

September 15, 2006

Cheryl Niemi and Melissa Gildersleeve
Washington State Department of Ecology
P.O. Box 47600
Olympia, WA 98504

Subject: Comments on Ecology's draft Economic Feasibility Guidance for Dams

Dear Ms. Niemi and Ms. Gildersleeve:

Public Utility District No. 1 of Chelan County, Washington, Public Utility District No. 1 of Douglas County, Washington, Public Utility District No. 2 of Grant County, Washington, Avista Corporation, Puget Sound Energy, and Seattle City Light (the Licensees) appreciate this opportunity to offer comments on the Washington Department of Ecology's (Ecology) draft "Guidance for Evaluating the Feasibility of Controls to Meet Water Quality Standards for Dams in Washington," (Guidance), which was released for public review on August 15, 2006. Each Licensee has either undergone or will undergo the rigorous Section 401 state water quality certification process as part of its effort to obtain new federal operating licenses for its hydroelectric project(s). Our experience with Ecology's water quality certification process leads us to believe that the proposed Guidance, while well-intentioned, is unlikely to achieve its stated purpose.

Ecology states on page 1-1 of the Guidance that its purpose is "to assist the operators of dams and other large hydrologic modification projects in the state to comply with WAC 173-201A-510(5), Compliance Schedules for Dams, and the public and Ecology in reviewing economic feasibility analyses." Ecology then clarifies that the Guidance focuses on only one aspect of compliance - namely, on the types of information Ecology will need in order to conduct an economic feasibility analysis.¹ In other words, it only "provides the dam owner/operator with the tools needed to substantively demonstrate that the proposed project identified to attain the water quality standard is, or is not, economically feasible." Guidance at 1.1.

As you know, Chelan PUD's water quality certifications for the Lake Chelan and Rocky Reach Projects include references to measures that will be implemented to meet biological objectives for fish and water resources, to the extent those measures are "reasonable and feasible." This terminology mirrors language in Ecology's rules pertaining to water quality attainment plans, as well as the Washington Water Pollution Control Act that provides for the implementation of "all known, available and reasonable technologies" (AKART). RCW 90.48.010.

Under WAC 173-201A-510(5), if a dam does not comply with water quality standards at the time of certification under Section 401, the dam owner must enter into a water quality attainment plan that does not exceed 10 years. Further, if an applicable water quality standard is not met at

¹ Ecology states on page 1-2 of the Guidance that "feasible" includes both engineering and economic feasibility and that the Guidance only addresses the second step (economic feasibility).

the end of the time provided in the compliance plan, or after completion of all “reasonable and feasible” improvements, the owner must evaluate whether any new “reasonable and feasible technologies have been developed.” WAC 173-201A-510(5)(g)(i). If no such technologies are available, the owner can then propose an alternative to achieve compliance with the standards, including site-specific criteria or a use attainability analysis (UAA). WAC 173-201A-510(5)(g)(ii).

It is essential that Ecology establish a regulatory pathway for dam owners/operators to follow in the event water quality standards are not met after implementation of a 10-year compliance plan. However, the draft Guidance is too narrow to achieve this goal because it only addresses “feasibility,” and ignores the requirement under Washington statutory law and Ecology regulations that water quality measures be “reasonable” as well as “feasible”.

In addition, the Guidance fails to recognize that Washington’s water quality standards consist of both numeric criteria and narrative standards. WAC 173-201A-010(1)(b).² It is important that the Guidance acknowledge that compliance with water quality standards consists of balancing both the numeric and narrative components. In other words, numeric criteria cannot be accorded a preferred status over narrative standards. In fact, the Pollution Control Hearings Board has specifically held that “strict adherence with number water quality criteria” is not always appropriate. *Confederated Tribes of the Umatilla Indian Reservation v. Department of Ecology*, PCHB No. 03-075, April 21, 2004. Moreover, narrative standards lend themselves to more holistic management of the resource instead of an isolated focus on numeric criteria that may not reflect the overall condition of a water body.

The Licensees see the “reasonable and feasible” determination as the heart of Ecology’s Compliance Schedules for Dams regulation. This determination is comprised of four steps: (1) identification of on-going project-related impacts, if any (Impact Analysis), (2) identification and evaluation of available technologies to address identified impacts (Technical Feasibility), (3) “reasonableness” assessment that includes evaluation of potential regulatory conflicts, benefits and corresponding costs of implementing technically feasible measures, including potential conflicts of complying with other laws and regulations (Reasonableness Assessment), and (4) evaluation of the financial impact of implementing the measures (Economic Feasibility Analysis).

The draft Guidance only addresses the final step, providing no guidance as to the first three steps. The following explains the first three steps, and why each of them is essential to making a rational decision at the end of the 10-year compliance period.

² Ecology defines numeric and narrative standards/criteria as follows:

Numeric Standards: Numeric water quality criteria assigned to protect designated uses in the water quality standards (Chapter 173-201A WAC) from the detrimental effects of specific water quality constituents.

Narrative Criteria: Are non-numeric water quality criteria that establish qualitative performance goals to protect beneficial uses from detrimental conditions (e.g., meet requirements of use, no toxic effects, no offensive odors, no blockage of migration).

1) Impact Analysis

The first step in determining what a Licensee must do to comply with water quality standards is to exclude from consideration those matters that are beyond the control of the applicant. To the extent that non-compliance with a water quality standard results from causes outside the control of the applicant, the applicant is not responsible, and steps toward attainment cannot be required, no matter how large or small the economic consequences. The Washington State Pollution Control Act provides that:

With respect to federal energy regulatory commission licensed hydropower projects, the department may only require a person to mitigate or remedy a water quality violation or problem to the extent there is substantial evidence such person has caused such violation or problem.
RCW 90.48.422(3).

For example, if water arriving at a hydroelectric project already violates the temperature or total dissolved gas standard, the applicant cannot be expected to remedy that problem. The Guidance should cite this statute, making it clear that the Guidance only applies to remedying water quality violations or problems that were caused by the Licensee.

In addition, there may be cases where a Licensee can demonstrate that non-compliance with the numeric standard is so rare or de minimis that development of any improvement would not benefit the resources. In these cases, it would not be worthwhile to implement any improvements, regardless of costs or feasibility. This possible scenario should be noted in the Guidance.

2) Technical Feasibility

Provided that an Impact Analysis has determined that the violation is directly attributed to the hydro project of concern, the next step in the process is technical feasibility. Technical feasibility determines whether something can be built and implemented that will achieve its stated goal. Proposed structural and operational compliance strategies may include: (1) changing the quantity and timing of release and diversions; (2) changing the location of the discharge; (3) upgrading or constructing water treatment facilities, (4) modifying structures, and (5) mitigation that may not be related to the dam's structure or operation (e.g. forest buffers). Guidance at 3-1.

A structural or operational measure intended to ensure compliance with water quality standards may not be technically feasible if, for example, hydrologic conditions or physical characteristics of the site substantially reduce or eliminate the measure's efficacy. In addition, a proposed measure would also be technically infeasible if it solves one water quality problem but negatively affects another water quality criterion or the biological resources or other beneficial uses that are intended to be supported by the numeric criteria.

In those instances where attaining water quality compliance after 10 years is not technically feasible due to such considerations, there is no point in proceeding to steps three and four. Yet Ecology's draft Guidance provides little direction as to where an applicant should turn in this situation. To remedy this, the Guidance should acknowledge this scenario, and point the applicant toward the two most likely regulatory pathways, a use attainability analysis (UAA) or a

site-specific standard. Where technical infeasibility makes a UAA or site-specific standard appropriate, there is no need to examine economic feasibility, and the Guidance should make that clear.

3) Reasonableness Assessment

Consistent with its own regulations and the Water Pollution Control Act, Ecology must, as step three, assess whether a measure to address project impact that has been deemed technically feasible and is reasonable to actually implement. The Licensees recognize that the Guidance tries to put some boundaries around the level of economic harm to utilities and communities. However, before that analysis should be performed, Ecology should adhere to its own regulations and consider the proportionality of benefits to be derived from the incremental gain. In other words, a proposed alternative must be “reasonable.” The ordinary dictionary definition, provided by Webster’s, notes that “reasonable” means “not conflicting with reason,” “not extreme or excessive,” “moderate,” “fair,” “inexpensive,” and “possessing sound judgment.” Just because a community and utility can theoretically afford to pay for something does not make it worth doing if the biological benefit is negligible, the cost is great, and the adverse impact on other beneficial uses of the resources is considerable.

Ecology’s regulations not only allow for this approach, they require it. Pursuant to WAC 173-201A-510(5)(b)(ii), feasibility is only part of the test for compliance with water quality standards for dams:

Identification of all reasonable and feasible improvements that could be used to meet standards, or if meeting the standards is not attainable, then to achieve the highest attainable level of improvement.

This regulation makes clear that feasibility alone is insufficient; the improvement can only be ordered by Ecology if it is also, “reasonable”. Among other things, “reasonable” requires Ecology to consider the relationship between the costs and benefits of a proposed measure.

Ecology explains that the results of the financial analyses described in the Guidance can inform later discussions about whether project costs justify the impacts to water quality. The Licensees’ concern is that it does not make sense to go through this costly analysis unless and until a reasonable alternative has been identified. Otherwise, the exercise would be an unnecessary expenditure of time and resources.

Ecology states that instances where a costly project produces only limited benefits are “beyond the scope of this draft guidance.” Guidance at 4. Therefore, under Ecology’s approach Licensees have no avenue to follow pursuant to the Guidance in the event that Ecology seeks to require a measure that is disproportionately expensive in comparison to the benefits likely to be achieved. Because the balancing of multiple uses of the resource is a common problem faced by Ecology and applicants, the absence of this discussion is a significant failure of the document. The Guidance also ignores Ecology’s obligation under both its own regulations and the Water Pollution Control Act that water quality measures be “reasonable.”

Achieving overall compliance with water quality standards requires balancing numeric and narrative standards, including Washington's antidegradation regulation which provides that "[e]xisting beneficial uses shall be maintained and protected and no further degradation which would interfere with or become injurious to existing beneficial uses shall be allowed." WAC 173-201A-070(1).³ The Guidance document needs to make this clear, and to avoid any implication that the sole purpose of the water quality standards is to attain compliance with numeric criteria. Such an approach would be contrary to the Pollution Control Hearing Board's determination that strict adherence to numeric criteria is not always appropriate. Even EPA has warned against a strict adherence to numeric criteria, stating that "water quality standards programs must...be flexible enough for States and Tribes to ensure that standards are protecting water quality in a way that makes sense" because the EPA and the Clean Water Act seek "to avoid a program that results in costly requirements that have little or no environmental benefit." *Water Quality Standards Regulation*, 63 Fed. Reg. 36742, 36744 (proposed July 7, 1998).

4) Economic Feasibility Analysis

The Licensees believe an Economic Feasibility Analysis such as that described in Ecology's Guidance would be the fourth and final step in a process to determine whether a structural or operation fix is appropriate. This means that it would be used only after 1) a water quality compliance problem has been found to be related to project impacts; 2) a proposed fix is technically feasible; and 3) a proposed fix is "reasonable" in terms of proportionality of costs and benefits (including effects on other beneficial uses). At this stage, an applicant could approach Ecology to prove that a project is economically infeasible.

An applicant that chooses to use this tool would be required to identify control options for attaining water quality standards and present "the most cost-effective option" for attainment, among other alternatives. Guidance at 3-1. If none of the improvements can meet the water quality standard, the applicant should submit alternatives that can achieve the highest water quality attainable. The Guidance requires such an applicant to conduct a comprehensive financial analysis. While Ecology's Guidance provides a list of parameters that need to be provided by the applicant, it does not indicate how the information will be used. The Licensees find this to be of concern, because it means an applicant will be called upon to provide financial information with little understanding of what is really needed in order to prove that a proposed solution is or is not financially feasible.

In addition, the Licensees have specific questions and comments about the financial analysis contained in the Guidance. We include these by relevant section number below:

- Section 2.4, Conducting a Financial Analysis. Ecology's adherence to the principal of "ability to pay" is concerning. Ecology states that the applicant should determine "what level of control would be feasible based on the amount it can afford to pay." Guidance at 2-3. This focus on "ability to pay" is an inappropriate way to determine what course of action should be taken. First, as mentioned earlier, it does not consider whether the improvement is worth the cost. In addition, the concept presents a philosophical problem because it penalizes utilities who manage their finances well and rewards those who do not.

³ The Water Resources Act of 1971 specifically provides that "hydroelectric power production" is a beneficial use of the waters of the State. RCW §90.54.020(1)

- Section 2.6, Exhibit 1. The “Financial Analysis for Municipality or PUD” should not include unemployment rate. If addressed, which the Licensees don’t recommend, the impacts to the unemployment rate should instead be included in the Socioeconomic Analysis.
- Section 3.2, Foregone Revenues. Ecology suggests that foregone revenues should not be included when identifying costs and evaluating alternatives. Does Ecology’s interpretation of “foregone revenue” include spilled water lost to power generation? If so, the Licensees believe that foregone revenue must be included in the analysis in order to appropriately depict the magnitude and true costs of the proposed measure. Foregone revenue can directly impact the ability of the utility to keep rates low and to reinvest in operation and maintenance activities, capital projects, and environmental upgrades as much or even more than direct expenses. Therefore, foregone revenue impacts must be considered, though the Licensees understand that Ecology might want to see such impacts labeled differently than direct expenses.
- Section 4. Since they apply to municipalities and PUDs, ratios for liquidity, solvency and leverage and Benchmark Values could be included in this section.
- Section 4.1, Determining Capital Costs to be Financed (paragraph 1). It is inappropriate for Ecology to expect that a utility would liquidate “nonessential assets,” use cash reserves, or postpone planned future expenditures in favor of implementing a measure to meet water quality standards. This statement is at odds with basic utility financial planning, where bonding and borrowing generally occur before cash reserves are depleted. A certain level of cash reserves is necessary for prudent operation. This statement also seems to ignore the fact that utilities may be simultaneously planning to implement other environmental, regulatory, or hydroelectrical production improvements for other resources that may take priority over an incremental improvement in water quality that has little or no demonstrable biological benefit..
- Section 4.1, Determining Capital Costs to be Financed (paragraph 2). Ecology notes that “projects that can be paid for by available funds are not likely to pose a feasibility issue.” Guidance at 4-2. This is a fundamental flaw in Ecology’s reasoning. First, depleting cash reserves can have a significant impact on financial health and bond ratings. Second, considering only one water quality criterion at a time is risky. An entity may spend a disproportionate amount of resources to improve one water quality criterion when those resources may have been better applied elsewhere to address another water quality criterion that provides greater biological benefits. Moreover, the accumulation of other additional costs (ESA compliance, license compliance, river operation constraints, etc.) should all be considered when determining affordability and economic impacts for the utility and the local community. We strongly oppose an isolated “affordability” test because it does not evaluate the cumulative impact of rate or tax increases that are being passed on to the consumers for other resource protection efforts.

Utilities are subject to multiple environmental laws and regulations that sometimes impose competing obligations. Balancing must occur if demands to meet a water quality parameter

affect the ability of an applicant to address more pressing environmental needs. Finally, Ecology fails to recognize that a utility's funds may be better spent on improvements elsewhere in the utility that significantly improve reliability or safety for the utility's customers or employees. It is inappropriate to assume, without a full understanding of other priorities competing for limited resources, that a measure related to compliance with a water quality standard should always be the top priority.

- Section 4.2. This section should be removed. If it is included it should be moved from section 4 to section 7 because socioeconomic analyses are only required for financially feasible alternatives. Much of this analysis would not be needed if the alternative was deemed unaffordable for the applicant.
- Section 4.4, Overall Net Debt as a Percent of Full Market Value of Taxable Property. The Guidance should not include the market value of taxable property. Is Ecology contemplating that it may force applicants to institute their taxing authority to pay for projects? This is beyond Ecology's legal authority.
- Section 4.5. This section should be removed. If it is included it should be moved from section 4 to section 7 because socioeconomic analyses are only required for financially feasible alternatives. Much of this analysis would not be needed if the alternative was deemed unaffordable for the applicant. Also, paragraph 2 should read "The socioeconomic analysis..." not the financial analysis.
- Section 4 (Additional recommended section). If Ecology must include an affordability standard, it should include an evaluation of the impact to rates in the financial analysis. That impact would subsequently be utilized in the socioeconomic evaluation, if deemed affordable.

The Guidance indicates that the applicant should conduct a broader socioeconomic analysis of impacts on the surrounding region after a financial analysis is completed and if a project is found to be financially feasible for the applicant. In general, the Licensees find this the terminology in this section to be somewhat confusing. Discussions pertaining to financial and socioeconomic analyses are intermingled and terminology such as "widespread social impacts," "significant adverse impacts," and "adversely affect the economy" appear to be interchangeable. The threshold for economic harm needs to be more consistently defined and utilized in the Guidance.

The Licensees also have specific questions and comments about the socioeconomic analysis. We include these by relevant section number below:

- Section 4.2 Evaluate Household Costs, Compare Cost Per Household to MHI (the Licensees recommend that this be moved to section 7). In addition, the socioeconomic impact threshold of 1% is a very significant amount, especially when compared to the median household income (as opposed to the existing cost of a service). For example, in Chelan County, the average annual power bill may be \$1500 per year. The median household income may be approximately \$45,000. If ONE mitigation effort for one water quality criterion were to raise power costs by 1%, that would be an additional cost of power of \$450 per year, or a nearly

33% increase in the cost of power. Viewed in this manner, it is easy to see that a 1% increase is substantial.

- *Section 7.* As mentioned above with regard to the financial analysis for the applicant, the socioeconomic analysis should consider other pending costs and projects being born by a community, particularly the costs of environmental projects. Performing the socioeconomic analysis in a vacuum, could result in an inappropriate conclusion about the impacts to a community.

Conclusion

We believe that Ecology has the responsibility to assure compliance with the water quality standards in the most efficient manner while focusing on the real target: protecting beneficial uses. Current water quality standards provide Ecology with the flexibility to balance the range of values we associate with the State's waters (including hydropower). We encourage Ecology to consider developing a regulatory pathway that considers not only the term "feasible as it relates to the numeric criteria" but to consider whether the measures under consideration are "reasonable" as required by both Ecology regulations and the Water Pollution Control Act.

Failing to address the reasonableness question as required by Washington law could limit not only Ecology's ability to protect the resource, but also an applicant's ability to balance resource protection needs and regulatory requirements. It would also be helpful if Ecology expanded its discussion to explicitly state the relationship of the economic feasibility analysis to the broader reasonable and feasible evaluation process. This might be done in a new section 1.7 (Relationship to the "Reasonable and Feasible" determination process and UAA/site specific standards).

It is also important for Ecology to acknowledge in the Guidance that many utilities may never make it to the "Economic Feasibility Analysis" stage when evaluating potential measures for achieving water quality standards. In many cases, issues with technical infeasibility and disproportionate cost to benefit ratios will prompt a utility to request a UAA or site-specific standard prior to evaluating economic feasibility. This discussion could be included in the section entitled, "Who will Use This Guidance."

In summary, we would suggest that Ecology's guidance be amended to:

- Make it clear that a dam owner is only responsible for addressing impacts caused by its project;
- Provide sideboards for technical feasibility;
- Include a reasonableness assessment – Ecology's analysis does not address whether a proposed measure makes sense (e.g. is it "reasonable");
- Address the fact that water quality standards include both the numeric and the narrative forms - strict adherence with the numeric criteria is not required by the law and could be detrimental to the resources that we are trying to protect; and
- Define how the use of reasonable, achievable and measurable biological objectives can be used to protect resources (e.g. designated uses). In many circumstances, owners will

be able to comply with water quality standards by showing that the biological objectives have been achieved (e.g. by complying with the narrative component).

Again, we appreciate Ecology's willingness to include all stakeholders in the process of developing these guidelines. Thank you for asking for our input. If you have any questions or comments, please do not hesitate to call Gregg Carrington at (509) 670-2931.

Sincerely,

Dated this 15th day of September, 2006.



CHELAN COUNTY

PUBLIC UTILITY DISTRICT NO. 1 OF CHELAN COUNTY

A handwritten signature in black ink, appearing to read 'Richard Riazzi', written in a cursive style.

By: _____
Richard Riazzi, General Manager



PUBLIC UTILITY DISTRICT NO. 1 OF DOUGLAS COUNTY

W.C. Dobbins

By: _____
William C. Dobbins, Manager



PUBLIC UTILITY DISTRICT NO. 2 OF GRANT COUNTY

By: *Tim Culbertson*
Tim Culbertson, General Manager



AVISTA CORPORATION

By: Bruce Howard

Bruce Howard, Spokane River License Manager



PUGET SOUND ENERGY

By: Ed Schild
Ed Schild, Director Energy Production



SEATTLE CITY LIGHT

By:

Lynn Best

Lynn Best, Director of Environmental Affairs