

## **Emerald PUD's comments on survival measurements of Salmon Smolt comparing the Snake-Columbia River system to the Thompson-Fraser River system**

A recently released study comparing the survival of salmon smolt on two vastly different and diverse river systems raises as many eyebrows as it does new questions. The comparison of the Snake-Columbia River system with multiple hydroelectric dams, versus the Thompson-Fraser River system that is dam free and un-impeded, show results of same species downstream migration with almost identical numbers. This result surprises almost everyone.

### **The Study**

The study was completed by several different experts with diverse backgrounds and was funded by both government and private sources. This, we believe, gives the results credibility, although only for a single complete season. The combination of the varied individuals taking part in the study along with the funding being not of a single source leads us to believe the results are impartial and not driven by political beliefs or the winds of partisanship.

### **The Implications**

This study examines one phase of the lifecycle of Columbia River and Fraser River salmon stocks. Although these results show that salmon smolt of a like species survive the downstream migration in equal numbers on the Snake-Columbia River system (with 8 dams and a total river run of 516 km [about 320 miles]) versus the Thompson-Fraser River system (un-impeded and a total river run of 340 km [about 211 miles]), it does not specifically state that the hydroelectric dams have no impact on migrating smolt. It does imply that there is much more to be learned about smolt migration and survival. This gives pause to make decisions on hydroelectric dams based on their influence on fish and their ability to recover in acceptable numbers of returning adults. Said another way, we need to be careful not to incur unintended consequences when the fate of dams is in question. We need more and longer-term studies that all parties can put stock in. Studies that give us a more complete picture of looking at and tying together the vast array of issues that affect the fish we all want in our rivers.

### **What we need**

We need well-funded and ongoing studies that will allow policymakers to have accurate information based in science, not emotion, or leaning toward a single point advocacy. The funding for these studies should not hold a "stake" in the results. Diversity here and in the people doing the studies would again be helpful. Findings that look at river and estuary predation as well as ocean impacts of multinational fleet fishing, ocean predation and cyclical ocean influences over multiple years.

## **Conclusions**

The huge amount of ratepayer dollars that have been invested in programs and policies to improve salmon and other species survival may well have had a positive impact on fish and other species in the Snake-Columbia River system that we have not recognized till now. A political environment that will favor a cap & trade program to reduce greenhouse gases will bring with it unknown cost escalations increasing utility bills to everyone. A study showing the Snake-Columbia River system running neck & neck with the un-impeded Thompson-Fraser River system for salmon smolt survivability gives hope to the issue of being able to continue supplying the region and our customers with a carbon free, green, renewable and cost effective power source for many years to come. Emerald applauds what we believe to be the non-bias methods used in this study and the equally well done and studied conclusions that came from it.