

## Historical Case for Fish Stocking the High Lakes in the North Cascades (including recent scientific conclusions)

### Preface

Much of this “tour” through the history of fish stocking in the North Cascades was gleaned and guided by the excellent book “*Contested Terrain: Administrative History*,”<sup>1</sup> written in 1998 by David Louter. Louter was employed at the time by the National Park Service (NPS) as a professional historian. In spite of the excellence of Louter’s book, it was so broad in scope that it excluded much of the detailed history critical to a full understanding of fish stocking in the area now known as the North Cascades National Park Complex (NOCA).<sup>2</sup>

As part of the NOCA Environmental Impact Statement (EIS) on fish stocking begun in March of 2003, Louter wrote a white paper entitled “*The Fish-Stocking Controversy*” to add the missing detail. Although Louter’s white paper was a welcome contribution, several important events were either skipped or characterized in a way that favors the NPS’s general preference for removing already introduced fish species from national parks on the ideological grounds of wilderness values. Specifically the white paper spends little time discussing either the historical rationale for the continuation of fish stocking in the NOCA, or the remarkable scientific evidence that has accumulated showing no measurable impact on park ecosystems when fish stocking is properly managed.

This “*Historical Case for Fish Stocking the High Lakes in the North Cascades*” document is meant to remedy these aspects of Louter’s white paper by presenting the historical case for fish stocking in the NOCA from actual documents and records – including the documented written or spoken words of notable figures who directly participated in this history (e.g., members of Congress, officials of the NPS). It also draws heavily from Louter’s “*Contested Terrain*” book (given its neutral character) to chronicle the various events that occurred during this fascinating 40-year history.

Woven throughout this history is an example of the equally fascinating corollary issue of conflict between federal and state rights in the management of wildlife on federal lands.

The scientific evidence pertaining to fish stocking in the North Cascades comes primarily from the Liss & Larson report: a comprehensive, 15-year, million dollar study of the north Cascades alpine lake ecosystems conducted by Oregon State University and completed in 1999.<sup>3</sup>

### Early History

This paper will not attempt to review the history of fishing and the park before 1963. It was in 1963 that the “*Study Team Report*”<sup>4</sup> effort was launched by the then new Kennedy administration. The history of the fish stocking controversy essentially dates from the initiation of this study. As far as earlier history,

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<sup>1</sup> Louter, David. *Contested Terrain: North Cascades National Park Service Complex An Administrative History*. Seattle: National Park Service, 1998[Hereafter cited As “Contested”]

<sup>2</sup> The North Cascades National Park Complex (NOCA) includes the North Cascades National Park (NCNP) and the surrounding Ross Lake and Lake Chelan National Recreation Areas. Although not technically correct, the names NOCA and NCNP are sometimes used interchangeably in the literature.

<sup>3</sup> *Ecological Effects Of Stocked Trout In Naturally Fishless High-Elevation Lakes. North Cascades National Park Service Complex, WA, USA: Phases I, II, III*. April 1999.

<sup>4</sup> Dept of Interior and Dept of Agriculture. *The North Cascades: A Report to the Secretary of Interior and the Secretary of Agriculture*. October 1965.

suffice it to say that the area now occupied by the NOCA was always admired for its exquisite beauty and many people did many things to focus attention on its preservation and proper use. During this early period the federal lands which eventually became the park were administered by the Forest Service (FS) under its “many uses” mandate.

### Study Team Report of 1965

The Study Team Report almost never happened. There was a call to do a study of the North Cascades area as early as 1959 by Congressman Pelly, but the effort became bogged down in jurisdictional disputes between the FS and the NPS.

This theme of jurisdictional disputes arose time and time again over the next decade. Which agency and which land and wildlife management policy/culture was to prevail? Those who preferred using land and wildlife for the benefit of the surrounding people favored the Forest Service structure; whereas those who were concerned with preserving the land and wildlife looked to the NPS structure.<sup>5,6</sup>

The debate over how to balance these two competing views, policy sets, and cultures was intense. The logjam at this time was finally broken with what became known as the “Treaty of the Potomac.” This “treaty” between the two agencies paved the way for the study team to do its work. The study was completed in October 1965 and released to the public on January 6, 1966.<sup>7</sup>

Ed Craft, Chairman of the study team, termed the study a “*compromise proposal*” since the team members remained heavily split, and said “*undoubtedly the most controversial*” aspect of the study was whether there would be a park at all. (The alternative being to allow the land to continue to be managed by the FS.) Craft’s compromise proposal claimed that a park should be established for the purposes of “*mass recreation use.*” It was clear to all involved on the study team that however a park was established, traditional uses of the land such as fishing and camping could not be excluded in a major way. These concerns would become one of the primary reasons for the eventual creation of a park complex consisting of a national park and national recreation areas. Compromise on public use versus preservation was evident from the very beginning and all through the remaining history of the NOCA.<sup>8</sup>

### The Creation of the North Cascades Park Complex

US Senator Henry Jackson held committee hearings in Seattle on February 11-12, 1966 to get public input on the Study Team Report. Hundreds of statements and communications were heard or received. Fishing was one of the areas addressed by the committee members and the public as they considered this statement made in the Study Team Report in the Resources section:

*“Fishing would not be affected because fishing, habitat development, and stocking are allowed in a National Park.”<sup>9</sup>*

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<sup>5</sup> Contested, pp 37-43

<sup>6</sup> Jurisdictional disputes continue into the present; although the players tend to be the NPS and state wildlife agencies.

<sup>7</sup> Contested, pp 37-43

<sup>8</sup> Contested, pp 37-43

<sup>9</sup> U.S. Congress, Senate, Committee On Interior And Insular Affairs, North Cascades-Olympic National Park. *Hearings On The Study Team Report Of The Recreational Opportunities In The State Of Washington, February 11 And 12, 1966.* 89th Cong., 2d Sess., 1966. pp 26. [Hereafter cited As “Hearings #1”]

As well as Recommendation XX in the Other Recommendations section:

*“The State of Washington and concerned Federal agencies should take all reasonable measures to protect and manage the fisheries resource, to improve habitat, and to increase levels of fishing use.”*<sup>10</sup>

Senator Jackson introduced Senate Bill 1321 on March 20, 1967<sup>11</sup> and scheduled hearings in various cities during April and May of 1967 to get further public reaction to the Senate bill, which had been based on the recommendations of the Study Team Report.<sup>12</sup> The desire to continue the fishery and hence fish stocking was expressed by several dignitaries:

*“Fishing, of course, would be a permitted use in both the national recreation area and the national park.”* Stewart Udall, Secretary of the Interior.<sup>13</sup>

*“I further recommend that in the Wilderness Areas fishing and hunting be administered by the State of Washington...I recommend that the North Cascades National Park be managed according to traditional National Park criteria. Fishing would be permitted, but hunting would be prohibited.”* Statement of Daniel Evans, Governor of the State of Washington as read by John Biggs<sup>14</sup>.

An exchange between Senator Jackson and John Biggs, Director of the Washington State Department of Game.<sup>15</sup>

Biggs: *“...the necessity for active restocking programs has clearly been proven...Such a program of stocking is essential for the reason these waters offer little or no potential for natural restocking.”*

Jackson: *“What you are saying is that the Park Service has a tendency to limit the stocking of fish within the lakes of the national parks?”*

Biggs: *“I would feel so, Mr. Chairman”*

Jackson: *“What is the situation in this area at the present time with reference to the stocking of fish?”*

Biggs: *“It is handled by the State of Washington through its Department of Game.”*

On April 20, 1968 Congressman Meeds introduced House bill HR 8970. There were competing bills at the time but HR 8970, almost identical to Senate bill 1321, was the one eventually passed by the House. Hearings were held on these House bills in April and July of 1968.

The following very telling exchange occurred between Congressman Lloyd Meeds, Congressman Morris Udall, and National Park Service Director George Hartzog during a hearing on these House bills. The exchange seems to make clear to the Committee members that fishing and fish stocking would be permitted in the proposed park. This exchange was later referred to by State of Washington officials and

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<sup>10</sup> Hearings #1, pp 34

<sup>11</sup> Contested, pp 47

<sup>12</sup> U.S. Congress, Senate, Committee On Interior And Insular Affairs, Subcommittee On Parks And Recreation, *Hearings On S. 1321, A Bill To Establish North Cascades National Park*. 90th Cong., 1st Sess. 1967. pp 1-2. [Hereafter cited As “Hearings #2”]

<sup>13</sup> Hearings #2, pp 12

<sup>14</sup> Hearings #2, pp 48

<sup>15</sup> Hearings #2, pp 51-53

citizens as part of the basis for their belief that the establishment of a National Park would not interfere with the state's highly successful stocking program for the high lakes in the area.<sup>16</sup>

Meeds: *"Mr. Campbell, this is the second time I have heard this statement today and if I may, Mr. Chairman, I would like to ask Mr. Hartzog, Director of the Parks, a question which I do not know the answer to, through Mr. Campbell."*

Udall: *"If you are willing to run the risk of the answer, I will let you ask Mr. Hartzog."*

Meeds: *"Mr. Hartzog, I see in this testimony a statement that the Park Service 'limits planting of fish in lakes with no native fish populations that are now planted by the Forest Service and the State game department working together.' Is that a true statement?"*

Hartzog: *"It is not, and I do not know how on earth this information goes around, Mr. Meeds. We have an active fish-planting program in every single major park and for many years we had a Fish and Wildlife Service hatchery operated in Yellowstone National Park. Now, if the stream already has its limit of fish comparable with its food-carrying capacity, then obviously, we do not engage in put-and-take fishing program. But, we plant fish in practically every area that I can think of off the top of my head now, including all of our major national parks."*

Meeds: *"Thank you, Mr. Chairman, I really did not know the answer. I heard that twice this morning and it was my understanding the Forest Service did allow planting of fish. I am glad to get that cleared up"*.

David Louter summarized the establishment of the North Cascades National Park (NCNP) in his history as uniquely contentious, indicating it came about only because of compromise, and that this did not bode well for future parks: *"as the bitter fight to create a park in the North Cascades demonstrates, those areas that remained outside of the park system faced great political odds against their conversion into national parks."*<sup>17</sup> Unlike other previous parks, the NCNP was possible in large measure because of the compromises that were made and committed to by all sides that formed the basis of consensus. As Chairman Dr. Craft indicated when the Study Team did its initial work, concessions were made by the NPS in order that there would be a park at all.

### Park Administration

Park administrators have sought to implement procedures to manage the lands and wildlife of the NOCA since its creation. These efforts have usually taken the form of repairing previous damage, and then instituting policies and management plans which allow for the continued recreational use of the park by the public. These policies and plans allow managers to minimize the impact of public use while permitting the use to continue.

These efforts are most clearly demonstrated in relation to trails and camping. The following are a series of quotes from Louter's history that demonstrate how this process unfolded.

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<sup>16</sup> *Hearings Before The Subcommittee On National Parks And Recreation Of The Committee On Interior And Insular Affairs House Of Representative. 90th Congress, 2nd Session On Hr 8970 And Related Bills. July 13,1968. pp 854. [Hereafter cited As "Hearings #3"]*

<sup>17</sup> Contested, pp 60

*“Popular places have been littered and denuded, the trees hacked up, the flower meadows trampled or laced with trails and the few level spots strewn with fireplace scars.”* 1970, Roger Contor, first Superintendent of the NCNP.<sup>18</sup>

As seen in the next quote, these abuses were addressed in a management plan that corrected the abuses and insured that abuse would not occur again. Note however that these management plans did **not** eliminate these traditional uses.

*“This backcountry and its fragile alpine ecosystems must be managed carefully to prevent damage by visitors and livestock. Corrective measures will involve revegetation of the denuded areas; improvement of the surface, grade, and drainage of trails; elimination of fires and overnight camping in the more fragile locations.....”* 1970, Roger Contor, Superintendent NCNP.<sup>19</sup>

Similarly, and given the promises made by congressional representatives and Park Service administrators, fishing and fish stocking might well have been expected to follow a like program of corrective measures. In other words, one might have expected Park Service administrators to implement management plans that healed past abuses while allowing the continued use of NCNP lands for the recreational purpose of fishing – just as was done for the hiking, backpacking, and camping.

However, after the Leopold Report and the coming of biologist Robert Wasem to the park in the early 1970’s, a full scale effort was made not to manage high lake fishing, but rather to eliminate it. Louter says that in 1975, Superintendent Lowell White, *“instituted a new policy for the park’s high mountain lakes stating, in essence, that the agency would no longer stock naturally barren lakes and would not restock those lakes into which native trout had been introduced....”*<sup>20</sup>

The Washington State Game Department (WDG) certainly did not accept this unilateral abandonment of the use of fishing by the NPS. After loud complaints of foul by the state, NPS Regional Director Russell Dickenson decided to use a NPS variance *“to affirm our commitment to fish stocking”* in July 1975.<sup>21</sup>

But according to Louter, *“the fish-stocking issue was not fully resolved in the 1970’s...and would flare up again...in the 1980’s.”*<sup>22</sup> Superintendent John Reynolds in 1985 once again attempted to eliminate the stocking of fish in the high lakes to be in keeping with the NPS policy of no fish stocking, inspired by the Leopold Report. According to Louter, Reynolds was intent on bringing the NCNP in line with the other, older parks in the National Parks system, and he was concerned about how fish stocking in the NCNP would set precedent for other parks.<sup>23,24</sup> This conflict between the NPS and the WDG was at least temporarily resolved by a policy set forth by NPS Director William Mott in a memorandum dated June 12, 1986 to the Acting Director of the Pacific Northwest Region.

*“In developing our reply to your request, we have considered both information regarding the impact of introducing fish into naturally fish-free lakes and also the record of the testimony concerning the establishment of the North Cascades Complex.”*

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<sup>18</sup> Contested, pp 102

<sup>19</sup> Contested, pp 110-112

<sup>20</sup> Contested, pp 116

<sup>21</sup> Contested, pp 119

<sup>22</sup> Contested, pp 120

<sup>23</sup> Contested, pp 240-242

<sup>24</sup> Apparently, the unique conditions and commitments surrounding the establishment of the park as documented here were not taken into account by Reynolds.

*“In summary, with the three above classes of waters (fish-free waters, self-sustaining fish populations and fish-stocked waters) we will provide for an enhanced recreational fishing experience in the park while at the same time assuring that we provide the opportunity for aquatic research under natural conditions. In this regard, it would be desirable for your office to develop and implement a research effort that (a) establishes current fish and aquatic habitat baseline conditions in park waters; (b) monitors carefully the impacts of this fish-stocking guidance on fish and other wildlife; and (c) determines changes over time referenced against current baseline conditions or against undisturbed natural conditions where they are known. These data will help provide an informed basis for determining whether changes in our fish-stocking management actions may be needed in the future.”<sup>25</sup>*

Furthermore, in a remarkable demonstration of political unity, a letter was written by four influential national politicians from the State of Washington (Senators Gorton and Evans, and Congressmen Dicks and Swift) urging that the NPS take into account the commitments regarding historic uses made when the park was created.

*“We understand that the Superintendent of the North Cascades National Park recently decided to prohibit the longstanding practice of planting fish in high alpine lakes in the Park. We also understand that you are reviewing this decision, and we urge you to reconsider it.*

*We are aware of the present policy of the National Park Service to manage ecosystems in their natural state. As a matter of general policy, we agree that it is an important role of the national parks to preserve natural ecosystems. The North Cascades National Park complex, however, presents a unique situation. The Park and the Recreation Areas were created with a specific recognition for the historic uses to which the area had been put.”<sup>26</sup>*

This memorandum and letter set the stage for a dialog between the NPS and the Washington Department of Wildlife (WDW), formerly the WDG, for the development of a management plan in 1987 for these high lake waters which provided the “historic use” of fishing the state considered promised when the park was created. However, the devil being in the details, the NCNP and the WDG came to disagree strongly on which lakes fell into which categories as laid out in the Mott memorandum of 1986. As described by Louter, WDW Director Wayland and NCNP Superintendent Reynolds were each backed in a corner with threats of unilateral action made by both sides. The negotiations were at loggerheads and seemed destined for court action until William Horn, Assistant Secretary for Fish, Wildlife, and Parks intervened and asked the agencies to work out their differences.<sup>27</sup>

With this intervention by Horn, the NCNP and the WDW signed a Memorandum of Understanding (MOU) on July 12, 1988 listing the lakes to be planted. That MOU is still in effect as of this writing having been reaffirmed and extended several times.

In a letter from William Horn to the WDW, Horn not only encouraged cooperation between the state and federal agencies, but he also promised that the NPS would undertake development of a high lake fishery management plan based on a scientific data collection and analysis.

*“The National Park Service is undertaking an intensive research project to develop a proper data base to support decision-making about the future role of fish stocking in the management of recreational fishing in the park.”*

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<sup>25</sup> NPS Director William Mott to the Acting Director of the Pacific Northwest Region. June 12, 1986. File N1423, NOCA.

<sup>26</sup> Senator Slade Gorton, Senator Dan Evans, Congressman Al Swift, And Congressman Norm Dicks to Letter To William Mott, Director, NPS. June 25, 1986.

<sup>27</sup> Contested, pp 244

*“The results of the research will be used to support development of a publicly reviewed recreational fishery management plan”<sup>28</sup>*

This reemphasized essentially the same commitment made a year earlier by Charles Odegaard, Regional Director NPS, in a letter to Jack Wayland, Director WDG:

*“Some naturally, fish-free waters may be stocked contingent on the design concept of a research project.”<sup>29</sup>*

The door was thus left open not only for a fully managed fishery, but also interestingly enough for a fishery not necessarily limited to the lakes previously included in the MOU<sup>30</sup>. The scientific study promised by Horn began soon thereafter in 1988 and continued for nearly 15 years. The study included researchers from Oregon State University and is commonly known today as the Liss & Larson study. A key conclusion resulted from the Liss & Larson study: non-reproducing, low density fish populations have little or no impact on lake ecosystems. Only reproducing, high density fish populations result in ecological damage to high lakes.

*“There were no significant differences in large diaptomid<sup>31</sup> densities between fishless lakes and lakes with non-reproducing trout populations.”<sup>32</sup>*

*“Lakes with non-reproducing trout will be a crucial component of NOCA's high lakes management plan because the lakes are common within NOCA. Furthermore, many anglers prefer to fish in lakes with non-reproducing trout because trout densities are low and fish often reach a large size. Lakes where trout are incapable of reproducing because they lack adequate spawning areas may offer the most options for future management. In these lakes fish densities can be regulated by controlling both stocking densities and the interval between stocking.”<sup>33</sup>*

In other words, this multi-year, multi-million dollar study concluded that if fish populations are properly managed so that those populations are maintained at low densities, there is no statistical difference between lakes with such fish populations and those lakes that are fishless. Now that this research has been done, the results clearly indicate that periodic stocking of non-reproducing fish in low densities can indeed provide a high mountain fishing recreational opportunity without negative impact on the park ecosystem, just as was offered by Odegaard, Mott, and Horn.

Note that this result of the Liss & Larson scientific research is somewhat counter-intuitive and was not well appreciated by most of the players in this history. One might think (and some figures in this history did think) that the best solution to providing lakes with fish would be to allow the fish to reproduce and thereby alleviate the need to periodically stock them. In fact the opposite is true. Periodic stocking is the **best** way to provide fishing opportunity without ecological damage since non-reproducing populations can be maintained with such stocking.

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<sup>28</sup> William Horn to Jerry Neal. April 28, 1988. File N1619, NOCA.

<sup>29</sup> Charles Odegaard, Regional Director NPS to Jack Wayland, Director WDG. August 1987.

<sup>30</sup> Assuming such inclusion was compatible with the research results.

<sup>31</sup> The most common crustacean zooplankton.

<sup>32</sup> *Ecological Impact Of Introduced Trout On Native Aquatic Communities In Mountain Lakes, North Cascades National Park Service Complex, WA, USA: Phase III Final Report*. July 2002. See Summary of chapter 3.

<sup>33</sup> *Ecological Effects Of Stocked Trout In Naturally Fishless High-Elevation Lakes. North Cascades National Park Service Complex, WA, USA: Phase II*. April 1999. See *Global Conclusions Related To Effects Of Introduced Trout On Native Biota* section of chapter 7.

## The Future

It would seem logical to resolve these long standing disputes, between the state's right to manage wildlife and the federal government's right to manage its lands, by cooperatively analyzing a proposed use of park resources that weighs the recreational benefits of the use against the impacts (in a sort of cost/benefit analysis). There is little question as to the recreational benefits of a high lake fishery to park visitors. Additionally there are financial benefits to the State of Washington with license sales, and economic benefits to local businesses. As for impact, the recent scientific evidence strikingly concludes that low density stocking has little, if any, impact on the ecosystems involved.

The historical record presented above makes it clear that the fishery managed by the state for so many years was to continue in conjunction with NPS management after the Park's creation. This is apparent in the historical record, and reinforced in the subsequent Memorandum of Understanding signed in 1988. Given these considerations, it should be clear that both the state and federal government have an opportunity to continue to provide significant high lake fishery recreational benefits to citizens with extremely low environmental risk.

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