**Statement of Jeff Reardon, Maine Brook Trout Project Director, Trout Unlimited**
**U. S. House of Representatives, Committee on Natural Resources,**

**Oversight hearing titled: Mandatory conditioning requirements on hydropower: how federal agencies are driving up electricity costs and decreasing the original green energy.**

June 27, 2012

Mr. Chairman:

Thank you for the opportunity to testify before the House Natural Resources Committee on the mandatory conditioning authorities afforded the federal resource agencies under the Federal Power Act (FPA). My name is Jeff Reardon. I am the Maine Brook Trout Project Director for Trout Unlimited (TU), a national non-profit conservation organization with more than 140,000 volunteers organized into 400 chapters from Maine to Alaska. Our mission is to conserve, protect and restore North America's coldwater fisheries and their watersheds. TU chapters invest thousands of volunteer hours on their local streams and rivers to restore habitat for trout and salmon fisheries, and they invest considerable time in conducting youth conservation camps and taking kids fishing.

TU works with partners to fulfill our mission. TU staff and volunteers work with state agencies to clean up pollution from abandoned mines, with farmers and ranchers to improve riparian habitat and restore stream channels, and with western irrigators to improve water management and restore stream flows. TU also works with sportsmen and -women who care about protecting great fishing and hunting places on public lands.

TU believes strongly in the principle of working collaboratively to achieve meaningful conservation results that provide benefits to a variety of stakeholders, including hydropower utilities and electric ratepayers. I have been fortunate to work with TU for 13 years, and increasingly our work in Maine has succeeded in finding cooperative solutions to vexing challenges.

TU has consistently applied this collaborative conservation process to hydropower relicensing over the past 20 years. I have personally been involved in the relicensing of more than 20 hydroelectric dams. As a member of the Penobscot Trust, TU currently is an owner and operator of three dams in Maine as part of a project that will soon remove or decommission the dams, while our partner Black Bear Hydro, LLC will replace the lost power through hydropower enhancements at other dams.

Based on our experience, I believe that the relicensing process is getting better and better over time for catalyzing solutions that balance the needs of the hydropower industry, the fish and wildlife resources of our rivers, and most importantly, the citizens of our nation. Mandatory conditioning authorities are critically import tools for achieving this balance which, among other things, is essential for sustaining quality hunting and angling opportunities and the $76 billion in economic activity attributable annually to hunting and angling.[1] Maine's sport fishing industry alone is valued at more than $257 million per year.[2] In our experience, the resources agencies have been judicious in how they apply these valuable authorities.

Because there has been so much "water over the dam", let me take a few moments to describe how we got to where we are today.

**The FPA, mandatory conditions and balancing river uses**

Hydropower is an important source of energy for the nation. Among its strengths are that it does not cause air pollution or produce radioactive waste, such as other power sources do, and that fuel costs for the power producer are zero. But in many places hydropower development has devastated fisheries and other aquatic resources. Hydro dams block upstream and downstream fish migration; they alter upstream and downstream habitat; and they injure or kill fish that pass through turbines or over spillways. Construction and operation of private and public hydropower dams have been especially harmful to migratory fish such as salmon, river herring, shad, striped bass, and eels over the past 150 years.

[1] http://www.census.gov/prod/2008pubs/fhw06-nat.pdf
[2] http://www.census.gov/prod/2008pubs/fhw06-me.pdf

For example, in a 2004 report on Atlantic Salmon in Maine, the National Research Council identified dams as "the single most important class of impediments to salmon recovery that can be influenced by human actions," and identified fish passage improvements as an "urgently needed action".[3]

To attempt to provide some balance of river uses while encouraging and regulating hydropower, the Federal Power Act was established in 1920. The Act mandated the Federal Energy Regulatory Commission (FERC) to grant licenses for hydropower projects. Because of the poor record of success in mitigating losses to fisheries from hydro dam operation and construction, Congress passed the Electric Consumers Protection Act in 1986. Signed by President Reagan, the law amended the Federal Power Act. It required that FERC "give equal consideration to non-power generating values such as the environment, recreation, fish, and wildlife, as are given to power and development objectives when making hydroelectric project licensing decisions." The U.S. Fish and Wildlife Service (FWS), NOAA Fisheries and the Forest Service, with whom we commonly work, are three of the agencies which have the authority to impose conditions to require dams to allow fish passage and to mitigate fish population and fish habitat losses where needed. In exchange for abiding by these conditions, and the others placed on the projects by FERC, hydro dam operators get long term licenses to use the river to generate power, from 35 to 50 years. These long license terms, combined with no fuel costs, provide dam owners the opportunity to recover capital expenditures required as a condition of the license.

The new authorities, combined with a huge wave of project relicensings in the 1990's, strained the ability of FERC and resource agencies to make the law work effectively. There were some very positive outcomes, such as the Avista project on the Clark Fork which I will highlight in a moment. But some hydropower industry representatives, states, and conservationists had legitimate complaints about the way FERC and the resource agencies implemented the 1986 changes. TU and other river conservationists worked very hard with FERC and the resource agencies to seek improvements over the past 20 years.

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[3] National Research Council, 2004. Atlantic Salmon in Maine.

One such improvement was the establishment of a cooperative licensing process, in which stakeholders and the licensee work together from the very inception of relicensing to the conclusion—from the early studies to permit approval—to find common ground and durable solutions. Nonetheless, some of the industry went to Congress seeking dramatic, weakening changes to the mandatory conditioning authorities. In 2005, Congress rejected substantial weakening of the mandatory conditions but did make changes to the law.

Provisions in the Energy Policy Act of 2005, signed into law by President Bush, generally place a higher burden of proof on the resource agencies to justify their conditions, and provided a "trial type" hearing mechanism to allow industry and other stakeholders to challenge the proposed conditions.

States also have mandatory conditioning authority through the Clean Water Act, through which they can protect their water quality standards by adding conditions to hydropower licenses. In states such as Maine, this authority has also proven to be very useful in mitigating damage to fish habitat and in catalyzing meaningful environmental improvements with little or no loss of generating capacity.

Clearly, fisheries and river recreation and local economies have benefited from the FPA. But have we lost generating capacity? In most places, no. According to FERC, changes required by the relicensing process, including mandatory conditions, result in an average per-project generating loss of only 1.6%. The Kennebec River basin in Maine, where I've done the bulk of my work, offers proof that power generation and fisheries can be better balanced. From 1993-2006 FERC relicensed 16 of 25 dams in the basin. FERC approved surrender and removal of 3 dams, as well as approving operational changes at most of the remaining dams. The net result? In-basin hydro generating capacity was reduced by about 3%.

And the environmental results have been dramatic. The Sebasticook River, a tributary to the Kennebec, which saw construction of two fishways and removal of the Fort Halifax Dam, now supports the largest run of river herring on the east coast, with more than 1.7 million river herring passed via the new fish lift at the Benton Falls this spring. Two Maine communities have already regained the historic alewife fishing rights they lost when Edwards Dam was constructed

in 1837, and other communities are eager to join them. In addition to fish passed upriver at Benton Falls, these commercial fisheries harvested more than 500,000 herring for use as bait by Maine's lobster industry. The lower Kennebec River supports a popular and growing recreational fishery for American shad, and striped bass, once restricted to below the head of tide, now range more than 20 miles upstream to provide a new recreational fishery in the Kennebec and its tributaries. A unique salmon restoration program on the Sandy River, site of another dam removal, has generated the best egg-to-smolt yield of juvenile Atlantic salmon in the U.S.

For freshwater resident fish, improved minimum flows and habitat restoration projects funded by project licensees have resulted in improved production and growth of native brook trout, and better protection for native lake trout that spawn in some headwater reservoirs.

And for recreational anglers and other river users, there is vastly improved public access, and more predictable flow scheduling has enhanced recreational fishing opportunities by improving angler safety, while also providing more certainty for Maine's whitewater boating community.

All of these changes were achieved through settlement agreements with the dam owners that were designed to satisfy legal requirements, but also to maximize fisheries and recreation benefits while maintaining hydropower generation.

To repeat, despite the fact that these changes included decommissioning three dams, basin-wide loss of power was less than 3%—significantly less than year-to-year variation based on precipitation.

**Cooperative licensing processes are on the rise**

Over the past 10 years, relicensing has become a far more cooperative process, with great benefits to fish, fishing, hydropower production, and local economies. And at reasonable costs. TU is strongly supportive of the cooperative process. It requires a greater up-front investment in time and effort from all involved, especially the licensee, but the rewards can be great. The company, agencies, and river stakeholders can establish working relationships, implement

mutually beneficial study and work plans, develop and consider options together, and together make mutually beneficial decisions.

Very simply, in our view the cooperative process is natural resources decision-making at its best. These are local solutions which benefit the companies, fish, recreation and local economies. We salute companies such as PPL in Maine, Portland General Electric in Oregon, and Avista in Montana and the Northwest for their willingness to show the way forward, and reap the rewards from it in terms of licenses granted by FERC in a timely manner, and holding costs down.

**Local solutions, local successes**

There are a growing number of significant project successes which demonstrate the benefits of the cooperative relicensing process.

Clark Fork Project in Western Montana (Avista Power)

In the Clark Fork basin, Avista worked with nearly 40 organizations, including TU staff and volunteers, over several years to create the Clark Fork Settlement Agreement. The agreement applies to the Clark Fork Project License, which includes the Noxon Rapids and Cabinet Gorge hydroelectric developments. The settlement agreement contained 26 protection, mitigation, and enhancement measures which Avista began implementing ahead of schedule. Likewise, FERC issued the new license one year before the existing licenses expired. The working relationships formed through the cooperative licensing process have endured through project implementation in the form of the Clark Fork Management Committee, which meets regularly to approve and monitor implementation efforts.

The Clark Fork Project has made great progress in protecting and restoring habitat in the basin, including:

- Transporting bull trout over Cabinet Gorge Dam for the first time in 50 years, in an attempt to reestablish historic migration routes.
- Restoring over a mile of Twin Creek (an important bull trout spawning stream) to its historic channel through a multi-party effort lead by TU and partially funded by Avista.

- Purchase of 871-acres of wetland and riparian habitat along Bull River, the largest tributary to Cabinet Gorge Reservoir. These purchases will allow preservation of existing wetland and riparian habitat.
- Obtaining more than $300,000 in grants to leverage existing funds.
- Receipt of the National Hydropower Association's Outstanding Stewardship of America's Waters Awards award in 2000, 2001, 2002, 2003, 2004, 2005, and 2006.
- Significant improvements to recreational facilities such as Pilgrim Creek Park.

Pelton Round Butte Project, Deschutes River, Central Oregon

The Portland General Electric Company and Confederated Tribes of the Warm Springs Indian Reservation, after initially competing against each other to relicense the 350 megawatt Pelton Round Butte Hydroelectric Project on the Deschutes River in central Oregon, convened a massive, multi-year, effort that brought together groups representing industry, tribal, conservation (including TU), agricultural, municipal, and county interests. Reintroducing ESA-listed salmon and steelhead in the Crooked, Metolius, and middle Deschutes rivers upstream of the project was the centerpiece of the new license and mitigation package. In 2009, PGE and the Confederated Tribes of the Warm Springs completed a fish intake and bypass project at the Pelton Round Butte Hydroelectric Project dam, which will enable Chinook salmon, sockeye salmon, and steelhead to complete their natural life cycle in the Deschutes River basin for the first time in 40 years.

Additional terms and conditions provided for recreation and enhanced sustainability in the rural communities located near the project. Further, the reintroduction effort has lead to additional resources being dedicated to the Deschutes River basin, and addressing watershed health issues for the benefit of small Oregon towns attempting to diversify their economies. Local entities like the Three Sisters Irrigation District have been able to secure mitigation dollars associated with the relicensing effort to modernize their water diversion, delivery, and use systems in a way that streamlines operations while at the same time providing additional streamflows and restored access to over 20 miles of historic steelhead habitat on Whychus Creek.

Penobscot River Project, PPL, Central Maine

Perhaps the most creative hydroelectric project that TU has worked on, the Penobscot River Restoration Project is an unprecedented collaboration among the Penobscot Indian Nation, seven conservation groups, hydropower companies PPL Corporation and Black Bear Hydro, LLC, and state and federal agencies. On the Penobscot, a Multiparty Agreement resolved decades of arguments over fish passage, hydropower, and issues important to the Penobscot Indian Nation. The core of the project is a plan for the Penobscot River Restoration Trust, the non-profit organization charged with implementing the agreement, to purchase and remove the two lowermost dams on the Penobscot River, and purchase and decommission a third dam at the mouth of the Penobscot's largest tributary, where a fish bypass will be constructed. Combined with improved fish passage on the remaining dams, the project will improve access to over 1,000 miles of river habitat for 11 species of sea-run fish. Enhancements to the remaining hydropower dams will offset any power losses from the three decommissioned dams.

**Conclusion**

These examples show that where companies, agencies, and stakeholders work collaboratively, the relicensing process can result in outcomes that meet the needs of the hydropower industry, the fish and wildlife resources of our rivers and the industries they support, and the public. TU urges the committee to foster more of these successes by:

1. Encouraging the federal resource agencies to seek cooperative approaches to solving hydropower relicensing challenges, and

2. Helping to provide the resources that the agencies need to get the job done well.

Thank you for the opportunity to testify.