

*American Rivers ♦ Association of Northwest Steelheaders  
Coastal Trollers Association ♦ Columbia Riverkeeper ♦ Defenders of Wildlife  
Earth Ministry/Washington Interfaith Power & Light ♦ Environment Washington  
Great Old Broads for Wilderness ♦ Greater Hells Canyon Council  
Idaho Conservation League ♦ Idaho Rivers United ♦ Idaho Wildlife Federation  
Institute for Fisheries Resources ♦ National Parks Conservation Association  
Natural Resources Defense Council ♦ Nimiipuu Protecting the Environment  
Northwest Guides and Anglers Association ♦ Northwest Sportfishing Industry Association  
NW Energy Coalition ♦ Oceana ♦ Orca Network  
Pacific Coast Federation of Fishermen's Associations ♦ Save Our wild Salmon Coalition  
Sierra Club ♦ Spokane Riverkeeper ♦ Trout Unlimited ♦ Wild Orca  
Wild Steelhead Coalition*

January 24, 2022

Secretary Gina Raimondo  
U.S. Department of Commerce  
1401 Constitution Avenue NW  
Washington D.C. 20230

Janet Coit, Assistant Administrator  
NOAA Fisheries  
1315 East-West Highway  
Silver Spring MD 20910

**Re: Snake River Salmon and NMFS' 5-Year Status Review**

Dear Secretary Raimondo and Assistant Administrator Coit,

We write to thank you for the Biden Administration's recent commitment to seek urgent action to restore Columbia and Snake River salmon in the face of accelerating climate change - and we ask that you take the opportunity of the forthcoming National Marine Fisheries Service's (NMFS) 5-Year Status Review of ESA-listed Snake River salmon and steelhead, to help set a new course that can reverse the extinction emergency these fish face.

Our 28 organizations represent tens of million Americans, millions of Northwesterners, and hundreds of Northwest businesses. The extinction of wild Snake River salmon and steelhead is unthinkable in its national and Northwest consequences. Yet extinction is close to certain without prompt, major change in federal policy and action. Your leadership is indispensable to secure that change, and the transition actions that must accompany it.

**THANK YOU.** We are grateful for your role as part of the Biden Administration's commitment to develop a comprehensive solution by July 2022 that improves river conditions for salmon and averts the Columbia-Snake salmon extinction crisis by working with states, tribes, and other stakeholders. The former Administration's salmon plan would have led straight and soon to Snake River salmon extinction. We thank the Administration for stepping back from that brink.

Thank you also for your statement that the Columbia-Snake Basin provides "a key refuge from the effects of climate change" on salmon. NMFS research confirms this important fact, but to date that science has barely affected federal policy. In the urgent effort to avoid extinction and restore a healthy abundance of Snake River salmon and steelhead, NMFS should press for actions based on this fact.

**STATUS REVIEW FOR SNAKE RIVER SALMON.** NMFS' 5-year Status Review for ESA-listed Snake River spring/summer Chinook, fall Chinook, sockeye, and steelhead will be released this spring. This will come in the midst of work by the Administration, Northwest leaders and tribal nations to develop and implement actions that can reverse the looming extinction of these species. The Status Review will be an indicator, and can be an instrument, of Administration readiness to make the major change in federal policy that your predecessors have failed to make. We will focus on three issues at the heart of this review.

**1. *Extinction Crisis.*** Scientific evidence is abundant that wild Snake River spring/summer Chinook salmon, sockeye salmon, and steelhead face an extinction emergency. The Status Review should clarify that the recent downturn and long-term trend is alarming, and that the increased frequency, magnitude, scope and duration of downturns occurring as the climate changes, is rapidly increasing extinction risk. Even if nature provides some welcome relief in 2022 (e.g., La Nina and more snowpack), the status review should be clear that the overall pattern of these downturns is dangerous and will likely accelerate under climate change.

Separate analyses by the Nez Perce Tribe and Oregon Department of Fish & Wildlife conclude that one-fourth to nearly one-half of Snake River spring/summer Chinook tributary populations already average *50 or fewer adult spawners per year*, and with current trends, one-third to three-fourths will be at that level within five years. For Snake River steelhead populations, one-sixth to one-fifth are at that dire level now, and one-half to two-thirds will be so within five years. (These and other citations can be found at the end of this letter.)

Fifty or fewer adult spawners per year, for four consecutive years, is NMFS' definition of a "Quasi Extinction Threshold" (QET). At QET, avoidance of absolute extinction can no longer be assumed or predicted. In the Status Review, we request your close attention to the Oregon and Nez Perce analyses, and your own assessment of current extinction thresholds and risks for Snake River populations in the face of advancing climate change (analyses which were not provided in NMFS' 2020 Biological Opinion for these species). These analyses should transparently inform recommendations for action.

**2. *Climate Change.*** NOAA scientists have led diagnosis of current and likely future damage to endangered Snake River salmon and steelhead from human-caused climate change. Most recently, we reference Crozier et al 2019, Crozier et al 2020, and Crozier et al 2021. (The 2021 study specifically examines eight Snake River spring/summer Chinook populations.) These studies cannot be summarized easily, but one quotation illustrates their overall thrust:

"The urgency is greater than ever to identify successful solutions at a large scale and implement known methods for improving survival. Management actions that open new habitat, improve productivity within existing habitat, or reduce mortality through direct or indirect effects in the ocean are desperately needed." (Crozier et al 2021, at 9; emphasis added).

Events are confirming this urgency every year. For example, lethal and sub-lethal hot water in the impounded Columbia and Snake Rivers is now routine for two or more months each summer, as adult Snake River salmon and steelhead migrate home. In 2015's hot water, 95 percent of endangered Snake River sockeye salmon counted at Bonneville Dam did not survive to Lower Granite Dam. In 2021's hot water, 70 percent did not survive, and video captured salmon suffering heat-caused lesions and injury. (References below.)

Additional scientific analyses, including by NOAA scientists, have concluded that restoring the lower Snake River to a free-flowing condition would provide large-scale climate resilience, by greatly improving salmon access to and from the cold high-altitude tributaries of the Salmon,

Clearwater and Grand Ronde rivers. Such access is indispensable to restoring Snake River salmon.

NOAA's 2015 Status Review for Snake River salmon and steelhead had a climate change section and recommended more research into its effects on the species. But it did not recommend any "desperately needed" "large-scale" management actions to "open new habitat, improve productivity within existing habitat, or reduce mortality...in the ocean." We request that the 2021 Status Review contain such action recommendations, including for the most deadly freshwater habitat affecting all Snake River salmon and steelhead – the 320 miles of federal dams and reservoirs on the lower Columbia and lower Snake rivers.

**3. Recommendations.** The 2021 Status Review, if it mirrors previous reviews, will contain NMFS' "recommended future actions" to address the extinction crisis engulfing Snake River salmon and steelhead. We request that NMFS explicitly use this section to inform the search for a comprehensive solution, by July 2022, that the Administration has committed to seek. Thus we ask that NMFS focus on recommendations that will deliver the biggest beneficial effects for all Snake River populations, as opposed to, or in addition to, actions that will take decades to bear fruit, and benefit particular stocks only.

NMFS' 2015 Status Review provided recommendations addressing harvest, hatcheries, and habitat (defined to exclude most main-stem migratory and spawning habitat) for Snake River species. It provided no recommended actions for "hydro" – that is, the most degraded and deadly essential habitat that all Snake River salmon face. A similar approach this time will badly serve the search for comprehensive solutions. We ask that all freshwater habitats for Snake River salmon be addressed in recommendations.

As you know, Senator Murray and Governor Inslee have put whether and how to restore the lower Snake River, by replacing its four federal dams, at the center of their search for comprehensive solutions. If the Status Review is not the place NMFS tackles that issue, the Review, and Columbia Basin Partnership's recovery goals, should lay the biological foundation for your role in the Administration's decision on the lower Snake dams. To do so, NMFS should ensure the Status Review is accurate for the short- and long-term, considers extinction risk plainly, and affirms the conclusion of NOAA science that major management changes are urgently needed, in the face of climate change, to stabilize and then recover Snake River salmon and steelhead.

Thank you for considering our requests. As you know, NMFS' last five Biological Opinions for federal dam operations affecting Snake River salmon have been ruled illegal in federal court and have failed to halt the species' descent to extinction. For three populations, that descent is now a plunge. We ask that you embrace the opportunity to correct both trends in the 2021 Status Review and in the search now underway for an immediate, comprehensive solution.

Sincerely,

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CC: Barry Thom, West Coast Regional Administration, NOAA-Fisheries

**REFERENCES: LETTER TO SECRETARY OF COMMERCE GINA RAIMONDO AND  
ASSISTANT ADMINISTRATOR JANET COIT  
JANUARY 24, 2022**

**I. Extinction Emergency:**

***Nez Perce Analysis:*** Johnson, D., Hesse J., & Kinser R. April 27, 2021. Nez Perce Tribe staff presentation on their analysis of Snake River Basin Chinook and Steelhead – Quasi-Extinction Threshold and Call to Action [PowerPoint presentation to the Northwest Power and Conservation Council.]

[https://www.nwcouncil.org/sites/default/files/2021\\_05\\_4.pdf](https://www.nwcouncil.org/sites/default/files/2021_05_4.pdf)

***Oregon Department of Fish and Wildlife Analysis:***

Second Corrected Declaration in support of Oregon’s Motion for Preliminary Injunction (8.19.2021)

<https://www.wildsalmon.org/images/factsheets-and-reports/2021.8.19.Corrected.Bowles.Decl.pdf>

Exhibit 1: ODFW analysis of population status relative to QET, accompanying Second Corrected Declaration above (8.19.2021)

<https://www.wildsalmon.org/images/factsheets-and-reports/2021.8.19.Exhibit.1.Bowles.Decl.pdf>

See also: *Report to NOAA Fisheries for 5-Year ESA Status Review: Snake River Basin Steelhead and Chinook Salmon Population Abundance, Life History, and Diversity Metrics Calculated from In-Stream Pit-Tag Observations (SY2010-SY2019)*. January 2020. Ryan Kinzer (NPT), Rick Orme (NPT), Matthew Campbell (IDFG), John Hargrove (PSMFC/IDFG), Kevin See (Biomark ABS).

**II. Climate Change:**

Crozier, L.G., McClure, M.M., Beechie, T., Bograd, S.J., Boughton, D.A., Carr, M., Cooney, T.D., Dunham, J.B., Greene, C.M., Haltuch, M.A., Hazen, E.L., Holzer, D.M., Huff, D.D., Johnson, R.C., Jordan, C.E., Kaplan, I.C., Lindley, S.T., Mantua, N.J., Moyle, P.B., Myers, J.M., Nelson, M.W., Spence, B.C., Weitkamp, L.A., Williams, T.H., Willis-Norton, E. 2019. Climate vulnerability assessment for Pacific salmon and steelhead in the California Current Large Marine Ecosystem: PLoS ONE. <https://doi.org/10.1371/journal.pone.0217711>.

Crozier L. G., J. E. Siegel, L. E. Wiesebron, E. M. Trujillo, B. J. Burke, B. P. Sandford, and D. L. Widener. 2020. Snake River sockeye and Chinook salmon in a changing climate: Implications for upstream migration survival during recent extreme and future climates. PLoS ONE 15(9): e0238886.

<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0238886>.

Crozier, L.G., Burke, B.J, Chasco, B.E., Widener, D.L., and Zabel, R.W. 2021. Climate change threatens Chinook salmon throughout their life cycle. Available at:

<https://www.nature.com/articles/s42003-021-01734-w.pdf>.

**III. Water Temperature:**

NMFS, [2015 Adult Sockeye Salmon Passage Report](#), p. 7 (2016) (“ESA-listed Snake River sockeye salmon were especially affected in the mainstem migration corridor, with losses exceeding 95% between Bonneville and Lower Granite dams.”)

*Columbia Basin Bulletin*, [Managers Kept Lower Granite Reservoir Cool During Hot Water Year, But ESA-Listed Sockeye Slammed Farther Downstream: ‘Smoking Gun’](#) (December 2, 2021) (NMFS employee Trevor Conder explained that Bonneville to Lower Granite conversion for sockeye in 2021 was “barely 30%.”)

[Lower Snake River Dam Removal Temperature Modeling White Paper by Columbia Riverkeeper](#). 2017 (showing that restoring the river by removing its four dams would reduce temperatures to allow salmon migration in the summer and fall). The Environmental Protection Agency has [found](#) that the lower Snake River dams are the main source of temperature pollution on the 140-mile Lower Snake.

**Videos:** *Salmon Dying from Hot Water*. July 16, 2021.  
<https://www.youtube.com/watch?v=ctGzIBiqMNY>

*Salmon Are Dying from Hot Water Featuring Don Sampson*. July 27, 2021.  
<https://www.youtube.com/watch?v=NhGpHGucp7Y&t=15s>

Source: *Columbia Riverkeeper*

#### **IV. NMFS’ Columbia Basin Partnership Recovery Goals:**

**A Vision for Salmon and Steelhead: Goals to Restore Thriving Salmon and Steelhead to the Columbia River Basin.** Phase 2 Report of the Columbia Basin Partnership Task Force of the Marine Fisheries Advisory Committee

See Page 47, Table 8 of  
[https://s3.amazonaws.com/media.fisheries.noaa.gov/2020-10/MAFAC\\_CRB\\_Phase2ReportFinal\\_508.pdf?null](https://s3.amazonaws.com/media.fisheries.noaa.gov/2020-10/MAFAC_CRB_Phase2ReportFinal_508.pdf?null)