

Comments to Yakima Basin Integrated Plan Workgroup Meeting

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The website managed by Department of Ecology and representing the YBIP Workgroup (<http://www.ecy.wa.gov/programs/wr/cwp/ybip.html>) makes several misleading and inaccurate claims concerning a study of private property valuation in the Lake Kachess area. The current website claims a “new” study has been conducted “in response to property owners’ concerns” and assesses “private property impacts”. None of these claims are correct.

The study in question was conducted by Dean Potter LLC in 2014-15 (<http://www.ecy.wa.gov/programs/wr/cwp/images/pdf/KDRPP-RealPropertyValueImpactsStudy-2015.pdf>) and can no longer be characterized as “new”.

Further, the study cannot be characterized as responsive to the concerns of property owners. The very real and substantial adverse impacts of a pumping plant and/or conveyance on private property values have been raised by citizens on numerous occasions, and have been repeatedly dismissed and ignored by YBIP representatives. A responsive study would have engaged affected citizens in identifying issues and designing a study that would objectively measure impacts. This was not done; instead, a study was conducted that is fatally flawed in design and outcome, and cannot serve a useful purpose. A summary of concerns raised by independent experts is included.

The Dean Potter LLC Study has never been placed on the Workgroup agenda to allow for public comment, and has never been submitted to external professional review. Further, it is our understanding that in an internal review, YBIP staff have determined that the study did not provide useful information for addressing private property impacts and cannot be used for that purpose. To offer the study as a useful resource on the YBIP website is misleading at best, and inaccurate at worst.

As citizens facing potentially disastrous negative private property impacts caused by the two proposed Lake Kachess projects we ask the following.

1. The accompanying statement concerning the fatal flaws of the Potter LLC Study be included in the minutes of this Workgroup Meeting, and be part of any distribution of information concerning the Potter LLC Study, including all internet or website references.
2. The misleading and inaccurate representation of the Potter LLC Study on the YBIP website must be corrected, either by totally removing the reference or by correcting the description and status of the study.
3. The affected private property owners in the Lake Kachess area be immediately engaged by YBIP in developing an objective, valid, and reliable study on the adverse impacts on private property of a pumping plant and/or conveyance project. We have previously provided YBIP staff the contact information and credentials of an internationally known expert in damage appraisal of private property impacts, Dr. William Mundy. Dr. Mundy is available for consultation and would be a valuable resource. His contact information is available upon request.

Comments on Potter LLC Study of Property Value Impacts at Lake Kachess

Prepared by and for Lake Kachess Homeowners Association

The following comments are taken from a more detailed analysis prepared by William Mundy, PhD, at the request of Lake Kachess Homeowners Association (LKHOA). Additional comments are included from professionals with expertise in law, financial analysis, property management and study design.

A. Two Fatal Flaws in the Design of the Potter LLC (PLLC) Study:

1. The “Before/After” comparison is inaccurate.

The proposed action would lower Lake Kachess an additional 80 feet from its current lowest level. The purpose of the PLLC study was to estimate the impact on the value of private property surrounding the lake from this proposed lowering. A common method used by appraisers and economists to quantify such value effects is the “before/after” method. This method quantifies values before the action and after the action. Potter used this method. Real estate transaction data is typically used. The data used must accurately reflect both the before and after condition. The potter appraisal **failed** in this critical element. The reason is simple:

- In the “before” condition, transaction data from Lake Kachess is used, which is appropriate.
- In the “after” condition, transaction data from Lake Cle Elum was used, which is NOT appropriate and renders the conclusions invalid.

Why is the comparison with Lake Cle Elum invalid? Because BOTH of the lakes suffer from the same malady. Both are currently drawn down, on a seasonal basis, to their lowest point. The transaction data from both lakes reflect the same effect, rather than a differential effect, which is the 80 feet of additional, or unusual, drawdown. What PLLC should have done was find evidence of value differences in situations where unusual drawdown has occurred, using the before/after method to quantify value differences, which then would be applied to the Lake Kachess situation. There is ample evidence of unusual drawdown value effects, for example the many lakes and reservoirs in drought-affected California (e.g., Lake Shasta). This is a fatal flaw in the PLLC study, rendering the conclusions meritless.

2. The inclusion/exclusion criterion is arbitrary and lacks evidence from practice.

The only criterion for determining eligibility for “diminished value” consideration, is an ill-defined presence or absence of “amenity view.” The definition of amenity view lacks clear guidelines in the PLLC study and is vulnerable to subjective bias. More importantly, the single inclusion/exclusion criterion ignores the recognized and substantial impact of loss of recreation opportunities, increased fire risk, potential loss of wells, community water system damage, disruption of a 5+ year construction project, and a host of other factors already acknowledged by the 2014 Draft Environmental Impact Study (DEIS) released by the Bureau of Reclamation. Potter states this as a significant limitation of the study, but then proceeds to conduct an analysis as if these limitations did not exist. The effect of this arbitrary criterion is overwhelming. For LKHOA only 28% (46 of 167) total parcels are even considered eligible for value mitigation. For Kachess Ridge Community Association less than 2% (1 of 66) occupied residences are eligible. The premise of the PLLC study is that unless one has an “amenity view” of the lake, the lake confers no value. The argument is specious, as the lake offers fishing, boating, recreation, camping, family activities, healthy lifestyle opportunities, and much more...regardless of whether a view exists. An example may illustrate this; two properties could be side-by-side, and identical in every way, except one has an amenity view and the other does not. One would be eligible for mitigation and the other would not. It is impossible to support this argument in theory, and it lacks empirical support from appraisal practice.

B. Numerous serious flaws which adversely affect the study’s credibility

The following are serious problems with the appraisal which, if not for the design fatal flaws, would have to be reconciled by revision of methodology and/or analytic technique.

1. *Transactional Data.* In using transactional data to estimate market value that data must be based on the actions of knowledgeable buyers and sellers. All of PLLC's transaction data was confirmed with intermediaries such as brokers. None of it was confirmed with buyers. In valuation situations such as this it is imperative to know what influenced the buyer to acquire the property at the price he/she paid. "To what extent was the buyer aware Lake Cle Elum would be drawn down in the summer?" is an essential question to be answered. Similarly, a valid study must determine "how did this knowledge affect their purchase decision, especially the price paid?"
2. *Drawdown Data.* PLLC contends that Lake Cle Elum is drawn down to a greater extent than Lake Kachess. There are no data to support this, and if it is drawn down, how does PLLC know this will have an adverse value impact?
3. *Rendering.* For the appraisal to have credibility the appraiser and thus the reader must have a sense of what the before and after effects of the drawdowns, both current and future, will look like. Graphics, such as a rendering, are essential.
4. *Validation.* Only one method was used to quantify the value impact. To make sure the estimate is accurate, multiple independent methods must be used. The Appraisal Institute suggests using three methods: cost, income, and market approaches. PLLC only used the market approach. There are additional methods, in addition to the cost and income approach, often used by appraisers and economists such as trade-off analysis (conjoint measurement), hedonic analysis and contingent value. At least two independent approaches should have been used, ideally three.
5. *The "matched-pair comparison"* is a recognized technique, however it is subject to bias and demands rigorous controls in analyzing data. Three types of bias must be controlled: assignment error (when placing cases into matched pairs), sampling error (to assure the two groups have sufficient "power" to be compared), and measurement error (to protect against nonrandom error in data collection). There are standard statistical safeguards to prevent introducing these biases, none of which were used by PLLC. Without these safeguards the best one can say about the study is that it introduces every possible source of analytical bias into the results; the most important thing one can say is that the results are meaningless until these biases are identified and resolved.
6. Earlier, the comparison of Lake Kachess with Lake Cle Elum was shown to be invalid. Another caveat must be noted for future purposes. *Any comparison with Lake Kachess must take into consideration the probability and duration of the lake not refilling for consecutive years.* In other words, even if all the other factors had allowed a

comparison with Lake Cle Elum, the difference in refill would still represent a major difference. Lake Kachess will not refill for 2-5 years in drought conditions, and possibly for 11 years or longer. Any comparison must have a similar profile.

C. Summary

The PLLC Study ignores numerous determinants of property valuation impact (e.g., loss of recreation, reduced lake access, community water system damage) and relies upon a design that embeds two fatal flaws and numerous serious (if not fatal) deficiencies. The result is a study that lacks validity and cannot be “fixed” using available methods. The only recourse is to start over and (1) clarify the objective(s) of the study (i.e., to identify and quantify the determinants of value impact on private property in the area of KKC/KDRPP), (2) design a study that assures validity and reliability of results, (3) collect data and conduct analyses appropriate to the study objective(s), and (4) draw only those conclusions supported by the data analysis. Because the PLLC Study has been conducted without adequate consideration of the above steps it cannot serve a useful purpose, except as an example to avoid in the future.