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Subject: Lake Roosevelt Incremental Storage Release Project
Draft Environmental Assessment
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Our review of this proposed project will offer some general comments on the entire document but will primarily focus on socioeconomic issues that will derive from the increased diversion of water for irrigation in the Odessa sub area. However, this portion of the project is apparently tied to other matters like streamflow enhancement, increased municipal diversions, and firming up interruptible irrigation water rights in the Lower Columbia River Basin.

The report is not clear about the relationship between improved Columbia River flows, especially to benefit fish, the proposed increased water supply for irrigation, and the cost and benefits of the project. The draft EA proposes diversions of 30,000AF to supply water to 7,000 to 8,000 acres that are now being irrigated with groundwater. Flow objectives are all met, changes to reservoir operations are not extreme, and the Draft EA notes generally insignificant environmental impacts. The problem is, however, that these apparent achievements are very misleading in that they are a disguise for a much larger project intended by the USBR and the state of Washington.

The March 2009 Odessa Subarea Special Study Update present two alternatives calling for much larger diversions of 202,700 and 377,700 acre feet. Moreover, the expansions and new construction is being planned with capacity to serve the entire area within the CBP that is not now being supplied with project water. Total water diversions with full intended development would substantially exceed 1 million acre feet. If the full extent of the irrigation project is achieved it is unlikely that the fish flows will be met and there will be other much greater environmental impacts.

It becomes apparent that the USBR is really treating this 30,000 AF increment of increased surface water irrigation as a foot in the door for a much larger project. That is, there is now indication of flow impacts, environmental impacts, and costs of a development that is in the neighborhood of 40 times the current proposal. This approach to planning is misleading to both the general public and policy makers in the state. Unfortunately, the State is complicit in this deception.

Another general matter that must be acknowledged is the attempted association of increased diversions for irrigation with streamflow enhancement. Any necessary or desired changes to streamflow for fish management can be accomplished without increased diversions for irrigation. Expanded irrigation is not necessary for improved flow management. All water behind Grand Coulee dam is now available for all instream uses below the dam. Shifting water flows from one part of the year to another for fish enhancement may affect reservoir levels and hydropower production, but increased irrigation diversions will not make it easier to achieve streamflow objectives. The opposite is in fact more likely to be the case. Increased diversion for irrigation will make it more difficult to achieve the desired fish flows, especially with full development and the associated substantial reduction of net annual flows from Lake Roosevelt.

We now turn to the socioeconomic impacts of increased irrigation in the Odessa region. This report provides virtually no information on this matter. Two studies (Odessa Subarea Special Study, Columbia Basin Project, Study Update, November 2007; and Odessa Subarea Special Study, Columbia Basin Project, Study Update, March 2009) report the costs for construction planned for the supply of CBP water to the Odessa area lands that are now being irrigated with groundwater. Table 1 (attached) presents a summary of the construction costs and relates costs to the acreage to be served and the acre feet of water to be diverted. For Alternative B, construction of water delivery and storage projects is projected to cost between \$2,199 million and \$4,456 million. For the 102,614 acres to be served under the current groundwater replacement phase of the project, total construction costs are expected to range from an average of \$21,430/A to \$43,425/A. If annualized over 50 years at an interest rate of 4.875%, the costs are between \$1,151 and \$2,333/acre/year.

Construction for the considerably smaller Alternative C (57,069 acres served and 202,700 acre feet diverted), requires only enlarging and extending the East Low Canal. Construction costs are much lower, ranging from \$12,230 to \$22,633 per acre. On an annualized basis, costs range from \$657/A/year to \$1,216/A/year. It is important to note that there is no possible scenario for agricultural production that could create benefits sufficient to justify either of these proposed alternatives. The benefit/cost ratio will be significantly below 1.0 in each case, a very poor use of public tax money.

Also of importance, it is stated in the 2007 report that estimated costs do not include costs for land acquisition, utility relocation, or mitigation. We would ask that project planners address these cost issues and explain who is expected to pay for them. Is it the farmer (not possible), state taxpayers (partially), PNW ratepayers (partially), or the federal taxpayer (certainly). In this time of economic stress in the nation it is poor public policy to advance projects for public expenditure that have such an inadequate benefit/cost potential.

We could find no construction cost estimates for the proposed delivery of only 30,000 acre feet, enough for 7,000 to 8,000 acres. If this water can be delivered to lands that are easily accessible to the ELC and with minimal expansion to the canal required, it

may be possible to hold the cost per acre and per acre foot fairly low. However, with such a small acreage to be served, it would be impossible to justify any of the larger features, such as the Weber siphons, without bringing hundreds of times more acres in for evaluation and cost allocation

It must be noted that the construction proposed for Alternatives B & C will provide far more capacity to deliver water than will be required for serving the lands now dependent on groundwater. This accounts in part for the high construction costs per acre of land to be served. It is planned that the excess capacity will be used eventually to supply water to other currently non-irrigated land interspersed among the lands now irrigated with groundwater.

This is a case of construction that is intended to jointly serve two phases—the current groundwater replacement development and the future development of the rest of the CBP. However, principles for project evaluation require that the cost of a joint facility be allocated separately between both uses and each must be economically feasible before the construction of the joint facility can be justified. Supply of water to those other lands has not been presented as a purpose of this project and the economic justification for completing the rest of the project has not been established.

A project assessment would accurately describe both sides of the equation and make proper comparisons for public assessment. Not only does this report hide the real costs of increased irrigation, there is no discussion of the real economic benefits from irrigation. It is apparent that the currently planned Alternatives B or C will not have benefits large enough to cover O&M costs and also both their share and the East High Project's share of construction costs. The Socioeconomics section (4.1.1.7) of the Columbia River Water Management Program Final Programmatic EIS presents estimates of the net economic return per acre foot of new irrigation water that range from a high of \$147 per acre foot diverted for irrigating potatoes to -\$34 per acre foot for wheat (Programmatic EIS, p. 4-20). Water used over a variety of crops similar to current irrigation averages in Central Washington could be expected to yield net economic returns of about \$22 per acre foot of water diverted. These expected returns to agriculture would not even cover the expected energy subsidies that will be required to irrigate this land as will be shown below.

The EIS goes on to note the concerns about new irrigation impacting the market for crops that are already grown in the state and cited two recent studies that “concluded that increasing irrigation in the project area by 1 million acre-feet would reduce the overall value of the state's agricultural output, and the statewide net economic return of increasing irrigation in the project area would be between negative \$60 and negative \$70 per acre foot.....Federal Guidelines (U.S. Water Resources Council 1983) indicate that these findings, along with the likelihood that increased production from new irrigation in the project area would lower the earnings of farmers producing the same crops in other states, diminish the likelihood that new storage projects in the project area would qualify for federal funding.” (Programmatic EIS p. 4-21)

The current proposal may avoid some of the negative market impact because it is designed to replace groundwater for already irrigated lands; however, it still will be necessary to develop new irrigation on a much larger acreage in the East High area in order to find justification for construction of a larger than needed water supply and delivery system.

Another item falling into the socioeconomic category of irrigation development is that of energy impacts. There is no discussion of hydropower loss or energy use associated with the increased diversions for irrigation in this report. This is an important topic for the region as it impacts most ratepayers in the PNW. We reference the USGAO report to Congress (Issues Concerning Expanded Irrigation in the Columbia Basin Project, Briefing Report to Congressional Requesters, January 1987) as evidence of such energy costs and the obligation to acknowledge them.

We have estimated the energy impacts of increased irrigation in the Odessa region and incorporated the estimates in Table 1. The calculations are based on previous studies related to energy lost due to reduction of volume of water flowing through downstream hydro-electric plants (1015 kWh/acre foot diverted) and to the energy requirements for pumping water to an extension of the East Low Canal (679 kWh/acre foot.) We used a low estimate for energy price of 35 mills/kWh and a higher estimate valued at 50 mills/kWh. Based on these assumptions energy impacts would be as follows:

Alternative B \$218-\$312/A./year

Alternative C \$211-\$301/A./year

There would be an energy subsidy paid by PNW residents of \$211-\$312 per acre irrigated per year. This is more than the expected net income from agriculture. For the 102,700 acres in Alternative B, the energy cost would amount to between \$22 to \$32 million per year added to regional power costs and continuing for the life of the project. This is a substantial shift of cost from the farm to the public caused by additional diversions behind Grand Coulee Dam. The equivalent capital cost at an interest rate of 4.875% would range from \$3930 to \$5810 per acre irrigated. It is the approximate cost of additional energy production facilities that would be required to replace the lost and used energy from irrigation development. That alone is more than the irrigated land is worth today. Not a good deal for the region.

We would encourage those interested in this CRI project to refer to the 1986 report to Congress as an example of how to properly consider the expected total economic costs of irrigation development. That report will also provide a guide of how such costs are likely to be distributed among farmers, ratepayers, and taxpayers.

Again, it is apparent that the proposed 30,000 AF of new diversions to the Odessa region is a prelude to plans for irrigating 50 or more times greater acreage. Only a very small part of the capacity of the two siphons constructed in the delivery system will be able to be utilized by this first increment of irrigation development. In any case, those

who propose this project must provide accurate socioeconomic data for public evaluation for both the first increment of development and the expected long run development

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