## Robert Vadas, Jr.

FYI for the modified-Hirst rule, including this quote from the WAC-173-566:

"Puget Sound action agenda. Ecology may not fund projects designed to address the restoration of Puget Sound that are in conflict with the action agenda developed by the Puget Sound partnership under RCW 90.71.310."

Chinook, being large-bodied, need relatively more flow for reproductive (including adult inmigration/spawning/incubation) and rearing (including adult holding in pools) than other Pacific salmonids (Beecher 1990; Caldwell and Atterson 1992; Vadas 2000, 2003; May and Peterson 2003; Kohr 2011), so out-of-kind (non-flow) mitigation might not always adequately counteract human-development projects. This is certainly relevant to Southern Resident orca recovery. But larger streams need relatively less flow to satisfy the spawning needs of Pacific salmonids (Beecher 1990; Vadas 2000), so strong consideration of the optimal (maximum-habitat) flow needs of Chinook will be required for the Hirst-mitigation process.

-Bob Vadas, Jr. Aquatic ecologist, Ph.D.

References

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