A
fter more than nine years of
tough negotiations, on February
18, 2010, the Governors of Cali-
ifornia and Oregon, the Secretary of Inte-
rior, a representative of the Secretary of
Commerce and the private utility com-
pany PacifiCorp – together with more
than 30 other Parties to the Klamath set-
tlement negotiations, including PCFFA
& IFR – all signed the Klamath Hydro-
power Settlement Agreement (KHSA)
intended to secure the final removal of
the four FERC-licensed Klamath Hydro-
power Project dams (J.C. Boyle, Copco
1 & 2 and Iron Gate Dam) and restore
salmon access to more than 600 stream
miles of productive habitat they have
been excluded from for 90 years.

Together with the major water
reforms required by the Klamath Basin
Restoration Agreement (KBRA), earlier
released on January 15, 2008, these
two parallel Agreements chart a new
pathway for the Klamath Basin out of
decades of water crisis, salmon declines,
policy gridlock and litigation. Togeth-
er these two Agreements outline a bold
new pathway to fully restore the third
largest salmon producing river system
on the US West Coast – the Klamath Riv-
er.

In the midst of our industry’s cur-
current struggles to halt dramatic declines in
the salmon runs of the California Central
Valley, and in the 17th year of continu-
ing litigation and gridlock over the fate
of the Columbia River salmon runs, PCFFA’s
recent successes on behalf of salm-
on in the Klamath Basin provide some
hope that the ongoing declines of salmon
runs we depend on for much of our live-
lihoods can eventually be reversed else-
where. That success story also shows that
dam removal and fundamental water
reforms necessary for salmon survival
can be achieved – with patience, persis-
tence and by building politically strong
coalitions.

**Dams, Rivers and Salmon in the Klamath**

The Klamath Basin is larger than
several US states, covering about 15,688
square miles, or slightly more than 10
million acres. The basin lays roughly
two-thirds in California and one-third in
Oregon. Basin rainfall ranges from near-
lly 100 inches/year in the coastal rainfor-
est to less than 12 inches/year in its arid
high-desert Oregon headwaters. Because
it is split by state lines, political fragmen-
tation is also endemic in the basin.

The Klamath Basin was historical-
ly also the third-largest salmon produc-
ing river system in America, after only
the Columbia and Sacramento-San Joa-
quin. Before European development,
the Klamath is estimated as having pro-
duced between 660,000 and 1.1 million
returning adult salmonids every year,
with an average of 880,000. Today, how-
ever, more than 90 percent of its salmon-
carrying capacity has been destroyed in
the pursuit of narrowly construed riv-
er “development” goals and the ensuing
massive loss of habitat.

Lost habitat means declining salm-
on populations. Coho salmon in the
Klamath are both federally and state-list-
ed under their respective Endangered
Species Acts (ESA). Spring run chinook
in the basin, once abundant above the
dams, are also nearly extinct. Fall-run
chinook is the only remaining reason-
ably healthy run from the Klamath – and
that run has been reduced to less than
10 percent of its historic abundance in
many years. In years like 2006, in which

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_The Advocate for the Independent Fisherman_

_Glen Spain, for PCFFA_

_“The great thing in this world is not so much where we stand as in what direction we are moving.”_

_Oliver Wendell Holmes_
that run cannot even meet its minimum 35,000 “spawn-er floor”; these declines have meant widespread ocean salmon season closures over 700 miles of northern California and southern Oregon coastline.

Today the heaviest impact on Klamath salmon production by far comes from a series of power dams built without fish passage, along the Klamath River near the California-Oregon border—four in particular built between 1918 and 1967, owned by PacifiCorp (aka Pacific Power), a privately owned but publicly regulated utility providing power to about 560,000 Oregon and 40,000 California customers. The four dams combined have generated only about 220,000 acres is now irrigated as part of the federal Bureau of Reclamation Klamath Irrigation Project. In 1905, the then newly formed Bureau of Reclamation filed Oregon state water right claims to “all the water then available” in Upper Klamath Lake, which feeds the Klamath River, to divert for purposes of irrigation. This allows them to take effectively unlimited amounts of water from Upper Klamath Lake, so long as they can use it for irrigation. Prior to recent federal Endangered Species Act (ESA) constraints, the Klamath Irrigation Project typically diverted up to 435,000 acre-feet of water from Upper Klamath Lake for this purpose, with the higher diversions in the driest water years – thus exacerbating the impacts of all droughts on lower river salmon.

At least another 110,000 acres of irrigated lands also exist that are hydrologically above the federal irrigation Project, along the Williamson and Sprague Rivers, which feed Upper Klamath Lake. These lands either divert water directly from the flows to Upper Klamath Lake or irrigate from groundwater pumping, some of which could be reducing nearby stream flows by curtailing inflows from aquifer springs. A big source of water conflicts in the upper Klamath basin revolves around ESA protections both for resident fish in Upper Klamath Lake and for coho salmon below the dams. In the case of ESA protections for fish, water over-allocation led to a major confrontation between the ESA and state-based water rights during the near-record drought of 2001, during which many Klamath Project farmers who were dependent upon federal project water deliveries found themselves coming up short or losing their anticipated water deliveries (and their crops) altogether that year, causing serious economic losses to these Project-dependent farmers and resulting in a sharp political backlash.

However, in 2002 the Bush Administration over-reacted to this backlash, and in a widely publicized (but politically driven) move it ordered full irrigation deliveries to the Klamath Project irrigators even during the continuing near-record drought, thus seriously shorting salmon protections in the lower river. The result in 2002, as predicted by federal, Tribal and state biologists whose objections were politically over-ridden, was the largest adult fish kill in US history in which an estimated 70,000 adult spawning salmon died in the lower Klamath River before they could reach their spawning grounds.

These devastating 2002 spawning losses, combined with already serious water quality problems created by the dams, were both major contributing factors in the Klamath fall chinook salmon fishery collapse of 2006 (because of their life-cycle there is always a 3-5 year lag time relationship between high mortalities of outgoing chinook juveniles and fewer returning harvestable adults). This 2006 fishery disaster triggered widespread ocean salmon season closures over more than 700 miles of coastline, at an estimated cost of at least $100 million in economic losses. Smaller, but still serious, fishery declines also occurred in 2005 and 2007 from these same causes.

These back-to-back water, farming and fisheries crises in 2001, 2002, 2005, 2006 and 2007 resulted in rotating economic disasters throughout the Klamath basin, punctuated by nearly constant litigation and political gridlock over these years. This series of disasters amply demonstrated the desperate need for change in the Klamath basin to farmers and fishermen alike.

The fortuitous 2006 expiration of PacifiCorp’s 50-year FERC license and the looming decision on what to do with its five mainstem dams then created both the deadlines and the incentives for negotiating these changes through that vehicle.

Why A Negotiated Settlement?

Some people still believe that there was no need to negotiate with PacifiCorp and that FERC would eventually order the dams down. Unfortunately, FERC has never in its entire history forced a dam relicensing applicant to remove a dam against its wishes, absent a negotiated settlement to do so.

The odds are thus very strongly against FERC order-
ing these dams down absent a negotiated settlement of the sort the KHSA represents. Indeed, in the FERC Final EIS the FERC Staff Recommendation was for full relicensing with only a few minor tweaks – a pathway that was not even legally possible, as FERC staff themselves admitted (FERC, 2007).

 PacifiCorp still has an active FERC relicensing application pending but suspended. The only remaining legal barrier to PacifiCorp obtaining full FERC relicensing is that PacifiCorp must first obtain Clean Water Act Section 401 certification from two state water agencies. By law, FERC cannot grant a new license unless those two agencies first give the project state clean water law clearances through a Section 401 certification.

 Unfortunately, although the California Water Board might deny the 401 Certification outright, it is far more likely it will simply condition it – conditions which PacifiCorp might be able to meet, or whittle down through litigation to meet, again giving them a new 30- to 50-year FERC license. And in Oregon, its Department of Environmental Quality (DEQ) has far fewer tools than California that it can use to assure good water quality, plus water quality problems generally are much less serious at J.C. Boyle Dam in Oregon than behind the California dams, and so PacifiCorp’s proposed water quality mitigation measures might be far more effective as well as less expensive at J.C. Boyle. It was therefore not at all certain that Oregon DEQ would in fact “just say no” to a state Clean Water Act Section 401 Certification for relicensing J.C. Boyle Dam, or that if the Department did so it would ultimately win in court.

 The Klamath Hydropower Settlement Agreement (KHSA) certainly has its own uncertainties and contingencies. If it can be made to work, however, this negotiated settlement route gives us far more certainty of obtaining four-dam removal and a free-flowing river by 2020, as opposed to the real likelihood that the regular FERC relicensing track would not.

 Key Elements of the Hydropower Agreement

 No dam, and no FERC license to operate dams, lasts forever. The Klamath dams are also old dams, some dating back to 1918, and do not meet modern dam environmental standards. Several were built without fish passage of any sort, illegal under current law. This means that the company that owns the dams, PacifiCorp, is faced with only two legal options: (1) relicense the dams by retrofits them to modern environmental standards, including installing expensive fish passage, or; (2) decommission and remove them and replace them with more efficient and less costly power sources elsewhere.

 Since neither option will be cheap, PacifiCorp customers will have to pay slightly higher rates to cover these costs regardless of which option is chosen. The real question is, which option will be cheaper for PacifiCorp’s customers? The State PUCs will not allow PacifiCorp to recover its costs for either option unless they are convinced the option chosen is the most prudently incurred (read here “cheapest”) for the company’s customers.

 Though more studies are being done, several studies to date (including a study by the California Energy Commission and another by FERC itself) indicate that dam decommissioning and removal will be the much cheaper option for PacifiCorp’s customers as well as the most effective at protecting and restoring damaged salmon fisheries. FERC, in its Final Environmental Impact Statement (FEIS), for instance, calculated that if all four dams were relicensed with the required fish passage and other mandatory conditions installed, they then would operate at a $20 million/year financial loss under any new FERC license. Obviously it would not make much sense for PacifiCorp or its customers to subsidize a net loss of revenues by keeping dams that are functionally and financially obsolete.

 Deciding Whether or Not to Remove the Dams

 Under the KHSA, the final decision on whether or not to remove the dams will be federalized. The Secretary of Interior must make that decision by March 31, 2012, based on a thorough NEPA environmental impacts analysis and additional studies.

 The states of California and Oregon have also reserved their respective rights to sign off on the Secretarial Determination, and both must concur with that determination within 60 days of its issuance. Though this state “right of concurrence” has been criticized by some as

 an unnecessary off-ramp, as a matter of law neither state can declare its resources nor issue state permits for such a project without formal state approval.

 Who Will Pay for Removal, and How Much?

 Until more detailed engineering studies have been completed, nobody can very accurately estimate just how much removal of the four mainstem Klamath power dams (and transfer of the Keno flow regulation dam) will actually cost. This is why the KHSA sets aside a contingency “State Cost Cap” fund of up to $450 million for this dam removal purpose. However, as a precautionary measure, the State Cap Cost is actually much larger than the likely costs of removal by a factor of perhaps two to three times.

 There is some comfort in knowing that FERC itself estimated four-dam removal costs at only $79.9 million, and that other studies have come in between $37.5 million and $102.4 million. All these engineering estimates were, however, preliminary.

 In the negotiations it was also decided that roughly equal contributions toward dam removal should come from each of the two states in which the dams sit. However, all but about 45,000 of PacifiCorp’s customers within these two states reside in Oregon, so PacifiCorp’s contribution would come primarily from its approximately 560,000 Oregon customers.

 It should be emphasized that under the current negotiated Settlement Agreement, if PacifiCorp removes the
As a practical matter, it will probably take about ten years from execution of the KHSA to jump through all the NEPA, CEQA, permit and probable litigation hoops necessary to get to physical removal by 2020 anyway. Similar dam removal projects have taken as long or longer. However, during that interim time the Klamath Trust Fund rate surcharge account will continue to build up funds to pay for dam removal, with the full $200 million projected to be reached in early 2020 in parallel with obtaining all the required permits.

The necessary preparation for dam removal, of course, has already started — and indeed, could be said to have started several years ago as part of making the FERC record. Oregon Klamath Trust Fund collections began in February of 2010, and California’s are likely to start in March of 2011 once approved by that state’s Public Utilities Commission. Interest from the accumulating Klamath Trust Fund can be used to pay for the preparatory steps toward final physical removal as we get closer to 2020.

How Will the River Be Protected During the Interim?

Under the KHSA there are a number of “Interim Measures” that PacifiCorp will pay for and implement that will help to keep water quality and other conditions in the Klamath River from deteriorating any further during the interim period between now and the 2020 dam removal target date. These are expected to cost PacifiCorp several million dollars a year to perform (see KHSA Appendices C & D).

In addition, PacifiCorp will also be responsible for meeting its later Klamath mainstem TMDL pollution control requirements that will be adopted by Dec. 31, 2010. A later TMDL Implementation Plan will be worked out between PacifiCorp and the relevant water quality agencies of each state.

What About Replacement Power?

While the Klamath dams do provide some hydropower that is CO2 neutral, they do not actually provide very much power — only about 88 MW of power on average, less than 2 percent of PacifiCorp’s power generation as a company. Moreover, they also cause enormous damages to the Klamath River’s once-abundant salmon fisheries and create serious water quality problems. A power source that kills salmon in such large numbers is not in any environmental sense true “green power.”

The 88 MW of hydropower that the Klamath Dams create can be easily replaced by true “green power” elsewhere. PacifiCorp is already committed to bringing 1,400 MW of such renewable power online (mostly wind power) by 2015 as part of the deal it made with the state PUCs when the company was purchased by MidAmerican Energy Company in 2006.

KHSA Weak Points

There are two primary weak points in implementing the KHSA, including problematical California “Water Bond Act” funding. The $250 million bond funding mechanism for California’s contribution to the “State Cost Cap” is unfortunately entangled in California’s thorny water politics. The Safe, Clean, and Reliable Drinking Water Supply Act (approved last November by the California Legislature as SBX7-2) contains the Klamath bond money but only as a small part of a massive $11.14 billion dollar water bond measure that contains many highly controversial provisions having nothing to do with the Klamath.

Many people believe the Water Bond Act is a stealth mechanism for jamming through construction of the infamous “peripheral canal,” which would ship even more northern California water away from the damaged San Francisco Bay Delta than occurs today. Not only do many see this as a southern California water grab, but the peripheral canal would have devastating impacts on key Central Valley salmon runs that depend on the ecological health of the Delta for their survival. PCFFA has opposed those unrelated provisions for that reason.

A second weak point is the disposition of Keno Dam. A new pre-condition to the Secretarial Determination in the KHSA is that a transfer agreement still has to be negotiated between PacifiCorp and the federal government for the transfer of PacifiCorp’s Keno Dam, presumably to the Bureau of Reclamation. Keno is part of PacifiCorp’s current FERC license, and remains under FERC jurisdiction until that transfer.

While nothing in these negotiations seems insurmountable, this additional contingency does add more
complications to an already complicated deal. Negotiations over these transfer requirements are now ongoing.

The KBRA and Water Reforms to Help Salmon

Turning to the other part of the Klamath salmon problem – lack of enough water in the river – the parallel Klamath Basin Restoration Agreement (KBRA), which deals primarily with water reforms for salmon in the upper basin, includes a number of major actions to increase instream flows higher than historic (i.e., 1960-2000) practices by providing between 130,000 and 230,000 additional acre-feet of water to Upper Klamath Lake to flow downstream, with the exact amount varying annually depending on total rainfall. These measures include:

Reducing and Placing Permanent Caps on Future Federal Irrigation Project Diversions

The KBRA establishes limitations (for the first time ever) on the currently essentially unlimited federal water right to divert “whatever water is available” under the Bureau’s 1905 water right from upper Klamath Lake for irrigation use in the Klamath Reclamation Project. The Department of Interior and Yurok Tribe have estimated that this water right limitation, capped at no more than 330,000 acre-feet in dry years (up to no more than 365,000 in wet years), will result in as much as 100,000 acre-feet additional water to the river in the driest water years. This new restriction reverses the historic situation in which Project irrigators typically got more water in dry years than in wet ones – thus exacerbating the impacts of all droughts on the lower river and its salmon. This “diversion cap” will eventually become an absolute limit on the Bureau of Reclamation’s Irrigation Project future water right.

Upper Klamath Basin Water Use Reduction Program

Upper basin irrigation water demand reduction should be shared equitably between Project and non-Project farmers. The KBRA therefore also establishes a voluntary water right retirement program for the Wood River, Sprague River, Sycan River (excluding the drainage from the Sycan Marsh upstream), and the Williamson River (from the confluence with the Sprague River upstream to Kirk) that will be designed to reliably secure an average of an additional 30,000 acre-feet of upper basin water for inflow to Upper Klamath Lake from non-Project irrigators. This program also includes a voluntary program to improve fisheries habitat, and provides federal regulatory assurances to landowners in these sub-basins who participate.

Creating Additional Winter Water Storage

The KBRA includes additional obligations to enhance water conservation and provide for further water storage. Specific commitments to increase the water supply into Upper Klamath Lake include completing the breaching of levees in the Williamson River Delta to add approximately 28,800 acre-feet of additional storage; reconnecting Barnes Ranch and Agency Lake Ranch to Agency Lake to add approximately 63,700 acre-feet of additional storage; and reconnecting Wood River Wetlands to Agency Lake to provide approximately 16,000 acre-feet of additional storage. Together these measures will generate approximately another 100,000 acre-feet of water annually to use for fish restoration. One of these projects – the Williamson River Delta Project – has been more or less completed, and the other two are well along in planning and permitting and will be funded through the KBRA.

Immediate Flow Improvements

Most important, the Agreement provides for an immediate “Interim Water Bank Program” to provide improved interim Klamath River flows and maintain Upper Klamath Lake levels for the first few years of the KBRA, until the permanent additional water can be fully secured. The purpose of this Interim Program is to “increase, to the extent technically feasible, the amount of water in the Klamath River and Upper Klamath Lake toward the amounts which will result from the permanent instream water enhancement measures during the interim period while those measures are being phased in.”

In other words, the fish will not have to wait 10 years or more for their additional water under this deal – they start getting it immediately. The Agreement also has multiple provisions to ensure that all the additional “environmental water” generated by the diversion reduction and storage programs of the KBRA will remain in Upper Klamath Lake or the Klamath River permanently to benefit the fish.

Rebuilding Fisheries

The KBRA also launches an aggressive 50-year salmon habitat restoration as part of its Fisheries Programs throughout most of the Klamath Basin. The goals and purposes of the Fisheries Programs are clearly stated as to: 1) restore and sustain ecological functionality and connectivity of historic fish habitat; 2) re-establish and maintain naturally sustainable and viable populations of fish to the full capacity of restored habitats, particularly above the dams, and; 3) provide for full participation in harvest opportunities for the fish species of concern, which include all the naturally occurring species (and races of species) in the basin, including salmon and steelhead. These Fisheries Programs will be pursued in two phases, before and after dam removal.

What Does This Settlement Mean for Salmon?

What does all this mean for lower river salmon and ultimately for west coast salmon?
ocean salmon fishermen? It means between 130,000 and 230,000 acre-feet more water annually for the fish, and with dam removal not only far better water quality but also renewed salmon access to more than 600 additional stream miles of once fully occupied spawning and rearing habitat.

Over time and after dam removal, Klamath-origin salmon runs could easily double, perhaps even triple, over their current average annual numbers. And most important, this ultimately means far more fish for harvest throughout the Klamath Management Zone (KMZ), and far less likelihood of future Klamath-driven salmon closures coast wide. This of course also means many more jobs and dollars in salmon-dependent coastal fishing communities who will then have access to better and more reliable salmon harvests throughout the KMZ.

This is a goal well worth fighting for, and the fact that we are now on the road to getting there via the Klamath Settlement Agreements should give great hope to commercial fishermen that at least in the Klamath area there will still be a prosperous salmon fishery for the next generation.

We here at PCFFA will continue working hard to do the same thing in the Sacramento-San Joaquin and in the Columbia Basin as well as all along our coastlines. If the Klamath example shows anything, it is that significant long-term salmon restoration can be achieved – if we fight at least as hard as the salmon do, and if as an industry we persevere and build more politically powerful alliances to get the job done.

Glen Spain is Northwest Regional Director for both the Pacific Coast Federation of Fishermen’s Associations (PCFFA), the West Coast’s largest organization of commercial fishing families, and for PCFFA’s affiliate organization, the Institute for Fisheries Resources (IFR). He has been both organizations’ Lead Negotiator in the Klamath Settlement Negotiations since they began in 2000, and has been involved in Klamath Basin fisheries restoration efforts since at least 1985. He can be reached at the PCFFA/IFR Northwest Regional Office at PO Box 11170, Eugene, OR 97440-3370, by phone to (541)689-2000, or by email to fish1ifr@aol.com.