrient trading program will successfully reduce phosphorous in Lake Spokane before the Trading Program is approved. We want to see a Trading Program that is transparent, that is enforceable, and has a system that will effectively increase the dissolved oxygen levels in Lake Spokane.

In the event that the Trading Program fails to achieve its goals of using BMPs to reduce pollution in Lake Spokane we remind dischargers that they must meet their effluent limits as required by the DO TMDL and their NPDES Permits. We interpret the Clean Water Act's silence on nutrient trading to represent Congress's intent not to have water pollution handled in this manner. We are prepared to pursue judicial recourse in the event the Trading Program fails to achieve the wasteload allocations set forth in the DO TMDL.

12. Regionally consistent credit accounting—Working with partners in the Chesapeake and the Midwest, we have found that water quality trading and other environmental markets need many of the same things: methods to quantify benefits, standards for verification, and tools to track project and program performance. Standards are now converging and many tools have been built for tracking. The benefits and costs of maintaining and improving these standards and tools can be shared among existing and emerging markets. The Willamette and Chesapeake are currently sharing technology tools that allow land managers to identify their eligibility and streamline crediting and verification processes. However, effectively sharing this market infrastructure, requires some consistency in market policy and protocols. To this end, we are glad to be working with DoE and other stakeholders in Washington as they develop trading frameworks.

13. Crediting, verification, stewardship and monitoring—It might be very staff intensive for DoE to estimate credits for every proposed project, then review again if the project generates different results than expected, and then verify these results. The program in the Willamette ties credits available for sale to achieving performance standards. Establishing performance standards for a BMP upfront provides a framework for project implementation and crediting. DoE or another third party (such as a conservation district) could then verify that performance standards are met and that the seller's estimate of credits is reasonable. Identified funds and persons responsible for monitoring and maintenance can be an eligibility requirement for trading.

14. Tracking multiple funding sources through an ecosystem credit accounting system--“Trading can provide a fund source for nonpoint pollution controls in addition to the currently available fund sources. “ (pg 2 paragraph 2) Funds already dedicated to conservation should not be used to create credits for sale, but it is often necessary to articulate which funds are funding which parts of a restoration project; this requires an accounting protocol for multiple funding sources to establish ownership of credits. If state conservation dollars (e.g. 319 funds) fund a certain percent of a project, that same percent of credits can be retired on the public's behalf.

15. Page 7, "Implementation requirements," 2nd bullet: "Point or nonpoint pollution controls must be secured using binding legal instruments between any involved parties for the life of the project that is being offset. The proponent remains solely responsible for ensuring the success of offsetting activities for both compliance and enforcement purposes." 1. Suggest replacing the term "instrument" with "document," and/or provide examples of what kind of legal instrument would be acceptable. 2. Please clarify whether the "proponent" is the credit earner or the credit buyer. Page 5 and 6 refer to the proponent" as a discharger proposing a trade, or credit earner. Based on that, use of the term in this instance should mean the credit earner as well. However, it is unclear. Suggest using easily understandable, consistent terminology, such as credit earner and/or credit buyer throughout the document to avoid confusion. Since either a credit earner or buyer could also be a "discharger," suggest adding these terms and definitions to the glossary. 3. EPA's Final Water Quality Trading Policy states, "In the event of default by another source generating credits, an NPDES permittee using those credits is responsible for complying with the effluent limitations that would apply if the trade had not occurred."1 The information included in this bullet seems to contradict EPA's guidance.

16. Page 7, "Ecology issues NPDES permit," 1<sup>st</sup> paragraph, 3rd sentence: "This presumption may be overcome by evidence that the practices providing credit are found to be not effective or not adequately implemented or maintained." Please explain how this will be handled as it relates to permit compliance. If a NPDES Municipal Stormwater permittee purchases credits to meet a TMDL WLA and associated compliance timelines, permit compliance could/would be jeopardized and there may not be resources available to regain compliance within the

designated compliance time lines. Suggest expanding on this section to describe potential impacts to the different permittee groups and stakeholders that this might affect.

17. Page 7, "Permittee implements offset," 151 bullet: "To ensure credits are accrued and used in the same time period, the discharger must certify each month that offset activities/technologies are in place, being operated and maintained correctly, and that pollutant reduction associated with the action is being achieved." Please clarify if the "discharger" is the credit earner or credit buyer. 1. Please clarify if this sentence is duplicative of the information in "Implementation requirements," 2nd bullet, 2nd sentence. It is unclear if these two sentences are referring to the same implementation activities (i.e. "ensuring ... compliance and enforcement", and "certify each month ... ") and/or implementers (i.e. the "proponent" and the "discharger"). 2. Please clarify how someone could certify that "pollutant reduction associated with the action is being achieved," without performing monitoring. Suggest revising this portion of the sentence to state, " ... offset activities/technologies are in place, being operated and maintained correctly, and functioning as intended," unless monitoring is required.

18. Page 8, "Monitoring," 1<sup>st</sup> bullet: "For point source discharges undergoing technology-based measures, Ecology may verify (pre and post-implementation) the magnitude and quality of discharge at end-of-pipe." Please clarify what is meant by "technology-based measures," and/or provide examples.

19. Page 8, "Monitoring," 2<sup>nd</sup> bullet: "Participant conducts monitoring as established either through the offset study report or alternatively, through a post-TMDL monitoring plan. Monitoring results and any additional reporting required by Ecology to document the offset are produced and submitted to Ecology monthly. 1. Please explain who is considered the "participant." It is unclear if the term is referring to the credit earner or credit buyer. Suggest using consistent terminology throughout the document for clarity. 2. If the credit buyer will be required to perform monitoring, it may be a disincentive to participate in the trading program. 3. If the credit earner will be required to perform monitoring, please clarify if that only applies if they are "proposing an alternative trade." If monitoring will apply to all credit earners, whether proposing an alternative trade or not, it may be a disincentive to participate in the trading program.

20. P. 4: It would be useful if the Draft Framework could include mention that one of the elements of a credible water quality trading program is that there be early participation by nonpoint sources, by permitted point sources, and by the community in designing the market arrangements that will be used. Such input is quite important if we are to develop community support and confidence in the final product and if we are to have confidence that the ultimate program will be reliable. And it is necessary to have such input from the farm community, for example, if we are to be sure the program will be workable for agriculture.

21. P. 7: This section requires that the "discharger must certify each month that . . . pollution reduction associated with the action is being achieved." This is highly burdensome. It certainly seems appropriate to require frequent assurance by discharger that, indeed, the practices are in place and being operated correctly. But it also seems a bit excessive to require such often certification that the actual pollutant reductions are, in fact, being achieved – this would require monthly (and highly costly) monitoring which seems quite impractical and unnecessary. If one has (as one should) the confidence in the effectiveness of the BMP when a trade transaction is initially approved, why would one require such burdensome monitoring and rigorous frequent certifications later on. The interval for this requirement should be a good deal less frequent.

22. It may be a bit much to expect that permittees not only certify that offset activities are taking place and are maintained properly, but also demonstrate that pollution reductions are being achieved on a monthly schedule. This would presumably require a monitoring program that would add substantially to program costs. It is probably more practical to require data on pollution reductions on a less frequent interval.

23. Under “monitoring” the guidance document suggests monthly monitoring be submitted to Ecology monthly. The document provides no statistical backing for a monthly monitoring regime. A Quality Assurance Project Plan determines monitoring frequency, not a universal application of a monthly monitoring requirement.

### **Credit Expiration/Retirement**

1. First bullet, Credit expiration/retirement, page 8: This needs to be explained in greater detail, but it seems to imply that credits obtained through great effort and expense can suddenly be wiped out for any or no particular reason. If true, this imparts uncertainty into the trading program, and is a distinct incentive to do nothing.
2. We endorse your statement that “[t]he objective of a water quality credit-trading program is to facilitate economic exchanges that demonstrably reduce pollution and clean up impaired surface water more quickly” (Page 1).

We do not support trading if the only intent is to save the buyer money. Trades are not merely about economic efficiency. Trades are about reducing pollution. To this end we believe that mechanisms need to be inserted in your framework that provide for the mandatory permanent retirement of credits and a ‘conservation factor’ to be inserted in the calculation of ratios. Ecology flirts with this notion a little bit in the section entitled, “What is a credit?” and a later sentence entitled “Retiring credits.” Your framework would be strengthened considerably by explicitly stating that there *must* be permanent conservation benefits to trading rather than allowing terms like “may” to govern.

3. In the first bullet under “Credit expiration/retirement”, it says “If they become actions required by a permit, by a TMDL load or wasteload allocation or TMDL implementation plan, or by policy regulation.” This statement provides a high level of uncertainty for the dischargers. How do we know that after one permit cycle, Ecology won’t just change the NPDES permit? How do we know that Ecology wouldn’t just change its policy, or change its TMDL implementation plan? We suggest deleting this statement from the paper.
4. The first bullet under “Credit expiration/retirement” states that approved credits will expire “If they become actions required by a permit, by a TMDL load or wasteload allocation or TMDL implementation plan, or by policy regulation.” Please delete the next-to-last word in this sentence, “policy.”
5. The second bullet under “Credit expiration/retirement” states that approved credits will expire “If the BMPs by which the credits are accrued are shown to be ineffective or less effective than originally expected.” We agree that credits should expire if actions taken to reduce pollution are wholly ineffective. But if they are simply less effective than originally expected, Ecology should adjust the credits downward, rather than causing them to expire altogether. By the same token, we believe that Ecology should adjust credits upward if monitoring results or other information show them to be more effective than originally expected.
6. The draft framework document states that approved credits may expire “...by policy regulation.” If established credits can be negated by “policy regulation,” the value of the credits would presumably go to zero. This uncertainty could prevent trading in the first place.
7. Please clarify whether the credit expiration/retirement date will be known when the credit is traded. If so, suggest including that information in this section of the document. If not, permit compliance could/would be jeopardized by an unexpected expiration or retirement of credits and resources may not be available to regain compliance within the designated compliance timelines. If expiration/retirement date will not be known when credits are traded, suggest expanding on this section to describe potential impacts to the different permittee groups and stakeholders that this might affect.

8. P. 8: In this section it might help to also acknowledge and account for the fact that some credits actually become more effective over time (like planting trees along streams) while others require regular maintenance to generate the same amount of credits (like mowing grass buffers and reseeding them periodically).

Also, in this section, it seems unwise to force the expiration of credits if a higher standard of load allocation is established in a subsequent permit. There is a big advantage to longer-term contracts for all concerned. The initial formation of such long-term contracts should be encouraged by allowing them to be completed for their full term. New, higher standards can later be met with additional new contracts when the time comes.

9. The final suggestion I have is to change provisions regarding the expiration of credits if a higher standard or loan allocation is established in a subsequent permit. It seems desirable that contracts between permittees and nonpoint credit providers be for as long as possible to increase the certainty of water quality improvements, but it will be difficult to secure long-term agreements if they can be abrogated by adjustments in standards in later permits. I would suggest that long-term credit contracts be honored through their terms.

10. Under the sub-heading “Credit expiration/retirement” It mentions that a credit will expire if “policy regulation” occurs. Please explain an example of policy regulation. What does this mean?