

**Schrepel, Eric**

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**From:** hajny@northcascades.net  
**Sent:** Thursday, March 14, 2002 12:58 PM  
**To:** kphillips@nwppc.org  
**Cc:** ljjohnson@wsfb.com; commissioners@co.okanogan.wa.us; morton\_bo@leg.wa.gov; Parlette, Sen. Linda Evans; sump\_ro@leg.wa.gov; mcmorris\_ca@leg.wa.gov; armstron\_mi@leg.wa.gov; B. Lawrence  
**Subject:** 29002



® Okanogan County Farm Bureau

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March 14, 2002

1014 Toroda Creek Rd.  
Wauconda, WA 98859

Northwest Power Planning Council  
851 Sixth Ave, Suite 1100  
Portland, OR 97204-1348

Re: Comment on Project #29002  
Conjunctive Use and River Enhancement (CURE) for Habitat Improvement in the  
Upper Methow River

Dear Sir or Madam:

The Okanogan County Farm Bureau opposes Project #29002, Conjunctive Use and River Enhancement (CURE) for Habitat Improvement in the Upper Methow River. As pointed out in the attached Project Evaluation, "...there are more unanswered questions and insecure benefits from the CURE project than it proposes to solve."

Please review the concerns of the Okanogan County Farm Bureau as outlined in the attached Project Evaluation.

Thank you.

Sincerely,

Joel Kretz, President

Ray Campbell, Chair  
Water Committee

Attachment

3/22/2002

Cc: Washington State Farm Bureau  
Washington State Legislators, 7<sup>th</sup> and 12<sup>th</sup> Districts  
Okanogan County Commissioners  
Okanogan County Citizens Coalition  
Okanogan County Assessor's Office  
Okanogan County Planning Department  
Methow Watershed Planning Unit (WRIA 48)

**PROJECT EVALUTION FOR ID# 29002**

Conjunctive Use and River Enhancement for Habitat Improvement in the Upper Methow River  
Prepared by Dick Ewing  
March 11, 2002

**KEY POINTS:**

The proposed project will establish up to five wells at 5cfs capacity somewhere between Goat Creek and the Weeman Bridge for the purpose of increasing stream flows by 20 cfs between August and October. It is not specified whether or not the location of the proposed wells will be spaced between Goat Creek and the Weeman Bridge in order to augment stream flows incrementally, or just above the Weeman Bridge. Figure 4 suggests that the well field will be at the Weeman Bridge. This would mean that Methow flows would be increased below the Weeman Bridge, not above where the Methow does go dry periodically. The purpose of the increased stream flow is to provide water downstream for a proposed pump site in the Methow River near Winthrop. Water would be pumped to one of three sites: Pearrygin Lake, Chewuch ditch or the Chewuch ditch head gate. This water would then be used to provide irrigation water on the lower reaches of the Chewuch and Fulton Ditches. This would enable the Chewuch Ditch Company to decrease its diverted amount and the Fulton to shut down entirely. In return for these measures Skyline Ditch Company could operate and more water would be available for fish habitat in the lower Chewuch.

**DISCUSSION OF PROBLEMS ASSOCIATED WITH THE PROJECT:**

The first problem observed is that there is no clear description of where the well field will be constructed and the exact stretches of the Methow River that will benefit from the increased stream flow. If the stretch between the Tauwks-Foster Bridge and the Weeman Bridge is envisioned, it has not been made clear how the added water will stay in the stream channel as surface flow rather than going under ground and merging with the static level of the Methow River in late summer and early fall. If the water is pumped into the Methow River below the Weeman Bridge, this section of the Methow River is a gaining reach, presumably from the ground water outflow from the water stored behind the Boesel fault. <sup>[1]</sup> The benefits for this section of the Methow are not clear.

The second problem relates to the effect withdrawing ground water will have in two areas. The first is the effect on the water availability above RM 60, called the Upper Methow in WRIA 48. 2 cfs has been allocated for future development. At present, water for domestic wells is counted on the demand level of 5000 gallons per day by the DOE. This means about 289 more homes can be built in that area since 1976. At present there are 1,700 building sites. <sup>[2]</sup> If the 20 cfs per day were used for the potential 60 days in a dry year, the amount of water used is almost twice the domestic limitation. There has already been considerable controversy over allowing development and increasing the 2 cfs limitation in the Upper Methow because of fish habitat issues. It is not clear that this well field won't raise the same issues. The second is what effect will this withdrawal have on the groundwater now available to

the gaining reach below the Weeman Bridge that is not currently affected by low water like the reach above the Weeman Bridge. This area always has a large number of redds.

It is not clear how this increased instream flows from the well field will benefit the upper Methow habitat when this increase is contributed in August and September. If the Upper Methow goes dry above the Weeman Bridge or at best very low water exists in the fall and winter, it doesn't make sense to increase this flow in the fall when it will only drop again by late winter. One of the key limiting

factors in the Methow basin is low winter stream flows coupled with extreme cold and anchor ice. Furthermore it doesn't make sense to encourage fish to use and spawn in these low water areas if the redds face the high winter mortality due to low water and the cold climate. If water is pumped during the winter months in an attempt to keep these redds alive it is not clear that the 20 cfs will be adequate to offset the low flow. Added pumping for winter months is not discussed in light of the potential development issues discussed above. Nor is this possibility discussed in the proposal.

The mentioned instream benefits for the Methow and the flow augmentation are factors that are being used to offset the planned proposal to pump 25 cfs from the Methow River at Winthrop for the Fulton and Chewuch irrigation canals. This arrangement supposedly provides more water to the Chewuch during low flows. However, the situation created by the NMFS Biological Opinion is a false one to begin with. Everyone who has looked at the USGS stream flow data knows that 425 cfs from May 1 to July 16, and 161 cfs from September 16 to 30 have only been met three out of 10 years. Even at 50% exceedence, water can be diverted only part of the season. Setting these flows was a political move to create hardship on non-section 7 ditches to gain their political concessions. One should be cautious and realize that political science never leads to good science.

It is also questionable that the diversions at their current level on the Chewuch River are detrimental to fish. The Skyline Biological Opinion notes that the diverted amount is 91.2 cfs. While this is likely in the spring, the actual amount by the low flow period in late summer and early fall is 77.7 cfs. if Skyline were operational. According to Golder Associates, when the ditches are shut off, about 30 cfs shows up at the USGS gauge, which shows a lesser impact on stream flows than claimed. This also shows that the claimed transportation loss of an average 45% is returning to stream surface flows as ground water. The full operation of Skyline Ditch may be providing the ground water influence that offsets the operation of the Chewuch and Fulton ditches which transport water to the Methow reach. Stream flow temperatures in the reach above the diversion show a mean monthly summer time

temperature of 12.6°C compared to 13.0°C below the two upper diversions . This shows that the temperature gradient in the Chewuch is due to its west-south aspect rather than removal of water from the river. Also the ground water from the canals may be providing a mitigating effect on temperature. It is quite clear that returning ground water in the Methow Basin often provides cool water refuges as a key habitat component for fish. Observations such as these form the bases for the statement: "Irrigation, at least at current levels in the Methow River basin, may be more beneficial than detrimental to salmonid

habitat because of its positive influence on groundwater."

The Mullan report also contains the following observation: "Mullan et al. (1992b) estimated that annual depletion in river discharge from irrigation varies from 28% to 79% August to October depending on reach and return flow. If recharge from irrigation is insignificant then the relationship of low flow to mean annual flow should be noticeably different for irrigated versus non-irrigated streams. Yet the long-term, 7-day average low flow, with a two-year recurrence interval, was 17% of the average annual flow in irrigated streams compared to 16% in non-irrigated streams (from Table 23, Mullan et al.1992b). This suggests that there is no net loss of water diverted for irrigation. Apparently water lost

to crop uptake and evapotranspiration is fully offset by recharge."

It has not been shown that increasing the Chewuch stream flows by the potential 30 cfs will increase the habitat component for listed fish. Even with the diversions, the Chewuch basin still is within the natural proper functioning conditions for that drainage. The arguments that were used to

defend the Arrowleaf acquisition, claiming that a dry riverbed is good habitat, apply even more realistically to the Chewuch. Dewatering is a natural historical process in the Methow such that fish naturally live most of their lives in a low water environment. Thus they have adapted. Because of this, as well as stream structure, most of the spawning occurs above the diversions. The fish use the lower

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reach for passage and rearing. But the fish, as Jeff Koenings remarks, know when to move on. Rather than attributing the down migration of Chinook from the upper tributaries to the mainstem as a result of diversions or lack of LWD, as many do, it may be better to realize that this is due to seasonal changes where fish are adapted to seeking a better survival habitat for the winter months related to warmer groundwater inflow. "This biological advantage of warmer water is qualitative, then, not solely quantitative contrary to Bambrick (1996). Though some have attributed the downriver migration of chinook salmon parr to the lack of LWD, more likely the fish are transitioning from summer habitats of LWD and side-channels for a habitat featuring rocks and groundwater upwelling-safeguards against

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freezing, ice flooding and predation." Even in this low water year with Carson fish that supposedly don't know how to spawn the Yakama redd count shows 1037 redds for the Chewuch.

Other improvements of the Chewuch and Skyline ditches that include piping, especially the possibility of piping the length of the Skyline ditch, may have effects on water availability for domestic wells. The Bureau of Reclamation raises several points related to efficiency measures: 1) alternatives (which use piping or ditch lining) will cause loss of vegetation along existing canals with potential loss of riparian habitat and 2) No impact considerations have been made concerning the continuity of

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reduction of ground water seepage losses from the canals due to lining or piping. In addition the Bureau of Reclamation makes the following set of observations:

*The occurrence, movement and availability of ground water in any aquifer are primarily related to the source of recharge and the nature of the aquifer. A heterogeneous hydrogeologic environment exists in the Chewuch river valley and the Methow River valley just below Winthrop due to: 1) the highly variable depth to bedrock; 2) the variability in gradation, both laterally and vertically of glacially deposited materials in the aquifer. The behavior of the aquifer in the Chewuch and Methow River valley is influenced by the specific site characteristics and is unpredictable without further detailed site investigations. In addition, the relationship between river levels, ground water levels and seasonal water level fluctuations has not been studied in the*

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*reaches of the Methow River below Winthrop or along the Chewuch.*

While this statement applies to the feasibility of wells to replace diverted sources, it shows that understanding is lacking concerning the removal of unlined surface irrigation canals. These are important points, even though they are not part of the CURE proposal because the CURE proposal is part of a package including these mentioned efficiencies that must work together.

In summary there are more unanswered questions and insecure benefits from the CURE project than it proposes to solve. In fact with the present information available the CURE project will cause more problems than allowing the diversions in their present state to operate on the Chewuch. Rather than a simple low cost gravity system in a symbiotic relationship to the Chewuch environment, major environmental components in the Methow are rearranged for an unknown benefit. Then there is the added increased cost of two pumping sites that will be born more than likely by BPA because these costs will be outside the scope that Methow residents can afford. Lastly, decisions being made affect more than the issues of fish and allowing irrigators to rightfully use their water. The choices being made will also affect water availability for future development. Consequently what is being proposed is a larger planning issue that is better coordinated and addressed within the context of the Washington State Watershed Planning Process under RCW 90.82.

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[1] USGS Study Numbers 442 and 445, October 30, 2001

- [\[2\]](#) PUD survey made public by Okanogan County Electric Coop.
- [\[3\]](#) Limiting Factors Analysis, Executive Summary, p. 11.
- [\[4\]](#) James W. Mullan, *et. al.*: *Production and Habitat of Salmonids in Mid-Columbia river Tributary Streams*, p. I-327, USFW 1992.
- [\[5\]](#) James Mullan, *et. al.*; *Ibid.* p. vii
- [\[6\]](#) Ken Williams, *Irrigation*, p. 8
- [\[7\]](#) Jeff Koenings, *Letter to Frank Cassidy*, November 30, 2001
- [\[8\]](#) Ken Williams, *Ibid.*, p. 10.
- [\[9\]](#) Bureau of Reclamation: Methow Valley Water Planning Pilot Project, Skyline and Fulton Canals Irrigation Alternatives Engineering Report, p.9 1993
- [\[10\]](#) Bureau of Reclamation; Hydrogeology Report Methow Valley Water Planning pilot Project Washington, pp. 2-3, Geology Branch, October, 1993.