



THE OSPREY

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Federation of Fly Fishers



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Solving the Klamath River Crisis

Two viewpoints on the Klamath Basin Restoration Agreement

Recently, a plan called the Klamath Basin Restoration Agreement, was developed by a number of groups and stakeholders in the Klamath River Basin. Supporters of the agreement argue that it is a key step to removing the four fish-blocking dams on the river while opponents argue it ignores water management in the upper basin, critical to both fish and wildlife. We asked S. Craig Tucker, Klamath Campaign Manager for the Karuk Tribe of California, and Steve Pedery, Conservation Director for Oregon Wild, to give us their opposing viewpoints.

Fish and Farms are the Solution, not the Problem

by S. Craig Tucker
— Karuk Tribe of California —

The Karuk are one of several Klamath River Tribes often referred to as “fix the world people.” That’s because their annual ceremonies are necessary to keep the world in balance, to make sure that all the natural processes necessary for life on earth continue. The ceremonies are performed out of a sense of responsibility — a responsibility given to the Tribe by the Creator at the beginning of time.

The Karuk Tribe’s responsibility to serve as ‘fix the world’ people is not limited to performing an annual ceremony. The ‘fix the world’ directive means taking leadership in the development of good science and working for sound political policies at the local, state, and federal levels. It is why the Karuk Tribe participated in the development of the Klamath Basin Restoration Agreement (KBRA) and supports its implementation.

Although there are many factors to blame for the collapse

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Settlement Lets Irrigators off the Hook

by Steve Pedery
— Oregon Wild —

One hundred and fifty years ago early settlers in the Klamath Basin were met by a vast expanse of wetlands, shallow lakes and marshes; they fished a roaring, salmon rich river winding through hundreds of miles of western countryside; they were amazed by the spectacular migrations of geese, eagles, and other birds. Half a century ago, during the peak of fall migration, over 7 million waterfowl and 1,000 overwintering bald eagles could be found in the Klamath Basin at one time.

Home to invaluable wildlife species and a remarkable landscape, the basin drew the attention of conservationists from across the nation, including President Theodore Roosevelt. In 1908 President Roosevelt designated 81,000 acres of marsh and open water in Lower Klamath Lake as the first National Wildlife Refuge for waterfowl. Twenty years later, Tule Lake joined the refuge system when

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FROM THE PERCH — EDITOR'S MESSAGE


Klamath Basin Solutions?

by Jim Yuskavitch

It's been seven years since the Klamath Basin water crisis erupted as conservationists and farmers squared off in a contest that came close to violence at times as the former demanded that salmon and other fish and wildlife species receive the water they needed during drought conditions while the latter dug in their heels, insisting that their irrigation ditches remain full. Since then, numerous efforts have been made to solve the water issue to everyone's satisfaction with not a great deal of success.

But when the four dams on the mainstem Klamath River, owned by Pacificorp, came up for relicensing, some saw an opportunity to use that process to force the energy company to remove the dams and once again allow salmon into the basin's upper reaches, so they launched a negotiation process. Others felt that this negotiated approach was allowing upriver irrigators to continue to divert too much water from the river system so they dropped out of the settlement process.

For this issue's cover story, we invited Steve Pedery of Oregon Wild and Craig Tucker of the Karuk Tribe of California to make their cases for and against a collaborative settlement called the Klamath Basin Restoration Agreement.

It's a complex issue and once you've read the two opinions, we'd like to hear your thoughts. 

Letters to the Editor

Preserve Fishing Opportunity

Dear Editor:

The term "refuge" used to have positive connotations for sportsmen, at least until biologists started managing the National Wildlife Refuge system to minimize take and consequently hunter opportunity. Now the State of California defines a Marine Refuge as a no take area in perpetuity. Funded by ecological bullies like the Packard Foundation, the state is vigorously pursuing a process that will result in total fishing closures to 10 percent of coastal waters. Unfortunately, in the name of maximizing biodiversity gains, these closures have been placed on the best remaining habitat, taking a disproportionate percentage out of the public's use as a source of food and/or enjoyment. Meanwhile, California has returned to a system of water distribution that has resulted in the collapse of the Central Valley salmon resource, a prime source of ocean angling.

And that's where I take exception to the fine articles in your May issue of *The Osprey*. Quality habitat that maintains the life history of salmon and steelhead is in short supply. Main stem closures would simply put a burden on those who have not caused the problem in the first place. Less take is certainly a good option. No opportunity at all is abhorrent.

Rich Holland
Editor
Western Outdoors

Great Conservation Publication

Dear Editor:

Thank you for all your hard work. *The Osprey* is truly one of the great conservation publications.

Marianne Mitchell
Wild Steelhead Coalition
Kirkland, Wash.

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THE OSPREY



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Submissions may be made electronically or by mail.

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The Federation of Fly Fishers (FFF) supports conservation of all fish in all waters. FFF has a long standing commitment to solving fisheries problems at the grass roots. By charter and inclination, FFF is organized from the bottom up; each of its 360+ clubs, all over North America and the world, is a unique and self-directed group. The grass roots focus reflects the reality that most fisheries solutions must come at that local level.





Concerns over Columbia Hydro Tribal Deal

by Bill Redman

— Steelhead Committee —

In the last issue of *The Osprey* (May 2008), we commented on the ten year agreement signed in May between the three federal agencies charged with managing the Columbia River hydro system and three of the four Lower Columbia Tribes (Umatilla, Warm Springs, and Yakama). In the agreement the tribes are to receive about three-fourths of a billion dollars over the next decade to fund a variety of hatchery and tributary habitat projects. In return the tribes will suspend for ten years their legal efforts to make the Biological Opinion (recovery plan) for Columbia system ESA listed salmon and steelhead more fish friendly.

Our concerns then were that the agreement does next to nothing to improve salmon passage through the hydro system and depends even more heavily than it does now on potentially harmful increases in hatchery production.

There wasn't much detail available then, but since that time I have read the agreement. It confirms my earlier fears that the hatchery projects are largely anti-science, and the mainstem passage provisions are equivalent to the feds giving the "sleeves out of their vest," no better than the illegal 2004 Biological Opinion.

In Section III.B.1, Funding for Hatchery Actions, the first general principle states: "The Action Agencies and the Tribes recognize that hatcheries can provide important benefits to ESA-listed species and to the Tribes in support of their treaty fishing rights." This principle makes no mention of the harm that has been done to wild stocks over more than 50 years by indiscriminate hatchery stocking, nor does it acknowledge that fishery benefits are invariably short term in duration and decline over time as the ill effects of hatcheries on wild stocks build. There seems to be almost blind faith that hatcheries can aid in salmon

recovery, especially when in-basin, wild fish are used as broodstock. The results of longer term use of in-basin broodstocks thus far are not encouraging.

The only acknowledgement in the agreement that hatchery projects might harm wild stocks is a notation in Section III.C.4 to, "obtain a NOAA determination that the hatchery project will not impede and where possible will contribute to recovery..." Given the current posture of NOAA on hatcheries, that statement offers little comfort.

There seems to be a blind fath that hatcheries can aid in salmon recovery, especially when wild broodstock are used.

Among the hatchery projects listed are expansion of existing hatcheries and construction of new ones, more collection and use of local wild broodstocks, construction of "semi-natural" acclimation sites, and kelt reconditioning in various Washington and Oregon watersheds.

We learn more by reviewing the Yakama Nation's plan for one river, the Klickitat in southcentral Washington, which was approved by the Northwest Power and Conservation Council in August.

The Klickitat has only one Columbia mainstem dam between its mouth and tidewater. It has reasonably good habitat through much of its length and a good stock of wild steelhead. In short it would be an excellent candidate, maybe the best in interior Washington,

to set aside as a wild steelhead management zone or as a "wild stock gene bank," as called for in the Washington Fish and Wildlife Department's Statewide Steelhead Management Plan.

The Yakama Nation's plan would spend about \$27 million of the agreement's government money for improvements to the existing Klickitat Hatchery and another as yet unfunded \$10 million to build a new hatchery at Wahkiacus, 25 miles downstream from the Klickitat Hatchery. The plan is to increase Klickitat Hatchery production of the species native to the basin, spring Chinook from 600,000 to 800,000 smolts and steelhead from 85,000 to 130,000 smolts per year. Coho production would be eliminated at Klickitat and moved to Wahkiacus and half of the fall Chinook production would be moved to Wahkiacus. Neither coho nor fall Chinook are believed to be native to the basin.

The intent of all this is to reserve more of the middle and upper river for the native steelhead and spring Chinook and concentrate the non-native coho and fall Chinook in the lower river, creating a segregated fishery for the non-native fish from Wahkiacus downstream.

This plan raises a number of questions about the effects of these hatchery plans on the wild native stocks of steelhead and spring Chinook, among them the following:

1. Why not go all the way rather than part way and eliminate all hatchery coho and fall Chinook stocking from the river, reserving the entire river to allow the steelhead and spring Chinook that have evolved to fit this watershed over many generations to prosper?

2. Specifically, how will the genetic integrity and fitness of the native stocks be monitored and managed to ensure they won't be impacted by the



Fish and Farms

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of the Klamath salmon fishery, almost everyone agrees that fundamentally, reduced river flows and loss of habitat due to the construction of dams are the key factors. Both of these issues are addressed by the proposed KBRA.

Fish grow where water flows

Obviously fish need water. The debate on the Klamath has been how much and when. With the ESA listing of coho salmon in 1997, the flow issue became the focal point for scientific and political debate on the Klamath. Klamath River flows are predominately controlled by the Bureau of Reclamation's Klamath Irrigation Project (KIP). The KIP provides irrigation diversions to about 220,000 acres of farmland, which represents about one-third of the irrigated farmland in the entire Klamath Basin. The Bureau controls how much water is diverted to farmers and how much is left in the river for salmon, suckers, and other aquatic species. The 1997 ESA listing meant that the Bureau had to establish and adhere to a minimal in-stream flow requirement to protect the listed species.

Prior to the ESA listing of coho, the Bureau provided irrigation diversions as they were needed. In other words, there were no limits to how much water farmers could use, they irrigated until they were done. When the project was built at the turn of the last century, little was known about the needs of salmon, the rights of Native People were largely ignored, and little forethought was given to the ecological consequences of such a large irrigation project being built in a relatively fragile ecosystem.

For farmers, the consequences were not realized until a hundred years after the project was built. In 2001, the basin was locked in a drought, and due to the in-stream flow requirements stemming from the ESA listing of coho salmon and lost river and shortnose suckers in the Upper Basin lakes, irrigation diversions were curtailed for the first time in the KIP's history. Farmers felt cheated. These farms were homesteaded by veterans of World Wars I and II and they argued that the United States

government had guaranteed irrigation water for their farms. Emotion ruled the day as farmers rejected the notion that people downstream — namely Tribes and commercial fishermen — depended on the water too. In a stunning act of civil disobedience, activists mounted on horseback broke into a federal irrigation facility and turned on the water as federal marshals looked on and took no action.

Their efforts were too little too late to save the farmers' crops in 2001; however, it generated significant political pressure. In 2002, the basin was still in a drought condition. But in a controversial decision, the Bureau reversed its previous stance on the

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water needs of fish and provided full deliveries to the KIP. That fall, an estimated 68,000 adult salmon died in the lower River before reaching their spawning grounds. This time the Tribes and fishermen took to the streets, demanding that the Bureau provide water for fish and that the United States government fulfill its commitments to Tribes and commercial fishermen.

The events of 2001 and 2002 created veritable civil war in the Klamath Basin. Farmers, Indians, fishermen, and environmentalists pointed fingers, filed lawsuits, and hurled insults. As tensions mounted, local leaders had to make valiant efforts to limit incidents of actual physical violence.

In the wake of these events there remain hundreds of water rights claims still adjudicated. Tribes and environmentalists filed several lawsuits that failed to resolve the issue. Almost every year since 2001, one or another affected party has successfully appealed to the federal government

for millions of dollars in disaster relief. As we head into 2009 the fight over the next court ordered Biological Opinion which governs in stream flows is brewing.

In other words, nearly a decade of brass knuckled fighting in the political, legal, and media arenas has failed to solve what many now refer to as the "Rotating Klamath Crisis." One year irrigation water is shut off, in other years commercial fishermen are not allowed to fish, and in many years the basin's Native People are denied access to fish and clean water. Every year someone suffers — with one exception.

The rotating crisis never affects one party — dam owner PacifiCorp. While Klamath communities have been busy fighting one another tooth and nail, PacifiCorp and its parent companies have been laughing quietly all the way to the bank.

The opportunity afforded by dam relicensing

Starting around 2003, a new regulatory process began in the Klamath — the federally mandated relicensing of PacifiCorp's Klamath Dams. Although fish advocates have known for years that the dams are a major factor in the decline of salmon, everyone has been too busy fighting with the Bureau and Upper Basin farmers over flows to do anything about them. However, with the expiration of the dams' operational license in 2004, a once-in-a-lifetime opportunity presented itself. Dam licenses can last as long as 50 years, so engaging in the decision on whether or not to relicense the dams and under what conditions became a top priority for all the major stakeholders in the Basin.

At the same time two other key events were underway. First, a series of community meetings facilitated by former U.S. Forest Service forest supervisor Bob Chadwick were beginning. These 'Chadwick Sessions' as they came to be known were very important. Chadwick had an uncanny ability to get people to stop yelling at one another and to start listening instead. All of a sudden the people who lived in the Basin's diverse communities started to realize that they had

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more in common than they ever realized. Whether they were Indian, farmer, fisherman, or simply a resident in one of the basin's many small towns, each shared the common values of hard work, family first, and an appreciation of the unique small town lifestyle that is possible only in the rural West.

The other key event was the launch of a new campaign by the Klamath Basin Tribes, Friends of the River, and the Pacific Coast Federation of Fisherman's Associations. These groups all saw the removal of the lower four dams as a prerequisite for the recovery of Klamath River fisheries. They understood that regulatory agencies have never before ordered a dam removal and therefore the coalition decided to target the dam owner directly. In 2004, the campaign's kick-off event was a trip to Scotland to crash the shareholders' meeting of PacifiCorp's parent company, Scottish Power. It not only made international headlines, it reframed the Klamath debate. All of a sudden people were not talking about the fight between Indians and farmers; instead they were talking about the exploitation of rural communities by multinational energy companies.

In response to the pressure tactics of the Tribes and their allies, PacifiCorp initiated settlement negotiations to determine the fate of the dams. Here was the forum that would test Basin leaders' ability to parley their new found working dynamic into meaningful policy solutions. Parties to the settlement included all of the Basin's key stakeholders — Tribes, farmers, conservation groups, and local, state and federal governments.

Dam removal clearly provided benefit to the fishery, but what was the farmers' interest in dam removal? Two key facts that allowed the dam removal discussion to even begin with the farmers were: 1) the lower four dams that the Tribes and their allies targeted for removal did not provide for any irrigation diversions and; 2) the low cost power contract the farmers had with PacifiCorp expired at the same time the dam license expired, and PacifiCorp had no intent to continue to provide them with cheap power. This was a disaster from the farmers'

perspective as the project requires a great deal of pumping to work efficiently. PacifiCorp's decision to not renew the 100 year old power contract meant that their power rates would increase by over 1,000 percent.

Also, a real concern for the farmers was what the return of salmon to the upper basin, especially ESA-listed coho, would mean for them. For farmers, dam removal and reintroduction of fish sounded like an invitation for more regulatory burdens and federal oversight of their operations. The Tribal delegation asked the farmers point blank, "what do you need in order to support dam removal?" They responded with three things: 1) an

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assurance of dependable irrigation flows; 2) an assurance that reintroduction of fish would not mean more regulatory burdens for them; and 3) affordable power rates.

For the next two years the settlement group — led by the policy and technical teams from the Karuk, Yurok, and Klamath Tribes — worked to address the irrigators' concerns and developed a plan to accommodate their needs while ensuring that fish had what they needed, water and habitat.

Critics emerge

While most of the Settlement Group's efforts were focused on how to restore salmon in a manner that farmers could support, a few groups came to the table with a different agenda. Some sought to hijack the settlement process and instead forward their own organizational agendas.

The Klamath Settlement Group formed around the notion that a broadly supported dam removal agreement

could be reached. However, others focused on other controversial issues, such as the practice of lease land farming on the Klamath Wildlife Refuges.

A significant environmental issue in itself, Oregon environmental groups have fought for years to end farming on approximately 22,000 acres of land leased from the federal government that is otherwise managed as a wildlife refuge predominately for the benefit of waterfowl. Some argue that farming has no place in the refuges at all while others argue that farming is compatible with the goal of providing habitat for migratory birds.

Two Oregon-based environmental groups, Oregon Wild and WaterWatch of Oregon, demanded that farmers give up these 22,000 acres, which are some of the most productive land in the entire irrigation project. The farmers felt they had already compromised enough and for groups to ask for the surrender of their most productive lands was simply asking too much. The farmers threatened to walk out of the negotiations.

Most groups simply felt that this was not the appropriate venue for such a debate and that the issue did not warrant risking a restoration effort of epic proportions, which enjoyed bipartisan political support. No one other than Oregon Wild and WaterWatch supported their position on the refuge issue. Despite the lack of support for their position, these groups refused to let negotiations proceed. This effectively led to the dissolution of the settlement talks. However, hours after negotiations collapsed, the Karuk Tribe, Yurok Tribe, and Klamath Project Water Users reconstituted the settlement talks — this time without Oregon Wild and WaterWatch.

Where are we now

In January of 2008, the Klamath Settlement Group released the proposed Klamath Basin Restoration Agreement (KBRA). It represents a nearly comprehensive blueprint for solving the Klamath Crisis in a manner consistent with the needs of the Basin's diverse communities. However, one key component is missing — a dam removal agreement with PacifiCorp.

Just as the removal of the lower four

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An angler battles a steelhead on the Klamath River, immediately below Iron Gate Dam. Photograph by Jim Yuskavitch.

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Klamath dams is a prerequisite for the restoration of the Klamath fishery, removal is also a prerequisite for the implementation of the KBRA. For the past several months, groups have focused their efforts on convincing PacifiCorp to work with them on negotiating terms of a dam removal agreement. For the most part PacifiCorp has been defiant, although the company has been willing to have closed door negotiations with state and federal officials. The company's handling of the issue has no doubt been influenced by a change in ownership. In the midst of these negotiations PacifiCorp was purchased by Mid American Energy, which is owned by Warren Buffett's Berkshire Hathaway Corporation.

With the world's richest man at the helm of PacifiCorp, it is more important than ever that Basin communities work together in a unified front to challenge PacifiCorp's dominion over basin resources. For too long, PacifiCorp has exploited the Klamath and extracted its wealth. Groups continue to pressure PacifiCorp into capitulation through lawsuits, protests, ratepayer education and shareholder advocacy. Armed with economic studies from FERC and the California Energy Commission, which show dam removal to be cheaper than relicensing, groups have a real opportunity to pull off the

biggest river restoration effort in history. The development of the KBRA and consequent support of the Klamath Project Irrigators for dam removal is fundamental to success, as it makes the coalition politically, culturally, and geographically diverse, a prerequisite for winning big political battles.

Admittedly, the KBRA is not a perfect solution from any one party's perspective, but it is better by leaps and bounds than the alternative of a continued vitriolic fight that pits neighbor against neighbor and ends in status quo. That's certainly an acceptable outcome for PacifiCorp and it may be an acceptable outcome for Oregon environmentalists whose families don't have to live through the rotating Klamath Crisis year after year. But for the people living, working, and raising families in the Klamath basin, things, have got to change.

Right now the rural communities of the Klamath Basin have an unprecedented opportunity to solve the Klamath Crisis once and for all. The only thing holding them back is the opposition of outsiders like Warren Buffett, Oregon Wild, and WaterWatch.

Chair's Corner Continued from page 3

supplementation? Again, the scientific evidence to date is not hopeful.

3. What will be the impact on native summer steelhead of a concentrated lower River fishery for non-native coho and fall Chinook, all three of which arrive at the mouth of the river at about the same time in the late summer and early fall? There will be little or no time separation between the target fish and the ESA listed steelhead.

4. And finally, as the feds and the Tribes make plans like this, what is the role of the other co-manager of the resource, the Washington Fish and Wildlife Department?

All of this comes back to our firmly held belief supported by the science that, given reasonably intact habitat, wild steelhead and salmon recovery works much better than hatchery supplementation, even supplementation from in-basin wild broodstock. Wild salmoid management zones have great promise for recovery, and the Klickitat is an excellent fit.

If the Yakama Tribe's or similar plans take over the Klickitat and other interior Washington rivers, the WDFW plan to place highest priority on natural production will become a false promise.



Columbia River from Vista Point.

For more information on the Klamath River log on to:

www.klamathriver.org
www.salmonforsavings.com
www.berkshireshareholder.com





Off the Hook

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President Franklin Roosevelt authorized the protection of 37,000 acres in what was Tule Lake. Simultaneously, the Klamath River meandered wild and strong from the high desert of southern Oregon to the north coast of California, teeming with salmon, and host to native and homesteading fishermen as the third largest salmon fishery in the West.

Unfortunately, the visionary and inspired attempts to protect the Klamath's fragile and important wetlands and remarkable river have been undermined by a century of mismanagement and abuse. The U.S. Bureau of Reclamation's massive Klamath Irrigation Project, initiated in 1905, paved the way for extensive agricultural development that destroyed thousands of acres of wetland, interrupted fish runs, and attempted to phase out much of the native culture of the basin. In recent decades, continued agricultural development, excessive water diversions, agricultural pollution, and drought have further damaged the remaining wetland habitat and water quality of the Klamath River.

Over time, 80% of the historic wetlands in the Klamath Basin have been drained, largely due to early development during the first half of the 20th Century. Similarly, peak numbers of migratory birds have also dropped by over 80% during approximately the last 60 years. The basin continues to face major environmental challenges both within and beyond the refuges. Dry years and political water battles with basin irrigators have led to low river flows, and four antiquated dams continue to block hundreds of miles of native salmon habitat, limiting fish range and run strength, while hosting toxic algae pools in their reservoirs. The problems in the Klamath are many, and both farmers and conservationists agree that evenhanded resolutions are rare.

The "settlement" overview

In January 2008, after three years of negotiations, stakeholder groups, including federal agencies, tribes, fisheries, and more, released draft 11 of the Proposed Klamath Basin

Restoration Agreement, a product of the Federal Energy Regulatory Commission re-licensing process for the Klamath River dams. Commonly referred to as "the settlement," this document is the product of difficult and complex discussion among some of the basin's stakeholders over the needs of the Klamath Basin. This discussion was yet another attempt at a democratic resolution to the basin's ongoing resource crisis. Unfortunately, despite the years of round-table on the issues in the Klamath, the settlement hardly represents a unanimous perspective. Although this \$1 billion agreement contains a number of very positive

Despite years of round-table, the settlement hardly represents a unanimous perspective.

measures for salmon and other natural resource values, it also contains a large number of very troubling provisions.

To its credit, the settlement would dramatically increase spending on salmon restoration in the Klamath Basin through a variety of worthwhile programs. Over a 10-year period, the plan calls for devoting \$322 million dollars to fisheries restoration, and \$117 million in scientific research and monitoring. The agreement also calls for \$45 million for reducing irrigation demand above Upper Klamath Lake by 30,000 acre-feet over 10 years, which is a much-needed first step in bringing water use in the basin back into balance with what the area's rivers, streams, and wetlands can sustain.

Unfortunately, the other half billion dollars of proposed spending in the settlement plan are not used as wisely, with many conditions and earmarks that would actually preclude the more substantial watershed restoration the Klamath Basin desperately needs. In the end, it is the anti-conservation

measures in this deal — made to secure Bush administration sign-off — that ultimately jeopardize the very prospect of dam removal and a balanced basin wide solution.

Harmful settlement provisions

The harmful provisions in the settlement are many. Expert legal analyses from WaterWatch of Oregon provided some support for the following analyses of the settlement's many damaging conditions. From limits on wetland habitat recovery to financial rewards for already subsidized irrigators, this 50-year contract settlement lacks the holistic vision necessary for balancing resource demands in the Klamath Basin. As such, a number of negotiating parties have voiced reservations about the settlement. Conservation groups such as the Northcoast Environmental Center, as well as non-Klamath Irrigation Project farmers, tribal affiliates, and political representatives have all expressed serious concerns about the deeply flawed and controversial "deal."

Water guarantees for irrigation only

If implemented, the Klamath settlement would provide guaranteed allocations of water to irrigators who farm within the Klamath Irrigation Project ("Project irrigators") without providing similar water guarantees to ensure the survival of fish in the Klamath River. In wetter years, the settlement would guarantee Project irrigators more water than they have historically received. In drier years, Project irrigators would be guaranteed more water than they have received since Klamath River coho salmon were protected under the Endangered Species Act (ESA). In fact, the settlement contemplates flows well below those that resulted in the tragic 2002 fish kill, when over 60,000 salmon died due to low river flows.

Simply put, the settlement provides that Project irrigators in the basin get their guaranteed allocations of water, while the river and fish get what's left over. Independent scientific analyses of the water provisions in the agreement have determined that the settle-

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ment will not lead to recovery of Klamath River salmon. In fact, these analyses determined that the flows likely to result from the settlement will not meet the levels called for in the Hardy Phase II report on the streamflows needed to restore Klamath salmon runs—named as the best available science regarding the needs of salmon in the basin by the National Research Council's most recent Klamath report. Fisheries biologist Bill Trush, who conducted one of the independent analyses of the settlement, has concluded, "The most striking aspect of the Settlement Agreement is that the burden of proof and the accompanying risks rest almost entirely on the salmon..." (*Testimony of Bill Trush before the Humboldt County, Calif. Board of Supervisors, January 22, 2008*).

A failure to identify and protect flows needed for listed salmon violates the ESA. By law, the Klamath Irrigation Project is required to use the best available science to minimize the harm caused to listed species. The settlement would violate this responsibility by requiring the Bureau of Reclamation to provide the guaranteed water for Project irrigators regardless of the needs of ESA listed salmon.

Commercial agriculture on Lower Klamath and Tule Lake national wildlife refuges

One of the most tragic flaws in the settlement includes language committing each signatory party, including the U.S. Fish & Wildlife Service (USFWS), to support continued leasing of 22,000 acres of publicly-owned land on Lower Klamath and Tule Lake National Wildlife Refuges for commercial agriculture for the next 50 years. These two National Wildlife Refuges are two of the premier waterfowl refuges in the United States and any package purporting to restore the Klamath Basin should phase out agribusiness on refuge land, not lock it in. At the close of the Clinton administration there was a push by the Klamath Basin's refuge manager to move the commercial farming lease program off of the refuge and onto private lands that were to be acquired for that purpose. In 1999, the Clinton

administration also initiated a "compatibility determination" process aimed at reducing or eliminating the lease-land farming program during drier years to ensure adequate water for refuge wetlands. In 2001, the Bush administration halted these processes. Under the settlement, future administrations and USFWS biologists would be obligated to support the lease-land farming program. In addition, settlement language could be used in court by determined agricultural interests to block any new science-based compatibility determination. While the Bush administration is soon to leave office, the settlement ensures that their misguided policies for these internationally significant national wildlife refuges will live on for the next 50 years.

As further benefit to irrigators, the settlement allows for lease-land revenues to satisfy any remaining balance owed to the American taxpayer by irrigators throughout the Klamath Irrigation Project. In addition, future net revenues from lease land farming would be shared by the two irrigation districts whose patrons commercially farm the refuges, the USFWS, and the Bureau of Reclamation to pay for capital costs. By diverting these funds to reduce the expenses of all Project irrigators, the settlement cements political support for continued commercial agriculture on these two national wildlife refuges.

Water for national wildlife refuges and wildlife

A number of provisions in the settlement penalize USFWS refuge managers for restoring wetlands in the Upper Klamath Basin. One provision

reduces Lower Klamath National Wildlife Refuge's water allocation from the Klamath River if the refuge ever obtains other water sources. This limits the refuge's ability to ever do better than the allocation given in the



Lakes and wetlands in the Upper Klamath Basin provide crucial habitat for a variety of fish and wildlife species. Photograph by Jim Yuskavitch

settlement, and therefore limits restoration of valuable water storage and cleansing wetland habitat.

Similarly, the settlement also provides that the water allocation for wildlife and wetlands in Tule Lake and Lower Klamath national wildlife refuges will be reduced in dry years, while there are no requirements to reduce water deliveries to irrigators enrolled in the lease-land farming program on adjacent lands. During droughts, under the settlement, refuge wetlands would go dry while water use on adjacent commercial agricultural operations on National Wildlife Refuge lands would not be restricted.

As a final insult, the settlement plans to penalize the USFWS for expanding its "walking wetlands" program. This program, which has been celebrated by the Bush administration and some irrigators, creates temporary wetlands as a means of reducing the harm caused by the lease-land farming program. Under the program, some pub-

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licly owned lands within Tule Lake National Wildlife Refuge are fallowed for several years and allowed to return to wetlands, then drained and returned to commercial agriculture. While the walking wetlands program is a half measure at best, the draft settlement agreement would penalize refuge managers for expanding it (both on lands within the refuge and on private lands outside) by decreasing the water allocation to Lower Klamath National Wildlife refuge by one acre foot for each acre of new walking wetlands created.

Sweetheart deals that undermine fish and wildlife restoration

In addition to water guarantees, the settlement also provides Klamath project irrigators with \$40 million over 6 years, in order to provide below-market electricity rates to cover the costs of operating irrigation pumps, and to develop private electricity production for agricultural interests. Below market power rates have been shown to encourage wasteful water use and have made it economically viable to drain refuge wetlands for commercial agriculture. While in July, the U.S. Court of Appeals for the District of Columbia ruled to deny below market power rates for Klamath Basin irrigators, the settlement includes legislative language that would give Project irrigators preferential power rates from the Columbia River Hydro System. The settlement also allows for costs for operation, maintenance, and power of the Klamath Project to be reduced at taxpayer expense.

Water quality and climate change issues

Given the significant water quality challenges faced by basin residents, tribes, and fish and wildlife due to toxic algae blooms and other stressors such as disease in the Klamath River, it is troubling to find that there are no provisions in the settlement to address the serious water quality problems in the Keno Reservoir, where fish kills occur on a regular basis. Likewise, with climate change concerns on the rise in the Pacific Northwest, it is

equally concerning that this 50-year agreement does not include any significant provisions, amendments, or plans for climate change impacts in the Klamath Basin.

Reducing oversight and accountability

The settlement would provide Project irrigators with \$94 million in federal tax dollars to develop and carry out their own water management plan for the Bureau of Reclamation's Klamath Irrigation Project without appropriate National Environmental Policy Act (NEPA) review and public oversight. Water is a public resource, and providing public money to a private interest group to manage it with no public oversight is irregular, ill

A balanced plan for restoration of Klamath salmon must start by ensuring the demand for irrigation water is compatible with what nature can provide.

advised, and inconsistent with current laws. In this case, there is a serious risk that this investment would be used to develop unsustainable groundwater pumping facilities. Because surface water and groundwater are essentially one resource in the Klamath, switching surface water diversions to groundwater pumping is a dangerous option.

No dam removal agreement

While the settlement has been marketed by some as the key to removal of the Klamath River's four major dams, the current settlement has no provision for dam removal. Dam removal depends entirely on agreement from PacifiCorp, the owner of the Klamath dams and manager of the Klamath Hydroelectric Project. Dam removal costs are not part of the already hefty price tag of the settlement. This esti-

mated \$180 million would fall to PacifiCorp or the federal government upon a transfer agreement. Without a specific, express agreement on dam removal, the proposed agreement is illusory, lacks consideration, and fails to deliver on the central premise of the negotiation.

A balanced plan

A truly balanced plan for restoration of Klamath River salmon runs must start by bringing the demand for water for irrigation back into balance with what nature can safely supply. The Klamath needs a voluntary demand reduction program that works with farmers to buy back water rights for irrigation and retire them, so that salmon and wildlife can receive the water they need to survive. We must also phase out the practice of leasing land on Tule Lake and Lower Klamath national wildlife refuges for private commercial agricultural operations, both to reduce the demand for water and restore water-cleansing wetlands. Finally, we need a real plan for the removal of the lower four Klamath River dams.

If settlement supporters are serious about a plan to protect fish and wildlife, backers will step back and take pause. Instead of rushing to lock in a deeply flawed proposal, they might realize that in a matter of months America will have a new President, and some of the sacrifices made in the current proposal may no longer be needed. There is no biological or policy imperative to rush through any Klamath settlement in the coming months. However, Project irrigators and other interests who would benefit financially from the agreement are attempting to generate a sense of urgency in hopes of locking in a deal before the Bush administration leaves office. Given this administration's history in the Klamath Basin, which has been marked by political interference in science, massive fish kills, and strong-arm tactics against fish and wildlife advocates, great skepticism of the draft agreement is warranted.

For more information log on to:

www.oregonwild.org



Freeing the Rogue

A look at the dam situation on a top Oregon river

By Bob Hunter

— *WaterWatch of Oregon* —

Author Bob Hunter is a staff attorney for WaterWatch of Oregon, a river conservation organization dedicated to protecting and restoring natural flows in Oregon's rivers. WaterWatch has been the lead organization in the battle to remove Savage Rapids Dam, and has played a key role in other Rogue Basin dam removal projects. Hunter is the project manager for WaterWatch's "Free the Rogue Campaign" and is an honorary life member and past president of the Rogue Flyfishers. He may be reached at bob@waterwatch.org.

Dam, including 50 miles on the mainstem. All spring chinook salmon spawn upstream of the dam, and the dam impedes passage of significant portions of the four other runs of salmon and steelhead in the Rogue, including coho salmon listed as "threatened" under the Endangered Species Act.

The dam's fish ladders do not meet current standards, have poor attraction flows, and are generally inadequate. During the spring and fall, when dam operations are starting up

bypass systems. There is also a loss of 3.5 miles of prime fall chinook salmon spawning habitat that will be reclaimed by the elimination of the seasonal reservoir pool when the dam is removed.

According to a 1995 Bureau of Reclamation Planning Report and Environmental Statement (PRES), removal of the dam would increase fish escapement at the site by 22%. This translates into approximately 114,000 more adult salmon and steelhead each year (87,900 that would be available for sport and commercial harvest and 26,700 that would escape to spawn) valued at approximately \$5,000,000 annually.

Savage Rapids Dam does not provide any flood control, storage, or power generation benefits. The dam can be removed and replaced with properly screened pumps that can safely and more efficiently perform the dam's current water diversion function. The Bureau of Reclamation determined in its environmental statement that removing the dam and replacing it with pumps was more cost effective and beneficial than trying to fix the ladders and screens.

Though the case for removing Savage Rapids Dam has long been compelling, it had been difficult to move forward because of intense social, political, and ideological resistance to the concept of dam removal, coupled with local fears and misconceptions about the benefits and impacts of dam removal.

In 1988, an opportunity arose under state water law to examine the impacts of the dam and the alternatives for solving fish passage problems at the dam. GPID needed additional water to

The Rogue River in Southwestern Oregon is one of the nation's most outstanding rivers. Because of its scenic beauty, world-class whitewater, and internationally renowned salmon and steelhead fishery, it was one of the original group of rivers designated as "wild and scenic" with the passage of the Wild and Scenic Rivers Act in 1968. This magnificent river runs free from the Pacific Ocean upstream for 107 miles, at which point salmon and steelhead migrating upstream encounter their first man-made obstruction, Savage Rapids Dam.



Officials began the process of notching the Elk Creek Dam with a July 15, 2008 explosion. The job will be completed this fall. Photograph by WaterWatch of Oregon

Savage Rapids Dam

Savage Rapids Dam is a 39-foot-high, 500-foot-long water diversion dam constructed across the Rogue River by the Grants Pass Irrigation District (GPID) in 1921. State and federal fish management agencies have long considered the dam the biggest fish killer on the Rogue River. There are over 500 miles of salmon and steelhead spawning habitat upstream of Savage Rapids

and shutting down, upstream fish passage can be totally blocked. As a result, adult fish are delayed, injured, and sometimes killed while trying to navigate the dam in their upstream spawning migration. Spawning success is thereby severely reduced.

In addition, significant numbers of juvenile fish are killed because of the inadequate screens on the dam's pump-turbine system, and increased predation in the seasonal reservoir pool created by the dam, and at the dam's

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operate its inefficient water delivery system, and when it applied for a new water right, WaterWatch of Oregon, along with the Rogue Flyfishers (a member club of the Federation of Fly Fishers) and the American Fisheries Society, protested GPID's water right application, raising public interest concerns over the fish passage problems at the dam and GPID's inefficient water use.

In 1990, the parties settled the protest and reached an agreement with GPID and the State on a temporary water right permit that allowed GPID additional water, provided GPID conducted a study on water conservation and fish passage alternatives, including dam removal. The study was completed in 1994, and recommended replacing the dam with pumping facilities as the best means for solving the fish passage problems at the dam. In October of 1994, in response to an incredible turnout of groups and individuals advocating for dam removal, the State of Oregon Water Resources Commission extended GPID's temporary water right conditioned on GPID exercising due diligence to remove the dam, and reducing its water diversion by 50cfs.

Unfortunately, early opportunities for funding dam removal were lost because GPID reneged on its commitment to remove the dam in 1995, and instead pushed a bill through the Oregon state legislature that would have saved the dam. This bill was vetoed by Governor Kitzhaber, but a subsequent bill passed, which delayed dam removal for two years, while a task force further studied the matter.

In 1997, the task force study ended, and GPID was again subject to the requirement in its water permit to proceed with due diligence to remove the dam. Also, in 1997 coho salmon in the Rogue River were listed as a "threatened" species under the Endangered Species Act. GPID again assured state and federal officials that it would move forward with dam removal, but in 1998 a new GPID board again reneged on its commitments, and instead elected to wage a political and legal battle to save the dam.

This led to litigation in 1998 at both the state and federal level. At the state level WaterWatch and the Oregon

Water Resources Commission took action to cancel GPID's water right for failing to exercise due diligence to remove the dam as required under its temporary water right permit. At the federal level, the National Marine Fisheries Service filed suit against GPID in federal district court to enjoin operation of irrigation diversions until GPID complied with the Endangered Species Act. Thirteen sport fishing, river guiding, environmental and commercial fishing groups intervened as plaintiffs. EarthJustice represented WaterWatch and several other conservation organizations in the litigation.

By 2000 things began to change. GPID patrons grew weary of the costly and protracted legal battles. The public became more comfortable with the idea that dam removal could be a win-win scenario for the Rogue River, GPID, salmon, and the community at large. In a January 2000 vote, over 60 percent of GPID's patrons supported dam removal. Soon thereafter, WaterWatch and the State were successful in winning the state water right litigation. This legal victory allowed WaterWatch to enter into direct negotiations with GPID, and forge a settlement of all federal and state litigation. This settlement agreement was formalized in a Consent Decree entered in federal court in August 2001. The Decree set a specific timeline for dam removal and required GPID to hire a lobbyist to assist with legislation and funding to remove the dam and replace it with pumps. It also required GPID to transfer its 800 cfs power right to an instream water right at the time of dam removal, thus further protecting Rogue River flows.

With the Consent Decree in place, the parties began working cooperatively to implement the agreement. The Oregon Watershed Enhancement Board (OWEB) pledged \$3 million toward dam removal in January 2002, demonstrating the state's commitment to dam removal. This helped leverage federal action, and with the strong bipartisan support of Oregon's congressional delegation, legislation (P.L. 108-137), authorizing the Bureau of Reclamation to install pumps and remove the dam, was passed on December 1, 2003.

From 2004 into 2006, the Bureau of Reclamation conducted the engineer-

ing, environmental review and permitting needed for the installation of pumps and dam removal. Funding was obtained through federal appropriations, OWEB, the National Fish & Wildlife Foundation, Fish America Foundation, America Sportfishing Association, NOAA Fisheries Restoration Center, Patagonia, World Wildlife Fund, the Rogue Flyfishers and WaterWatch.

On August 9, 2006 the contract for pump installation and dam removal was awarded to Slayden Construction Group of Stayton, Oregon. Construction commenced on October 11, 2006, and federal appropriations of \$13 million were procured in Reclamation's fiscal year 2007 budget. Additional federal funds of \$14.76 million were secured in Reclamation's fiscal year 2008 budget and the project is well underway. The pumping plants are almost complete and the dam will be removed in 2009, allowing salmon and boats to travel unimpeded through Savage Rapids for the first time since 1921.

Gold Hill Diversion Dam

Fourteen miles upstream from Savage Rapids Dam, salmon and steelhead encountered the next man-made obstruction, the Gold Hill Diversion Dam. This dam was a 1,000 foot long L-shaped structure, averaging 6 feet in height. It was originally constructed by Pacific Oregon Power Company over 87 years ago to divert water into a canal that delivered water to a power plant 2,000 feet downstream. No fish passage facilities were ever constructed at the dam, and the diversion into the canal was unscreened. The dam was identified as the second most harmful barrier to fish in the Rogue River basin, although fish could squeak over it at a few low points.

Over the years the dam was transferred to various owners, mostly cement companies that used the power to operate their facilities. In 1968, the City of Gold Hill took title. The City never operated the power plant, but used the dam and canal as its municipal water intake.

The City, however, was faced with the some of the same issues that had confronted GPID. The City was diverting

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more water into the canal than it was legally entitled to, and the dam harmed ESA listed coho salmon. Influenced by the expensive and unsuccessful battle GPID was fighting over Savage Rapids Dam, the City instead chose a course of cooperation, and in 1999, it invited the Rogue Valley Council of Governments and the Rogue Basin Fish Passage Technical Committee, which included several federal and state fishery and resource agencies, to help it fund and implement a solution to its problems. A plan was eventually developed to construct a new water intake for the City upstream of the dam and remove the dam. The Bureau of Reclamation played a major role in analyzing the fish passage alternatives in the planning process.

In 2005, the City completed a new water supply intake structure upstream of the dam. With substantial funding from OWEB and the NOAA Restoration Center, and support from a broad range of partners, including the National Center of Conservation Science and Policy and WaterWatch, the dam was successfully removed in July of this year.

Gold Ray Dam

Continuing upstream the next barrier to migrating fish is Gold Ray Dam, a 35 foot high dam spanning the Rogue River at river mile 125.7. Gold Ray Dam was constructed in 1904, and operated as a hydroelectric facility until 1972 when it was closed permanently. The dam is now owned by Jackson County. It serves no function for the County and is a major liability to the County, both in terms of public safety and because it harms ESA listed coho salmon. The dam ranks fifth in priority for removal and/or fish passage improvement on the Oregon Department of Fish and Wildlife's Statewide Fish Passage Priority List.

Jackson County has formed a committee and retained HDR Engineering to examine the feasibility of removing the dam. This year, WaterWatch and other committee members helped Jackson County secure a \$100,000 Ecotrust grant made possible by NOAA Fisheries Restoration Center funds to study the sediment behind the dam. A sediment study is necessary to

determine the feasibility of removal and for development of a plan to manage the sediment. The sediment study should be completed later this year and will help inform the environmental review and permitting processes that will be necessary to remove the dam.

There is still a lot of work that needs to be done on this project, but if timely funding can be secured for environmental review, engineering, planning, permitting, reservoir restoration and construction, it is likely this dam will be removed in the next several years. With its removal the Rogue River will run free for 157 miles from Lost Creek Dam to the ocean.

Elk Creek Dam

While important river restoration work proceeds on the mainstem of the Rogue River, Elk Creek, one of the most important salmon and steelhead spawning tributaries in the upper Rogue Basin, is also being restored after a lengthy political and legal battle.

Elk Creek Dam was a U.S. Army Corps of Engineers flood control and water storage project authorized in 1962. From the start it was considered an environmental and economic boondoggle. Besides destroying important spawning habitat, the project would have created water quality, flow, and temperature problems for the Rogue River and inundated critical elk and deer wintering habitat. In 1985, Congressman Jim Weaver came close to de-authorizing the project, after a 1982 General Accounting Office report concluded that the dam would return only about 10 cents on every dollar spent. Unfortunately, this fiscally irresponsible and environmentally unsound project was ultimately funded, and dam construction began in 1986.

Prior to the start of construction, Oregon Wild (formerly the Oregon Natural Resources Council) and other conservation groups sued under the National Environmental Protection Act to stop construction. The trial court ruled in favor of letting the project proceed, but a year later construction was halted by the 9th U. S. Circuit Court of Appeals. Subsequent litigation under the Wild and Scenic Rivers Act resulted in an order requiring fish

passage at the partially completed dam. A trap and haul program was instituted, but with the listing of coho salmon as "threatened" under the ESA, notching the dam was seen as the only biologically sound and most cost effective alternative to provide fish passage. For almost a decade, politics kept the Corps from spending money on notching, but with the Democrats regaining control of Congress the Corps was finally able to secure the funds to proceed. The notch will be completed this September just in time for returning coho salmon returning to spawn this November.

Conclusion

It's an exciting time on the Rogue River. Large dams that for years have caused tremendous harm to the wild salmon and steelhead of the Rogue are finally coming out. However, these important river restoration projects did not come about easily. It took the hard work and dedicated advocacy on the part of many conservation organizations and individuals over many years to bring them to fruition.

It also took a body of environmental laws and the willingness of groups and state and federal agencies to litigate and enforce these laws to move these projects forward. Without litigation, no agreement would have been reached to remove Savage Rapids Dam, and Elk Creek Dam would have been completed, instead of notched. The Endangered Species Act has been a major catalyst on all of these projects, encouraging dam owners to look at dam removal alternatives in order to comply with the law.

Finally, without the cooperation and technical assistance of federal and state agencies coupled with Congressional appropriations and substantial funding from the Oregon Watershed Enhancement Board, NOAA Fisheries Restoration Center, and many other organizations and foundations, implementation of these projects would not have been possible.

For more information on WaterWatch's "Free the Rogue Campaign" go to: <http://www.waterwatch.org/programs/freeing-the-rogue-river>.





The Mattole River

Portrait of a unique northern California wild fishery

By Phil Greenlee

— Northern California Council, Federation of Fly Fishers —

Author Phil Greenlee lives in Redding, California. He is member of the Federation of Fly Fishers Board of Directors and of the Northern California Council of FFF as well as past president of the Northern California Council of FFF. His book "The Salmon and Steelhead Rivers of Northern California," Wilderness Adventures Press, is due out in 2009.

Jon Goin, fisheries biologist with the NOAA Northwest Fisheries Science Center, contributed to this article.

The Mattole River, located in northern California, is a special watershed. Much like several other regional rivers (Redwood Creek, Van Duzen River, South and Middle Forks of the Eel River), the Mattole has not been dammed, nor does it contain any hatchery fish. But what makes it unique is its geographic location in relation to these rivers. The Mattole enters the ocean further south than all other streams of the famed "Six Rivers" area and is separated from the Eel River mouth by Cape Mendocino, a significant coastal feature that isolates the Mattole from rivers further north and marks the southern extent of the range of coastal cutthroat trout (*Editor's Note: the Eel River has cutthroat trout, the Mattole and all streams south of Cape Mendocino do not*). The Mattole also marks the northern boundary for the "Lost Coast", which is made up of about 64,000 acres of extremely steep, undeveloped coastline containing only small, steep gradient coastal drainages with a few steelhead. The southern boundary of the Lost Coast is Shelter Cove. There are no significant coastal streams with any salmonids other than steelhead south of the Mattole until you reach the Fort Bragg area, and the lack of salmon along this stretch of coastline was enough reason for NOAA Fisheries to form the break between the Northern

California/Southern Oregon and Central California coho salmon ESUs (Evolutionarily Significant Units) at the Mattole River.

This geographic isolation provides an exceptional refuge for wild fish and possibly irreplaceable genetic material. However, like many other rivers in California, the Mattole suffers from low water conditions in the summer months. Because of water demands from the public during the dry season, maintaining adequate instream flows to protect the fish is a challenge.

The Mattole low-flow problem creates an urgent situation that, if left unresolved, is likely to have major consequences for the river's Chinook and coho salmon, steelhead, and human residents of the area. However, with proper water management and continued habitat restoration efforts, biologists believe the Mattole River is ideal for supporting strong populations of coho, chinook and steelhead. To save water, a new method has been introduced, with residents collecting and storing rainwater from their roof runoff. The residents use the water from the storage first before they are allowed to take water from the river. With this program in the Mattole watershed and a new critical coast draft strategic plan, the Mattole has the potential to serve as a substantial wild fish refuge and can be used as a model for other rivers in California.

Location

The Mattole River is located on the

north coast of California and is mostly in Humboldt County. A small portion of the upper river flows through Mendocino County. The river is 62 miles long and has 74 tributaries. It drains about 304 square miles including the eastern side of the Kings Range and flows through the Mattole Valley before emptying into the Pacific Ocean.



Northern California's Mattole River is undammed and has no runs of hatchery salmon or steelhead. Photograph by Phil Greenlee

There are three roads leading to the town of Honeydew: one comes from Garberville which follows Wilder Ridge road, another off of the U.S. Route 101 that runs through the Redwood forest, and another from Ferndale in the north. All three roads traverse twisting mountain country, which can be very dangerous in bad weather, especially coastal fog conditions. Because of its isolated location, Honeydew retains a small town atmosphere. There are no motels in the town, but there are several campgrounds nearby. The communities of nearby Petrolia and Cape Town were originally stagecoach and mail stops in the 1800s. They have a saying in the

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Mattole region: "When you leave, please take someone with you."

The fishery

The Mattole River has runs of anadromous salmonids similar to other regional rivers. There is a fall Chinook salmon run followed by coho in December and January. These runs are completely off limits to fishing. A run of notoriously hard fighting winter steelhead, a few of which weigh more than 15 pounds, follows the coho. All three species have some overlap in their run timing and they share certain spawning habitat. Some people believe there is a very small run of summer steelhead in the Mattole, but these are likely trapped fish that do not return to the ocean before baseline flows resume and the sandbar at the mouth closes. This is common in California coastal streams in years with little spring rainfall.

The Mattole River is not dammed and has not received hatchery plants since the early 1960s. It also has the most stringent regulations of any river on the North Coast. Additional restrictions not found on other rivers nearby include a 'no bait' restriction and not opening for any fishing until January 1st at the earliest (to protect the depressed fall Chinook run). After January 1st, if the flow exceeds 320 cfs (cubic feet per second), the first 26 miles from the mouth up to Honeydew is open to fishing. All fishing is closed upstream of Honeydew and in all tributaries to protect fish on the spawning grounds. Much like other rivers in the region, the Mattole has low flow closures until February 1st, and only single barbless hooks may be used, and catch-and-release must be practiced.

These conservative management measures, coupled with a difficult, long trek to the river from anywhere outside the Mattole Valley, the lack of proximity to any population center, and private lands limiting access along much of the river, provide fish of the Mattole with adequate protection from harvest. Many anglers opt to save the time spent on a bumpy, car sickness inducing ride and fish locations closer to Highway 101 where you can use bait and, in a select few places, take a

hatchery fish home for the table. With limited public access, fishing is usually done from driftboats on the Mattole.

Identifying the partners for the management of the river

The California Coastal Commission was established by voter initiative in 1972 and later made permanent by the state legislature through adoption of the California Coastal Act of 1976. The mission of the Coastal Commission is to protect, conserve, restore and enhance environmental and human-based resources of the California coast and ocean for environmentally sustainable and prudent use by current and future stewards. The Coastal Commission, in partnership with coastal cities and counties, plans and regulates the use of land and water in the coastal zone. The Coastal Act has specific policies, one of which is conserving and restoring terrestrial, freshwater and marine habitat, as well as the protection of the commercial fisheries. Implementation of the Coastal Act policies is accomplished primarily through the preparation of local coastal programs, and the Mattole River has become a blueprint for solving, identifying and managing environmental issues.

There are a number of environmental groups associated with the Mattole watershed, one of which is the Mattole Restoration Council. The council is dedicated to the protection and restoration of natural systems in the Mattole River watershed. They emphasize maintaining a healthy, productive ecosystem, especially in regards to forests, fish, and other native plant and animal communities. Their activities include research, education, conservation, restoration and water pollution prevention. Their research and conservation activities focus on wetlands, cultural history, wildlife, watershed hydrology, habitat restoration, endangered species, water quality/storm water runoff and bay and estuary habitats. The council's educational outreach targets K-12, university students and the general public. By working with schools within the watershed they are able to provide in-class and on-site learning opportunities that facilitate active participation in watershed ecology and restoration.

Sanctuary Forest's Mattole flow program, water storage and forbearance

Sanctuary Forest, a northern California non-profit land trust focusing on the Mattole River headwaters, developed the Mattole Flow Program to address an emerging crisis in its headwaters — severe, seasonal water shortages. Beginning in 1999, a pattern of summertime low flows in the headwaters led the river to dry up in some reaches, leaving disconnected pools in places and poor water quality in the remaining reaches. This is thought to be a result of water withdrawals from the river by local residents. These conditions are potentially devastating for the already threatened native salmon populations in the Mattole, which rely on headwater areas for juvenile rearing habitat during low flow conditions in late summer and fall. These conditions could prove particularly disastrous for coho salmon, as a majority of the population in the Mattole watershed utilizes the upper reaches of the mainstem for spawning, and these reaches contain most rearing coho juveniles during summer. The local residents have also suffered from the water shortage, with increasing tensions over water use and poor water quality. In some cases, residents have been forced to import water or severely limit their use.

Sanctuary Forest is focused on addressing this problem using three methods: temporary water storage; stream flow monitoring; and public education. The centerpiece of the response is the "tanks and forbearance" program for landowners in critical reaches of the Mattole headwaters. The voluntary partnership helps these landowners get the water storage capacity they need in order to give up pumping from the river during the critical season, and thereby keeping that water flowing when the river needs it most. Currently there are 120 residents in the Mattole Valley with 40 storage tanks in use today. The Mattole River is a wake up call for our fisheries and watershed management. With the population growth in California stressing an already limited water supply, each county in California will need to have similar water plans for the

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future.

The other major habitat issue in the Mattole River watershed is the estuary. In the recent past, the Mattole watershed was dramatically altered by extensive logging operations. The removed forests of the watershed exposed extremely steep terrain of geologically unstable soils to the 1964 flood, an event so dramatic that it completely reshaped river channels along the entire Northern California coast, and its effects can still be observed today. The Mattole River has been particularly hard hit by sedimentation and is listed as sediment and temperature impaired under the TMDL (total maximum daily load) program of the Clean Water Act. The impaired conditions are most apparent in the estuary, which has been reduced in volume dramatically. This not only has reduced the amount of estuarine habitat available for juvenile fish transitioning from fresh water to saltier conditions, it has caused much warmer summer temperatures in the estuary and potentially lethal conditions during heat waves. The estuary is also much shallower than in the past, which makes it more difficult for juvenile fish to escape predators in this habitat. The impaired estuary is probably one of the main reasons that the Chinook population on the Mattole has been depressed severely. Juvenile Chinook in the Mattole depend heavily on the estuary for rearing before entering the ocean, and Chinook productivity in the Mattole has likely been severely reduced because of these conditions.

The Mattole River is a special river in an isolated and beautiful place. If proper stream flow management and substantial habitat restoration, especially in the estuary, can be implemented, this watershed could provide a substantial refuge for wild salmonids along a stretch of coastline with a scarcity of sizable populations.

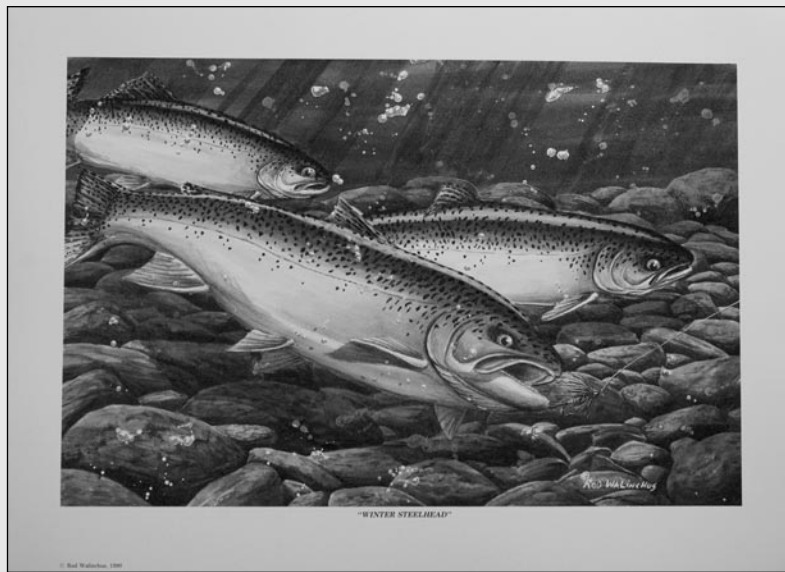


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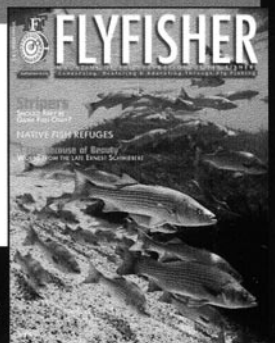
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Friends of Wild Salmon

Banning salmon farming from northern B.C. waters

By Andrew Williams

— Friends of Wild Salmon —

Andrew Williams writes extensively for a variety of Canadian and U.S. flyfishing publications. He is a founding member of Friends of Wild Salmon and lives in Terrace, British Columbia.

In this article he tells us about the successful campaign to keep salmon farms from being established off the northern coast of B.C.

In late March, British Columbia Agriculture and Lands Minister, Pat Bell, announced that there would be no salmon farms in the coastal waters of northern British Columbia. The announcement followed the provincial government's passing a Cabinet Order in Council that suspended the granting of fish farm licences north of a line 140 km. (87 mi.) south of the mouth of the Skeena River. The long-awaited announcement culminated a three-year long battle of Friends of Wild Salmon to have the wild salmon stocks of the Skeena, Nass and Kitimat rivers protected from the impacts of fish farms that had been experienced elsewhere, especially in the south of the province.

While Friends of Wild Salmon has existed since January 2005, when I called the first meeting together, my concerns about the dangers of floating feedlots for salmon go back even further.

Salmon aquaculture has existed in B.C. since the 1960s with primarily local small operations using Pacific salmon. But by the '80s B.C.'s salmon farming industry had become dominated by foreign corporations raising the Atlantic salmon that had been domesticated in Norway. The rapid expansion that followed quickly led to public controversy and there were many reviews of the industry, by both government and non-governmental groups. In 1995, the then New Democratic Party (NDP) government capped the number of fish farm sites at 121 in the province and imposed a moratorium on the issuing

of further licences. The Salmon Aquaculture Review (SAR) was undertaken by the provincial Environmental Assessment Office and made 49 recommendations, but few were actually acted upon. The Leggatt Inquiry, funded by the David Suzuki Foundation, released its findings after extensive public consultation, in a report, *Choices, Clean Waters*, which made six recommendations including the maintenance of the moratorium and the removal of all net-cage fish farms from B.C. coastal waters by January 2005.

It was clear that the salmon aquaculture industry was intending to expand into the coastal waters of northern B.C.

The provincial and federal governments refused to participate in the Inquiry.

As all of the debates about salmon aquaculture raged throughout the province, by 2002 I was extremely worried about the potential impacts fish farms in the North could have on Skeena salmon. By then it was clear that the salmon aquaculture industry in British Columbia, dominated by Norwegian interests, was intending to expand into the coastal waters of northern B.C. Construction had begun on a fish hatchery on Wolf Creek near Port Edward, a small community south of Prince Rupert. The hatchery was built by Campbell River-based Marine Harvest Canada, the largest aquaculture company in Canada, and was designed to produce 5 million Atlantic salmon smolts a year to stock fish farms along the north coast.

Although the number of fish farm licenses in the province had been capped at 121 the Ministry of Sustainable Resource Management had already identified 18 potential fish farm sites to be developed along the north coast, primarily in the coastal waters just south of the mouth of the Skeena River, near Kitkatla. It came as no surprise then, when the newly elected Liberal provincial government lifted the seven-year moratorium on expanding salmon aquaculture.

I was horrified that floating salmon feedlots might be placed in the path of migrating Skeena salmon and steelhead. I researched the issue and interviewed Dr. John Volpe and Alexandra Morton for the article "Right Fish, Wrong Ocean" which I wrote for the *Atlantic Salmon Journal* and an editorial, "Atlantic Salmon in the Skeena," for *The Terrace Standard*.

Volpe had found evidence of Atlantics spawning in Vancouver Island rivers, and Alaskan commercial fishermen had caught escaped Atlantics in their nets, so he warned that it was just a question of time before they turned up in the rivers of the Skeena system, as anecdotal reports suggested they already had. Morton's stories about the devastation of the pink salmon runs in the Broughton Archipelago as a result of sea lice infestations killing the outmigrating fry just confirmed research coming from Norway, Scotland and Ireland. I became determined that no foreign aquaculture corporation, no government apologists for the industry, were going to threaten the survival of Skeena wild salmon and the ecosystem that depends on healthy returns of salmon each year.

In the spring of 2003, David Nall-Cain, the founder of the Scottish Sea Trout Group, came to Minette Bay Lodge in Kitimat, to speak about the devastation of wild salmon and sea

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trout stocks as a result of fish farms on the west coast of Scotland. Nall-Cain wanted to achieve two things during his trip to British Columbia: to help Canadians avoid the mistakes made overseas and to learn about experiments with closed-containment farms in B.C. I invited fishing guides from up and down the Skeena, Ministry of Environment people, anglers and the Haisla aquaculture biologist to come, but only about a dozen people in total turned up. I wrote an article for *B.C. Outdoors* about Nall-Cain's presentation and another editorial for *The Terrace Standard* about it.

Throughout 2004, I continued to talk to guides and anglers about fish farms, but people in the Skeena region did not seem to appreciate at that point the significance of the threats posed by salmon farms and were more concerned about other issues like the impact of commercial salmon fishing on the steelhead returns. In November of that year, two fish farm licenses for sites at Anger Anchorage and Petrel Point south of the Skeena River estuary had been granted to the Kitkatla First Nations in a joint venture with Pan Fish, and a third license was pending. My friend, Len Vanderstar, and I decided it was absolutely critical to get people in the watershed mobilized to confront this issue before the fish farms were established in the North. We were convinced it would be impossible to get rid of them once they were here.

In January 2005, I arranged a meeting in our Member of Parliament, Nathan Cullen's, office and again invited people from up and down the Skeena to attend. This time, residents were more concerned, because fish farms were coming North, and wild salmon advocates including Len Vanderstar, Jim Culp, Bruce Hill, Rob Brown, Tom Protheroe, Noel Gyger and others were present. I learned

from Nathan about an anti-fish farm group in Prince Rupert, Save Our Skeena Salmon, which had been established about a year previously by the Prince Rupert Environmental Society.

I travelled to Rupert the next weekend to meet with the members and discuss working together. I was very impressed to learn that this small group had found funding to have independent film maker Twyla Roscavitch film and produce a powerful documentary, "Call From the Coast" that succinctly outlined both the importance of

tion of commercial fishermen, First Nations, recreational anglers, angling guides, business people and concerned residents united to save northern British Columbia's wild fish stocks. Our goals were to convince the federal and provincial governments to reinstitute the moratorium on the expansion of fish farms and to change aquaculture practices to protect wild stocks. Supported by donations from local lodges, fishing clients, and foundations, FOWS opened an office in Terrace, hired a part-time coordinator and office manager and began preparing for a summit to bring the issue to public attention.

Over 400 people came to the Save Our Salmon Summit May 7th, at the community hall on the Kitsumkalum reserve just west of Terrace, on the Skeena River, to hear about the risks of salmon farms in northern British Columbia. During the day, they heard from three panels of speakers: scientists, First Nations and tourism operators.

The scientists began by speaking about the impacts open-pen

salmon farms were having on wild fish in southern B.C. and other parts of the world. Don Staniford, who had recently won a prize for his contribution to *Stain Upon the Sea*, a book about salmon aquaculture in B.C., spoke about the fight against fish farms in Scotland and Ireland. Martin Krkosek, a doctoral student working with Morton and Volpe, showed that fish farms are creating the same problems in the waters around Vancouver Island. Dr. Allan Gottesfeld talked about the work he and his researchers working with the Skeena Fisheries Commission had done, sampling over 100 sites, and collecting over 10,000 salmon fry along the northern coast. They discovered that the natural prevalence of sea lice on salmon fry was low: about 13.6% had sea lice —



As a result of a successful conservation campaign, salmon farms like this one are prohibited off the coast of northern British Columbia. Photograph by Andrew Williams

wild salmon to First Nations, commercial fishermen and the coastal ecosystem, and the problems existing fish farms had caused in the waters of the Broughton Archipelago. Twyla, an accomplished scuba diver, had filmed underwater to show the net pens, and had interviewed Alexandra Morton, who continues to be the inspiration to many of us fighting fish farms.

A few days later, we had the first organizing meeting at my house, and I suggested a Salmon Summit like the Steelhead Summit we had organized in the '90s for the Wild Steelhead Campaign. I was convinced that it was important to raise awareness of the threat of fish farms prior to the provincial elections so that voters would consider this issue when they were casting their ballots.

Adopting the name, Friends of Wild Salmon (FOWS), the remarkable coali-

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one louse — on them. By contrast, research has shown that sea lice levels around salmon farms are 50 to 100 times higher.

By the end of the presentation, the audience was convinced that as Gottesfeld said, “The science question is answered. It’s settled. Sea lice are a problem in salmon farms that affects wild salmon. And I’d say it’s time to get past denying there’s a problem. A time for the government to stop that and start talking about what you can do about the problem of sea lice and salmon farms.”

In the afternoon, presentations began with a panel of First Nations speakers, which included Chief Darren Blaney, who led the Homalco First Nation in their court challenge to fish farms in their territory. “You know, the problem with fish farms is they come in and do all of this destruction, this pollution.....Yet, there are no plans in there to deal with the environmental impacts that they are causing,” he said.

The speakers on the final panel emphasized that commercial fishing and the wilderness tourism, which includes hunting and fishing lodges, guides, eco-tourism operators and the many related businesses, generate \$1.5 billion a year in British Columbia and that the fish farms were jeopardizing these tremendously significant industries all for a few \$10 an hour jobs that fish farms offered.

Internationally renowned First Nations artist, Roy Henry Vickers, the designer of both the Save Our Skeena Salmon logo that FOWS adopted and the new salmon head logo, concluded the Summit with a passionate speech. He spoke eloquently after the supper of wild salmon about the need to make sure the healthy salmon runs of the Skeena and Nass Rivers do not go the way of the rivers on Vancouver Island and southern B.C.

Prior to the Summit, McAllister Opinion Research had conducted a poll on public awareness of, and attitudes towards, fish farms. The poll sample of 600 British Columbian adults found strong opposition to fish farms among residents of Northwest B.C. In total, 72 percent of those interviewed were opposed to allowing open-net salmon farms on the North Coast. Liberal, Conservative, First Nations, business-

men or anglers, it made no difference. No other issue so united residents of the watershed.

Friends of Wild Salmon made a moratorium on fish farms in the North a major issue in the June provincial election, perhaps the determining one in the North, as a result of FOWS,’ message to “Vote for Wild Salmon” which was included in 30,000 brochures circulated in the Skeena region. In the local ridings, Liberal incumbents lost Skeena to Robin Austin and Prince Rupert to Gary Coons of the NDP, who had both opposed fish farms. MP Nathan Cullen also worked to keep the issue on the political agenda in Ottawa, later bringing a private member’s bill forward to declare northern B.C. “fish farm-free.”

Approximately 5,000 people signed the FOWS declaration demanding a moratorium, and many individuals, local business people, lodge owners, visiting anglers, foundations and other groups continue to contribute financially to FOWS, enabling the organization to hire a part-time coordinator and administrative secretary. Brochures reminding people that “Wild Salmon Need You” have been sent to lodges and guides throughout the north, and large signs have been put up along major highways asking residents to help keep fish farms out of the Skeena River estuary.

In October 2005, FOWS held a fundraising banquet and dinner in Smithers with steelhead angler and writer, Lani Waller, as guest speaker. With generous donations of clothing, art, fishing equipment and angling adventures from local businesses, angling companies and non-resident anglers, we were able to raise \$25,000 through ticket sales and raffles.

The provincial government announced in November 2005, the formation of the Special Legislative Committee on Sustainable Aquaculture and invited the opposition NDP fisheries critic, Robin Austin, to chair the committee. The Honourable John Fraser had already been asked to chair the Pacific Salmon Forum in 2004 to deal with the issue, so many of us wondered what was the purpose of having two similar initiatives. We suspected that the Liberals viewed the aquaculture debate as a political hot potato they did not want to deal with

and one they hoped the NDP would scald their fingers on. But, Austin proved them wrong in the coming months.

During the following spring and summer, we continued our reaching out to the public. We established a website with a declaration for people to sign, made presentations to city councils and regional municipalities, attended public events up and down the watershed where we could educate people on the issue and get them to sign the declaration.

Residents of northwestern communities know that wild salmon support a vibrant economy that provides jobs in several sectors. In a 2006 study, IBM Business Consulting estimated the direct contribution of wild salmon to the annual economy of the Skeena Watershed at over \$110 million with a multiplier effect of 2 1/2 to 3 times. The economic value of wild salmon is on par with the watershed’s forest industry, which is thought to amount to approximately \$120 million per year.

In June 2006, a First Nations delegation including Eugene Bryant of Lax Kw’alaams traveled to Norway where they delivered a statement of protest to the country’s King and attended the Annual General Meeting of the Norwegian corporation Panfish. Their trip resulted in extensive media coverage in Norway and a major Pan Fish investor dumping its shares in the company. That summer, northern First Nations, including the Wet’suwet’en, Gitksan, Gitanyow, and Allied Tsimshian Tribes of Lax Kw’alaams, formally declared the Skeena a fish-farm free watershed.

Our activities continued with another fundraising banquet in Smithers in September of 2006, featuring Yvon Chouinard, the founder of Patagonia and of the One Percent for the Planet initiative, and author Tom McGuane. Later that fall, a delegation from Friends of Wild Salmon took 5,000 signed declarations in support of a fish farm free north to be presented at the provincial legislature in Victoria and held a wild salmon banquet nearby. In January 2007, Gerald Amos of the Haisla First Nations took over from Andrew Williams as Chair of FOWS and in April, we organized the Salmon Summit 2 to highlight the opposition of

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First Nations, commercial fishermen and recreational anglers to fish farms.

As the Sustainable Aquaculture Committee travelled to the communities affected by existing or proposed fish farms, they heard from many members of the public opposed to aquaculture as well as from industry spokespeople. When the Committee arrived in Prince Rupert in June 2006, they were welcomed by several hundred First Nations elders in full regalia with the Friends of Wild Salmon logo, "The True North: Fish Farm Free." In every community they visited along the Skeena, in the early summer and later in the fall, the committee members heard the passionate voices of First Nations, tourism operators, lodge owners, sportfishermen and ordinary citizens emphasizing the contribution of healthy wild salmon runs to the economy, to food, to the animals, to the forests, to our way of life.

The Pan Fish licenses at Kitkatla lapsed and were not renewed, and when Pan Fish major shareholder, John Fredericksen, declared that fish farms should not be placed near wild salmon rivers, it became more and more obvious that the company had no interest in moving where they were not welcome. So, Friends of Wild Salmon decided that rather than wait for the provincial government to declare our waters fish farm free, we would do so ourselves. In April 2007, we held a wild salmon banquet in Prince Rupert to thank Robin Austin for listening to us and to celebrate our "victory." When the Sustainable Aquaculture Committee released its report the following month, its primary recommendations affecting the North were that there be no new finfish sites approved north of Cape Caution; that the existing Klemtu sites be grandfathered subject to negotiations between First Nations of the area and Marine Harvest; and that there be a transition to ocean-based closed containment in any expansion in Klemtu, as elsewhere in the province.

Then we waited, and waited for the Liberals to respond to the recommendations. We wrote many letters to Premier Campbell and Minister Bell requesting a response. The only response was a disturbing one: Bell granted several new fish farm and

shell fish licenses, some north of Cape Caution. Then finally, in March, the provincial government announced a ban on fish farms in the North, but far short of Austin's recommendation of Cape Caution. An order in council and a moratorium south of the Skeena we decided was about as good as we were going to get, so we declared victory.

But, as MLA Austin has pointed out, while the ban is a victory for those of us who have worked so hard to protect the wild salmon and steelhead of the Skeena, Nass, Kitimat and other rivers of the north, it is still a very limited one. The provincial government continues to drag its feet about responding to the other recommendations, including dealing with the issue of sea lice and their impact on the wild pink and chum salmon of the Broughton Archipelago. It's been over a year now since the Report came out, and still there is no official response.

It's a bitter sweet victory for Friends of Wild Salmon if all we've done is add to the pressure on salmon in the south, but by declaring the north off limits, the province has at least acknowledged that fish farms are a threat to wild salmon. Now we are waiting to see whether the Liberals will take seriously the recommendation to move the industry to closed containment. The recent proposal from Marine Harvest to move some farms away from migration routes and search for investment funds for closed containment pens has received support from some members of Coastal Alliance for Aquaculture Reform, and criticism from others. The supporters of FOWS' campaign can breathe a sigh of relief that unlike our southern friends, we were able to avoid these difficult compromises because we kept our waters fish farm free!



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