

Being part of the WA-BC American Fisheries Society meeting this past spring, I was among many scientists who voted for the long-overdue resolution to criticize Victoria's ocean disposal of sewage (see <http://www.wabc-afs.org/about-us/resolutions>). Canadian scientists Shaun Peck and David Anderson subsequently criticized this resolution in harsh terms, claiming that irrationality and special interests overcame us in Shelton, WA. Nothing could be further from the truth. I should note that I have (a) lived and worked in western Canada and (b) fished in eastern Canada for several years each, and still regularly visit and spend money in the Lower Mainland, BC.

These Canadian scientists don't like us (Americans) criticizing their province's operations, which also include Vancouver's sewage disposal, Nechako River dam operations, and Atlantic salmon aquaculture. But as aptly emphasized in a prominent Canadian scientific journal over a decade ago, the use of independent auditors, risk analysis, and adaptive (experimental) management are needed to benefit fisheries there, to counteract the government bullying that has caused fisheries collapses (Doubleday et al. 1997; Healey 1997; Hutchings et al. 1997a,b). Hence, we need a pluralistic approach that breaks away from the status quo, to better solve scientific and management problems (Vadas 1994). Therefore, I'd like to see Peck and Anderson come up with their own rational solutions for the Victoria-sewage problem, rather than try to whisk it under the proverbial rug.

In particular, I criticize these assertions of Dr. Peck:

1. I see too much quibbling over the terms "toxin" vs. "contaminant" and "dump" vs. "discharge". We don't need wordsmithing here, as this isn't merely a semantic argument. Indeed, the Salish Sea ecosystem has severe pollution problems that has recently impelled Washington state to form the Puget Sound Partnership to better deal with stormwater and other pollution problems that are especially severe in Hood Canal (where hypoxia has continually led to shell- and groundfish kills in recent years). Moreover, "dead zones" have also been found off the Oregon coast, not to mention the central Gulf of Mexico (via Mississippi River basin farming) and other saltwater ecosystems of the world. Hence, the paradigm that "dilution is the solution to pollution" is no longer applicable to either fresh- or saltwater ecosystems, even though Victoria sewage is discharged into deeper waters. Although juvenile salmonids especially rear in- and nearshore, offshore waters become more important as they grow older.
2. While this sewage discharge may not be truly "raw", it nevertheless is undertreated to save money. The argument that the saved money may be better spent elsewhere is a red herring, as British Columbia has chosen a high-immigration policy that is especially impacting terrestrial and aquatic habitats in the Lower Mainland. This pro-business stance has taken precedence over the BC Environment's budget, which shows a major deficit right now. Hence, this province's priorities are misguided and unsustainable, which is likely to cause a major political shift in the next election (in which the New Democrats are likely to take over from the so-called Liberals).
3. While it's true that laboratory-toxicity tests often don't allow avoidance by test fish, it's also true that this is just one tool to examine pollution impacts. And such tests typically examine only single, acute impacts, not chronic, cumulative impacts from multiple contaminants. Hence, such tests likely underestimate aquatic-pollution impacts, especially when tolerant species like fathead minnows or semi-tolerant species like rainbow trout are used. But consideration of field data, in particular the "dead zones" discussed above, make it clear that Victoria's sewage problem should be dealt with better for the benefit of both Canadians and Americans that depend on the Salish Sea ecosystem. Indeed, shellfishery closures are common along Puget Sound because of sewage (stormwater/septic system) impacts, and the recent American listing of orca whales and anadromous salmonids (most recently steelhead trout) in this ecosystem begs for a change to the status quo.

4. So what we need on this issue is international cooperation, not petty infighting. Both Canadian and American fisheries scientists at the Shelton meeting voted to criticize the antiquated sewage-disposal system of Victoria. We hope that this independent evaluation will lead to changes that promote tourism to Victoria. Indeed, a big reason that I've visited this city only once is because of my deep concern (protest) about pollution there.

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References

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