FWC Best Available Science Policy

Public Comments

Compiled May 26, 2024

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Comment #1

5/6/2024 4:04 PM

I see many no votes coming from the current liberal democrat commissioners. They have ultimate control in their minds

Comment #2

5/6/2024 4:09 PM

[1] Public comment period ended on May 24, 2024, but the PublicInput website accepted comments through May 26, 2024

I oppose this. This is a waste of time. Too much focus on social science, and not actual biology. Slap in the face to my WDFW staff and bios.

Comment #3
5/6/2024 4:11 PM

I oppose this draft policy.

Comment #4
5/6/2024 4:15 PM

While the thought of this policy has good intentions, there is no timeline for best available science data validity. It is pertinent that the department continues to maintain up to date science data for rule setting purposes and data available should have a 5 year expiry date in order to remain valid, along with continued data points being recorded - which requires years of statistical data to be inputted for repeatability values. For example, you cannot set seasons in GMUs with 10 year old data, you need to consistently monitor to determine and develop cause of decline or increase. A specific example to refer to is the current status of the habitat in wintering areas for Mule Deer and Elk in Kittitas & Yakima County. The land has yet to be replanted 4 years after a burn. Mule Deer and Elk pre burn utilized those units heavily, now there is no wintering browse or cover, the deer and elk populations are very low during annual surveys. It is not that there are no animals, it is there is no sustenance for the animals, which is a failure on WDFW for not properly managing their lands and ensuring habitat and conservation to wildlife. However, in the late summer and fall, these areas are well populated with wildlife utilizing draws for shade, irrigation canals for water and agricultural crops for food sources. The data is erroneous due to time of year it is surveyed. Although helicopter surveys are the most economical and effective route of surveying wildlife, ground surveys are common with other agencies to monitor population throughout the year as well as collaring the game animals to monitor herd movement and spatial analysis.
There also needs to be a consideration input into the policy that allows tribes to provide data (they are monitoring and collecting far more data than wdfw) prior to rule setting to compare and determine flaws in "best available science" data that WDFW has collected. There is continually a difference in data collected between tribal and wdfw data due to funding restrictions within the department. The WDFW has a responsibility per treaty to consider tribal data and continue to conserve and protect wildlife.

Comment #5
5/6/2024 4:30 PM

I would say go for it, but I doubt that the liberal activists on the commission are even capable of comprehending basic science concepts. If in ten years the “best available science” suggests that wolf, bear, and cougar populations are decimating the ungulate population, will these activists follow what this “science” says? I doubt it.

Comment #6
5/6/2024 4:44 PM

1. It appears that your web form requests an email address, and then when one clicks "submit" below that request, their form is submitted, rather than waiting for comment.
2. RE: The Department will inform and develop risk analyses that inform tradeoffs at the
request of the Commission, including the risk of no action. Seems that you might want to evaluate tradeoffs based on the results of your risk analyses.
3. RE: "d". Best available science isn't really defined in this policy, rather characteristics of scientific inquiry are.
4. Best available science and "and to ensure the integrity of scientific information in addressing
decision-critical questions" sort of goes out the window when you fold in "social values, (including risk tolerance) and the professional experience of Commissioners are integral to the decision-making process".
5. If the commission is utilizing the best available science, and scientists of WDFW, why would there be a need for "Commissioners may provide additional scientific references or information for consideration in the development of science products by the Department."
6. If the commission doesn't get the answer from best available science provided by WDFW staff, " In areas of contested interpretation or application of science, or conflicting results of important scientific studies, the information provided by Department staff shall be considered acceptable and sufficient. However, the Commission may request third-party review (vetted with explicit criteria and a transparent process) or the Washington Academy of Sciences to review key scientific disagreements"
7. This statement is unclear "The Commission and Department may request an adaptive management approach to address
risk to resources or opportunity"; I understand "risk to resources" what might be the risk to opportunity?

Comment #7
5/6/2024 4:49 PM

The WDFW Commission is a policy making board, not a science review board. The best available science should be a department created policy that guides how their biologists conduct their studies as they prepare presentations for the commission. The commission is going too far with this effort.

Comment #8
5/6/2024 4:49 PM

Determined by whom?
Let the scientists decide.

Comment #9
5/6/2024 4:52 PM

Once again, the Commission is trying to abandon their duties by re-inventing them. Their mission is to maximize wildlife recreation, with emphasis on consumptive use, based on recommendations from professional WDFW biologists and the director. That is their clear objective, which is often ignored with the present commission, that benefits all wildlife and Washington citizens. There is no need to outsource data that is supportive to the commission's anti-hunting agenda, including 'social science', whatever that is. The professional experience of a commissioner(s) is irrelevant. It is absurd how the commission puts themselves on such a high horse.

Comment #10
5/6/2024 4:52 PM

The Willapa River had a world-class silver salmon run in the late 60's/70s. Then came newbies straight from universities. They started applying science to that fishery. The world-class fishery became a world-class failure. That famous run is gone.
Wouldn't it seem logical to research and restore that fisheries officers 60s method of management? I can get his name if you'd like.
Lew Kono
Poulsbo
iPhone

Comment #11
5/6/2024 4:55 PM

Start selling fishing licence jan I so all catch records from previous year are counted and reported . Maybe better decisions regarding up coming year

Comment #12
5/6/2024 4:57 PM

Start selling fishing licence jan 1st so all catch records can be counted and reported . Maybe better decisions for coming year

Comment #13
5/6/2024 5:14 PM

I like the new policy and agree with almost all of the policy except for the portion of the assessment policy where an assessment may or may not include a collection of new data. What determines whether new data is needed or not needed?
I also have a strong hesitation that scientific data will be the driving factor in decision making. As a hunter I see a steep increase in predators in SW Washington but I'm also seeing a decrease in predatory hunting seasons. What type of publication will be available to show the scientific data used by WDFW to support their ever changing regulations.

Comment #14
5/6/2024 5:21 PM

To qualify to be selected to the wildlife commission it should be mandatory that you be a hunter, fisherman or trapper. You must have purchased a hunting, fishing, or Trapper license for five years or more and be an active participator in the sport.
The commission we have our week on advice and knowledge of hunting, fishing, and trapping as they are appointed by the governor required to have no previous previous experience.

Comment #15
5/6/2024 5:40 PM

As a Washington resident, I have concern over the following sections in the draft Commission Policy on the Use of Best Available Science :
d. The Commission shall use Best Available Science, including Social Science, in decision making. See Attachment 1.
e. The Commission and the Department will be explicit in how natural and social science information is used in conjunction with applicable law and WDFW's legal mandate for decision-making and recommendations. It is understood that while consideration of scientific findings must form the basis for Commission decisions, social values, (including risk tolerance) and the professional experience of Commissioners are integral to the decision-making process.
To do this, social science must first be better defined (there is nothing in Attachment 1 covering this), otherwise any social desires could be interpreted as science. Allowing such "social" science to influence decision making is a slippery slope, and allows for concrete biological evidence to be potentially overruled by subjective desires. We shouldn't be making emotion-based decisions. Recreation of all types in our outdoors has an impact on wildlife sustainability, yet is socially very popular. The new golf course, or the wooded housing development may find tremendous social support, but at the expense of wildlife habitat. Hiking is great for our mental well being, but such intrusions at the wrong time of year can put added stress on wildlife reproduction, resulting in higher mortality rates. Wildlife goals and objectives should be determined solely on scientist provided biological evidence, then decisions made to get us as close as possible to reaching those objectives given the framework our current laws allow. Such tough decisions may not always be socially popular.
Boyd Baumgartner
360-600-0873
baumgartner.boyd@gmail.com

Comment #16
5/6/2024 5:48 PM

Social Science should not have any weight on management of game species. It should be based on the biology and balance of the eco system. When you start placing feelings into it, things become unbalanced and the ecosystem suffers. We already pay for biologists to monitor these things. Let them do their job and listen to them.

Comment #17
5/6/2024 6:28 PM

No! "Science" has been polluted by influences from leftist politicians. This is another tool to ruin a once respected Fish and Wildlife department. No, No, No!
Get Outlook for Android

Comment #18
5/6/2024 6:34 PM

I am a fly fisherman having resided in the state for 24 years. I travel to Oregon for trout these days as the trout are more plentiful and may seem better managed? Could be just the nature of the watersheds. I had been an avid steelhead guy years ago when I used to catch fish! Sol Duc, Hoh, Queets, Stilly and the close to town Sky. Both with guides and without.They were all more productive way back when. Haven't hooked a steelhead since I don't know when. My son recently caught the bug and try as I may, I can't get a steel on his rod. This year we've been on the Stilly, Sol Duc, Klick and the sky.Timing is everything and I get that. Depressing to gear up and get out to no avail. I'm no guru but the the fishing generally sucks in PNW rivers for fly fisherman in my experience. I'm getting a full year license for Oregon this year and plan to head south for trout. Use the science to bring back our native steelhead.The hatchery system was an effort to fulfill treaty obligations but has turned to be just another taxpayer expense to provide large catch rates and profits for The PeterPan fishery and others to cash in on my tax dollars. We pay for the hatcheries, they go catch the fish and charge us at the market. Feels like I'm paying twice for the fish I don't catch and won't buy at the grocery. Cheers.

Comment #19
5/6/2024 6:37 PM

I am thinking about the Best Available Science draft. I truly believe in managing by science but who determines the best available science? We have seen where the WDFW biologist have stated the bear population can support a spring bear hunt and yet we lost it. Very sad the commission did not follow the biologists recommendations. I am sure you all can understand my concern with some of the commissioners finding bias science that leans to their agenda. I believe if the commission is going to make decisions based off of science we should be using the WDFW biologist data, not outside sources. No more of "I have data from 50 outside scientist that say this..." that should not happen. Do not dismiss our boots on the ground biologists. They were hired because the department thought they were the right people for the job. please give them the respect they deserve, along with the folks running the department. I am very concerned with the ungulate population due to the lack of predator management. I have seen how the populations have suffered from this. Stick to the proven North American Model, open up wolf hunting in areas that are exciding the numbers for the area. Keep cougar hunting the way it is and bring back spring bear.
Thank you for your time,
Lance Johnson

Comment #20
5/6/2024 6:53 PM

This draft policy looks like a veiled attempt by the commission to allow them to ignore department scientists, biologists, and professionals of their fields whenever the biased commission doesn’t agree with the department input. The commission, who are an appointed body, should not be able to ignore department provided science and findings. It is painfully clear that a majority of the commission will do anything to twist facts to suit their anti hunting agenda. If this policy is adopted the commission can just say that they dispute the scientific findings and recommendations of department biologists and receive the biased “science” they choose from a third party. That’s ridiculous. If the commission cannot accept the professional findings and opinions of their department scientists and biologists then the department science should be the final word. The commission should not be able to shop around for results they want just because they don’t personably like what they’re told. The personal opinions of the commission should never be used to make management decisions. Trust your scientists. Trust your biologists. Trust the true professionals who are employed by WDFW. As usual the biased commission will do what they want to appease the anti hunting groups they belong to so I don’t expect anything else at this point. This commission is a complete failure and disappointment.

Comment #21
5/6/2024 6:58 PM

Aren't you already using science to guide your decision making process?
You need to take any bias out of this process. You've mentioned bias twice in your Best Available Science. Please let me know specifically what information you hope to learn. It sounds to me like you want to shut hunting and fishing down through other means, and say, "Look, we now have the data to shut down whatever we want to."
You want to do what California's Game and Fish Department, along with their governor, did. Shut everything down because their best available science says too.
John, I want to know what process needs improving that hunters and fishers can't provide? Is the process getting too complicated? I've watched many YouTube videos from your department, and it always sounds like you're doing a great job of managing our resources.
This is a bad idea and I vote no.
Bob Hamilton
509-890-8856

Comment #22
5/6/2024 7:13 PM

Not interested in this policy. It's designed to be non consumptive. The present commission has already demonstrated a will to ignore the "best available science" resulting in the suspension of spring bear hunts. This behavior continues in current proposals to reduce seasons for black bear & mountain lions seasons in the near future. The North American Model is time tested and my preferred method for wildlife conservation.

Comment #23
5/6/2024 7:18 PM

Social science should NEVER play a factor in WDFW's decision making process. You are scientists, conservationists, and data based decision makers, NOT politicians or social justice warriors. It should be a criminal offense to put any sort of critical decision (e.g. the boneheaded decisions to reintroduce grey wolves and grizzlies with plummeting ungulate populations) and your organization is driving sports men and women to the brink. There are a few of us that are on the verge of fighting back and I can promise that neither the department of fish and wildlife nor the state government officials want this smoke.

Comment #24
5/6/2024 7:50 PM

Hello,
do we fully understand it or are we relying on individuals that can not

relate to the topic of fish and wildlife, science will prove that for the last 1 million years fish,wildlife, birds, plants and even the planet is all balanced out thru mother nature over the years.
yes populations have dropped, they will rebound you just need to do a good job of managing replacement stock and limiting harvest opportunities, you have hatcheries to replenish stock, however i am not aware of a replenishment system for deer,elk,moose etc
be cautious of using the big game system as a revenue and do a better job of tracking animals and their population then set limits accordingly. no out of state would be a good starter, however you need to be willing to lose that revenue. its not rocket science it is wildlife management .
Come on, look around. We have built a system that traps fish in the waterways so now the birds feed on the smolts and the seals feed on the adults. You need to look at every aspect and that does not require science, However it does require common sense and you are serving the citizens of washington state not an out of state individual.

Comment #25
5/6/2024 8:13 PM

It doesn't seem the commission really cares about the best available science based on their latest amendments to cougar hunting…..Why are you going through this process when the science is bypassed for politics.
Disgusted

Comment #26
5/6/2024 8:14 PM

I have zero belief that the best available science really means that in the plainest sense of those words. I would recommend you lead with something such as 'Most Convenient Science' as the public knows what you are trying to do here. Your motives are laid bare by specifically outlining 'Social Science' as factoring in. There is only one reason to include that and it is clearly to make the decisions you and your masters want regardless of department recommendations or the desires of the hunting and fishing public.

Comment #27
5/6/2024 8:17 PM

The main difference between the WAC definition of acceptable science, and this draft policy is the inclusion of "social science" in the draft policy.
It is unclear to me why this distinction is necessary. My concern is that non-fisheries related information will enter into the decision making process. I don't want to see fisheries management decisions made because a social science study says there will be adverse social impacts if a fishery is not maintained (as an example). Clearly social science has no impact on the biology of the fish.
It makes a lot more sense to me for the fisheries management to abide by the same guidelines as the rest of the state government. I don't see any reason why a science based organization like this needs an exception for social impacts.

At a minimum I would expect there to be some justification for this exception to the state administrative code, and clear guidelines regarding the use of social science information.
Thank you for the opportunity to comment.

Comment #28
5/6/2024 9:34 PM

In what world does social science have any bearing on wildlife management? It would be nice to see this commission follow best available science but it is hard to see that happening with what has taken place over the last couple of years regarding predator management. Members of this commission have repeatedly ignored best available science and I have a tough time believing that these same commissioners drafting new policies will have no effect on the steamrolling of our states biologists and the mismanagement of our states wildlife.
I do not support this policy

Comment #29
5/6/2024 9:50 PM

I do not support the change to this new policy, the North American Model of Conversation is time tested and proven. I ask that we trust our state department staff. Additionally I have lost trust for our commission. There is obviously an agenda and I fear decisions will have long lasting negative effects for the future of our wildlife. Please do not move forward with this new policy.

Comment #30
5/6/2024 11:12 PM

The commission already has every bit of science and information it needs to make decisions coming from the biologists. The commissioners need to accept and use the data they are given. It’s literally these people’s jobs to find the data, you just have to implement it. Stop using your feelings and political BS to make decisions.

Comment #31
5/7/2024 5:37 AM

I dont agree with the commissions view of best available science policy. I believe the commission has more of a personal agenda and that is characterized by certain anti hunting members that steer the commission in that direction. If the commission had more of a what's best for the ungulate population we wouldn't be in the mess we are with an over populated predator species.

Comment #32
5/7/2024 5:53 AM

policy G. "The Commission and the Department will seek to avoid bias in their interpretation of scientific studies" half of this commission has done the exact opposite for last few years!!! I think the term best available science shouldn't need a policy, i think its a term that continues to be used as a tool to nit pick staffs information and recommendations. what's next, a policy on worst available science, maybe a policy on mediocre science? I also dont agree how much weight is being put on social science lately, i agree its something that should be considered, but not nearly as much as some think, in wildlife management, do what's best for the wildlife, most of the general public aren't educated enough on wildlife to have an opinion that holds water..

Comment #33
5/7/2024 5:55 AM

Frankly, this policy scares me. The best available is not the best science. The best science is proven over time with sound testing and data analysis to back it up. Please do NOT adopt this nonsense.
Jeromy Evans
Sent from my iPhone

Comment #34
5/7/2024 6:31 AM

In the documents asking for comments, the need for the adoption of this as a policy is not explained. What caused this to become an issue important enough that you have decided it needs a policy to be developed? How are current policies not in alignment with using the best available science? Are decisions being made using the most inferior science? Without some explanation as to why the Big Tent commission is seeking guidance from the public, this has the look and feel of a policy takeover from factions that do not have hunting and fishing communities as primary constituents'. Is someone looking to provide a pry point to turn the commission into a decision making body that uses the easy to manipulate title of "best available science" in order to further an agenda. For this reason I would be opposed to the adoption pending better and more complete explanation. In the meantime, please use the best available science to make your decisions.

Comment #35
5/7/2024 6:42 AM

Please listen to the biologist's data when making decisions. The commission continues to make recommendations and decisions based on emotions instead of using real science data. The health of our wildlife depends on it.

Comment #36
5/7/2024 6:44 AM

This should be the law of the land. Why employ hundreds of biologists and researchers and not follow their guidance? Their guidance will allow future generations to enjoy everything Washington State has to offer. Politics and or personal beliefs have no business in sound fish and wildlife decisions.

Comment #37
5/7/2024 6:56 AM

I have no faith that the current Wildlife Commission will use any science that conflicts with their perceived views of how wildlife should be managed. They demonstrate an utter disregard for science, such as cougar and bear data provided by WDFW, when they don't agree with it. The Commission has lost my trust, and the trust of most of my friends. The Commission needs to earn the trust of its constituents before trying to sugar coat their practices with policies.

Comment #38
5/7/2024 6:57 AM

In attachment 1, in the modeling section, I was wondering if would be more appropriate to replace "occurrences" with "processes".

Comment #39
5/7/2024 7:02 AM

Paragraph a: "The Commission is a policy setting body with statutory authorities and responsibilities to manage public trust fish and wildlife resources and its management decisions should be informed by salient and credible science." Replace "management decisions should" with "management decisions will" The language of "should" implies that the commission can choose to go against credible scientific fact.
Paragraph d: What branch of Social Science will be used in conjunction with biologic and statistical fact? Economics would be an acceptable branch to help base decisions from because it derives from the "hard" science of statistics. Other branches such as political science, psychology, and sociology have no place in the field of biology and ecology.
Paragraph e: "social values, (including risk tolerance) and the professional experience of Commissioners" The social values and professional experience of Commissioners are not valid decision making points. The Commissioners, being Governor-appointed, bring political bias or the perception of it into their decision making. This alone contributes to the overall loss of confidence the general public has against the Commission.

Comment #40
5/7/2024 7:37 AM

Listen to the wildlife bioligist. They said Washington has a healthy bear popultaion yet they denied a Spring bear season. It says in the draft policy that the commissioners will be unbias which is not true. Several commissioners are doing the opposite what the wildlife bioligist advise to do.

Comment #41
5/7/2024 8:06 AM

I am a WA resident. Science based decision making absolutely should be a necessary and critical element of our Commission Policy making. Tools like using DNA for example to track cougar provides solid indisputable data that is extremely valuable in tracking their mating, travel and eating habits. I am very thankful that the Commission realizes and accepts the importance of scientific data in determining the future of our most treasured resources.

Thank you,
Frank Pullo

Comment #42
5/7/2024 8:27 AM

The only science the WDFW should be using to set seasons and harvest needs is the science that the boots on the ground WDFW biologists provide!
Not the science that the Anti-Hunting commission members make up in their head because it fit their anti hunting agenda.

Comment #43
5/7/2024 8:27 AM

The only science the WDFW should be using to set seasons and harvest needs is the science that the boots on the ground WDFW biologists provide!
Not the science that the Anti-Hunting commission members make up in their head because it fit their anti hunting agenda.

Comment #44
5/7/2024 8:37 AM

The inclusion of "social science" has nothing to do with fish and wildlife science. "Social Science - n - the scientific study of human society and social relationships. a subject within the field of social science, such as economics or politics. plural noun: social sciences" This additional "science" seems to be a clear path which enables commissioners to ignore the advice of biologist boots on the ground, based on their subjective interpretation of public attitudes...which is not science at all. Never has a species gone extinct as a result of licensed hunting. The North American Model of Wildlife Conservation (NAMWC) is the envy of the entire sporting and hunting world. Our wildlife populations are abundant and are well-served by wildlife and game departments which adhere to the seven principles of the NAMWC. The duty of our Wildlife Commission is to make decisions which foster that abundance, provide hunting opportunity, and follow the recommendations of our highly-qualified WDFW wildlife biologists.

Comment #45
5/7/2024 8:41 AM

This proposed policy should be rejected outright. Social science is not biology, ecology, geology, forestry, is directly disruptive to the goal of maintaining and perpetuating our natural resources, and has no place in wildlife management. The commissioners who thought this was a good idea should resign in disgrace. I cant believe this was even discussed, much less published.
d. The Commission shall use Best Available Science, including Social Science, in decision making. See Attachment 1.
e. The Commission and the Department will be explicit in how natural and social science information is used in conjunction with applicable law and WDFW's legal mandate for decision-making and recommendations. It is

understood that while consideration of scientific findings must form the basis for Commission decisions, social values, (including risk tolerance) and the professional experience of Commissioners are integral to the decision-making process.

Comment #46
5/7/2024 8:43 AM

Lots of fancy big words won't put fish in the rivers or open up more recreational opportunities. And I understand that most of the existing members were selected by the governor and that not one of them possess a fishing license. What a scam for commercial fisheries and tribes. This fish industry is suffering from lots of folks in a similar manner to flooding issues are milking the process and glad handing each other to get the most money into retirement accounts and longevity of work from it. Simply put, ban gillnets, control the predator population, build smaller hatcheries off smaller streams to enhance fishing and commercial operations which would leave mainstem areas untouched and get this area back to a world class fishery. Why all the miserable fancy words politics has to be involved is beyond my scope of reasonable thinking.
Sent from my iPhone

Comment #47
5/7/2024 8:54 AM

I was sad to see that 'social concerns' will have control over 'best available science'. You should not do that. The policy should be titled 'Balanced Scientific Guidance for the Commission'. It seems like the Commission already puts their political spin on what ever decisions they make (that's part of the job of a commissioner...to take into account 'social pressures', regardless of what the effected population wants. However small politically active (and not balanced) groups seem to usually have the ear of the commission's decisions. The Commission is not all bad...far from it. They have done a reasonable job with the power they are given. I vote to change this draft policy by removing the social science part of it.

Comment #48
5/7/2024 8:58 AM

The inclusion of "social science" has nothing to do with fish and wildlife science. "Social Science - n - the scientific study of human society and social relationships. a subject within the field of social science, such as economics or politics. plural noun: social sciences" This additional "science" seems to be a clear path which enables commissioners to ignore the advice of biologist boots on the ground, based on the commissioners' subjective interpretation of public attitudes...which is not science at all. Never has a species gone extinct as a result of licensed hunting. The North American Model of Wildlife Conservation (NAMWC) is the envy of the entire sporting and hunting world. Our wildlife populations are abundant and are well-served by wildlife and game departments which adhere to the seven principles of the NAMWC. The duty of our Wildlife Commission is to make decisions which foster that abundance, provide hunting opportunity, and follow the recommendations of our highly-qualified WDFW wildlife

biologists

Comment #49
5/7/2024 9:11 AM

Boots on the ground science is the only science relevant, and only science that should influence decision making,

Comment #50
5/7/2024 9:13 AM

The best piece of advice this commission can get is focus on actual animal based science from our biologist. Quit with this social science pandemic that is ruining our states fish and wildlife management through our commission and the push in agendas. We are now seeing within the commission the split in opinion in regards to this agenda and even a number of commission members are calling out on it. The few members on the commission need to focus on actual wildlife management. Not this social science experiment pandemic they are being drawn to. Our animal herds will struggle with this type of behavior. Manage predators within carrying capacity and you will see stronger ungulate populations to follow.

Comment #51
5/7/2024 9:37 AM

Not sure what direction anyone is trying to go with this, I do not support the "social science" tab in this proposal.
It seems this is geared towards enabling a corrupt fish and game commission to be able to do whatever they want without listening to our fish and game biologists like they are supposed to do now.....
Unless this is going to be used to hold the commission to the fire, to make them do their jobs. That's the only way I support this proposal. Otherwise, until I am convinced Otherwise I have ZERO trust for anything being put forward with our commission. The fact that we have to fight for our right to hunt and fish in this state WEEKLY is absolutely asinine. I think I speak for the collective whole when I say we are sick and tired of these games. LEAVE OUR NORTH AMERICAN BIG GAME MODEL THE HELL ALONE, LISTEN TO THE BIOLOGISTS, AND QUIT MESSING WITH OUR RIGHTS AND PRIVILEGES!!!!!!

Comment #52
5/7/2024 9:39 AM

It appears that our current game commission is attempting to re-write the rules for deciding how the public is allowed to use our resources. Are we really considering "social science" as a "Best Available Science"? When the current policy was written, the public wildlife resource was managed for the benefit of hunters, fishermen, hikers and people who view wildlife. Re-writing the policy appears to be a concerted effort to eliminate hunters from that equation. It would be far more honest for our wildlife commissioners to just admit that is their goal, instead of attempting to hide behind

"science" (social science no less) when dictating policy. Fishermen should know that their resources will be next on the chopping block. Sportsmen should know what they are up against in this state.

Comment #53
5/7/2024 11:53 AM

Basing wildlife decision making on social science (including risk tolerance) opens up long ranging policy to the whims of the majority. I would rather our commission rely on biological wildlife data for species management over the feelings of Washingtonians that may have little to no interaction with those species.

Comment #54
5/7/2024 1:35 PM

Social science has absolutely no place in the management of wildlife. The biologist out in the field putting in the hard work is the only science we should be following. Actually listening to biological data and input is the only way we should be making any decisions about wildlife.

Comment #55
5/7/2024 2:08 PM

I urge the Commission to abandon this new policy and just listen to our scientists at WDFW. There is no place for "soft sciences" like social social science in wildlife management. Please put time and effort into more pressing issues like recovering/reintroducing Columbian sharp tailed grouse, marbled murrelets, steelhead, prong horn, caribou, etc.

Comment #56
5/7/2024 4:59 PM

Why are you wasting your time with this? Everyone already knows you only accept science that fits your pro predator anti hunting agenda and you reject any science that goes against that.

Comment #57
5/7/2024 7:32 PM

I am in favor of using sound scientific practices in decision making instead of using emotional arguments.

Comment #58
5/7/2024 9:24 PM

From the interpretation the draft, I believe it is well intentioned but could potentially open more doors to allow people with little to no factual knowledge of wildlife to have say in management. Unfortunately it seems that the commission already takes social science into heavier consideration by allowing the opinions of people with little to no experience in

not only the science behind managing these resources but also the animals and ground being managed to have authority in the process. It is a slippery slope as I believe experienced individuals need to voice opinions and ideas, however it allows the inexperienced and potentially antagonistic public to have detrimental impacts based on feelings. The hard science should determine the rules and regulations. For example, the spring bear season. Biologists provided data showing the washington state black bear population is healthy and can support a spring harvest. The data and biologist opinions to continue a spring permit draw was disregarded and the science was not followed. The season was shut down based on the weight of social science. Anti hunting groups were notified of the public comment and were allowed to state their opinions based on their emotions. The bottom line is emotion should not play a role. Decisions should be made off of the blatant scientific facts. The goal of the wdfw and the commission is to protect and manage wildlife while providing outdoor recreational opportunities in a manner that aligns with the North American Conservation Model. Emotions should not have bearing in those decisions. If the animal numbers are low reduce hunting and or fishing opportunities, if the numbers are at or above goal maintain or increase opportunities. Public opinion and comment has definite value but should have little weight in comparison to the hard scientific data.

Comment #59
5/7/2024 11:20 PM

I would think this had been the policy forever but now explains some of the poor decisions that have been made. If the employs do not have the necessary background for decision making, why were they hired? Does the ultimate person in charge have the proper credentials to be there?

Comment #60
5/7/2024 11:24 PM

It would seem to be preposterous in this day and age that this hasn't
been the policy for many moons.
That explains some of the poor past decisions.
Are the people running things qualified considering using science is now
a possibility, and they seem to have been ignorant of this all the time?
Do you have qualified employs to even follow the "best science"?
John Zey

Comment #61
5/8/2024 5:59 AM

The Washington Fish and Wildlife Commission has a responsibility to the people of Washington, and to the fish and wildlife populations it is sworn to conserve and manage, to use the best possible science to direct management decisions. The recommendations of WDFW biologists must take precedence over personal bias or political opinions. Our American model of wildlife management is based on using scientific experiments, studies, and data, and has been wildly successful. It has become the model that the world looks to. Recent decisions by the Washington Fish and Wildlife Commission suggest that some members are abandoning scientific data when making critical wildlife management decisions, relying instead on personal opinions and bias. This is a dangerous practice that erodes public trust and threatens the health and habitat of our state's wildlife populations.
I urge the Washington Fish and Wildlife Commission to adopt this policy of using the best available science to drive wildlife management decisions. It is critical to the future of our wildlife populations, and to retain the continued trust

and support of the people of Washington State. Our world is changing. Wildlife is facing unprecedented challenges brought on by habitat loss and climate change. The decisions we make today will be critical for the future of fish and wildlife populations. These decisions must be based on scientific data. Personal or political opinions or bias should have no place at the table.
John Kent Wilkinson
1030 Weikel Rd
Yakima, WA 98908

Comment #62
45420.384028

I am strongly opposed to this draft policy. As a physician, I find the draft Commission Policy on the Use of Best Available Science extremely alarming. It reads like an excerpt from “1984”. The definition and application of science should come from… scientists - the experts in the field in question. Not politicians, lawyers, lawmakers, or “social” scientists. The repeated inclusion of social science in this policy is potentially incredibly harmful to wildlife management. Social science has a very limited useful role in wildlife management and may in fact be incredibly misleading and harmful in many scientific fields if misapplied. I find it ironic that bias is mentioned many times in this document as a negative confounder of science when in fact this document opens the door to social biases and enables commissioners to ignore department scientists in favor of “3rd parties” that facilitate their personal biases. Please strike this policy down.

Comment #63
5/8/2024 10:30 AM

Make decisions based on facts and data not politics and money. No cattle on WDFW lands!
Scott Stluka
Twisp WA
Sent from my iPhone

Comment #64
45420.453472

The policy appears to be an attempt to get back to a more science-based decision process. The policy mentions "social science" its not really clear on what that actually entails. If it pertains to social values/acceptance, it should better explain how this will be evaluated and distributed relative to each stake holder group. I'm not convinced that there is a group out there that contributes more monetary value to conservation than the fishing/hunting community. The social values of this group should be given more consideration than we have received in most recent years, (example: spring bear hunting removal, regardless of the related data that supported continuing the hunt).

Comment #65
5/8/2024 11:19 AM

The public notice sent out today says that BAS can also include "Social Science" and references Attachment 1 to the notice. "Social Science" is not addressed in Attachment 1. A search of the WA agency web pages turns up 27+ pages of web page listings with "Social" and "Science" referenced.
Can you please provide a reference specific to the "Social Science" that WDFW refers to in using BAS with "Social Science".
Dan Nutt
509-690-2580

Comment #66
45420.599306

It appears to me that the Commission Policy on the Use of Best Available Science, is designed to give the Commission, a power to override the rule already had been set in the place. I do not like it.

Comment #67
45420.6375

I believe that the best policy to follow is the one that the professionals with experience in wildlife management and the science of prioritizing all species of wildlife not just the predator populations. We need to make all species just as important or the future of wildlife in state will be seriously in danger.Protecting predators is like playing GOD and saying all other wildlife is just not important anymore.

Comment #68
45420.763889

This draft policy, while proffered as a means to "inform a variety of Department and Commission processes" is, in and of itself biased. Clearly, the past 5 or so years have shown us that certain members of the commission do not trust the WDFW scientists. It is a truly sad situation that has developed. We now have a few members on the commission who have an agenda and consider themselves to be better informed on the science of the fish and wildlife species that are managed by the WDFW. While I do not always agree with the decisions that are made by the WDFW- I have been disgusted by the attitudes and actions of some of our new commissioners. The fact that this language made it into the public review draft is telling; "The Commission should weigh the need for greater scientific certainty against the costs (in time, money, and management outcome [e.g., wildlife population declines, extinction, etc.]) of reducing uncertainty". What I have witnessed through many painful hours of tuning in to commission meetings (or watching recordings) is that a couple/few commissioners think they know the ecosystems and organisms in this state better than the people who have dedicated their careers to researching and understanding them. I have seen commissioners say they don't trust the scientists and they want the 'raw data'. That is a sign of a complete breakdown in trust (and respect). And, thus, here we are. We now have a complete joke of a draft 'best available science' policy which only furthers and widens the divide between rogue commission members who are trying to take over the management of fish and wildlife in the State of Washington. My overall grade for this draft policy is a fail.

Comment #69
45420.534722

I appreciate the WDFW and Commission for developing this policy. I support its adoption, with one necessary clarification. Under policy item g, in a sentence before the one that starts with "However," please add language that makes it clear that when there is inadequate information to confirm the management decision in question will ensure conservation of a species that is sustainable in the long term. Otherwise, the management decision will be based on a risk analysis with emphasis on what is best for species conservation. Conservation should be the highest priority and that is not clear in this draft policy.

Comment #70
5/9/2024 5:42 AM

The plan needs to incorporate that best available science includes the North American Model of Wildlife Conservation to ensure that we still are making decisions considering the tenets of this successful model which has been the world's foremost wildlife conservation strategy for over a hundred years. The voices of hunters and fishers are important and need to have equal ground with other social and emotional appeals in conservation policy. The North American model works for all citizens regardless if they hunt or fish and ensures there is a sustainable population of wildlife on the landscape for all uses including sustainable harvest.

Comment #71
5/9/2024 8:00 AM

Good Morning,
We should always be using the best available science for conservation. They data collected by the biologists should be the only information needed. No social pressure, no individual agendas, just science. The commission should follow it without question. Stick to the North American Conservation Policy and leave all the other stuff out. Science should be the basis on when hunting seasons are set and only limited when the science says it's needed, not because a group starts whining and crying just because they don't like it. And, stop all the infighting and do what you know is the right thing to do, you look ridiculous.
Casey Wessel

Comment #72
5/9/2024 10:14 AM

By social science I am curious what that really means. My worry is that you will be taking information from third party organizations that are extremely biased in getting rid of the current model of conservation. I am worried you will be using biased untrue data from animal rights organizations who manipulate words and data to fit their narrative. The commission already gets "scientific" data from the department of fish and wildlife and yet you do not listen to their recommendations. Using the spring bear season as an example. Washington has one of the healthiest bear populations in the country. When the department recommended to leave it open you ignore the science and recommendations of biologists who work for the state. The direction the commission is trying to go is troubling.

Comment #73
5/9/2024 4:31 PM

I know many people are quite unhappy with the hard-line ideological conservationist approach of the Fish and Wildlife Commission and the Dept. of Fish and Wildlife. One way to avoid seeming capricious or biased is for government to present a "guide" in the form of an expert analysis and a policy of the most grave adherence to best practices. DFW has done this with a new "Best Available Science Policy."
This approach hasn't been necessary in the prior decades, because nobody had the level of doubt we are seeing today. The hardline ideologues who have been getting appointed to the Commission to advance a very non-normal approach to common resources has soured confidence in DFW. Not to worry, mending bad rapport can be solved with a marketing gimmick.
Now decisions can be made with the new credibility, because, you know, the "BEST AVAILABLE SCIENCE" policy has been adopted. Pay no attention to the people behind the curtain.
The policy is probably true and fine, but "science" is only part of the decisionmaking process. Also hiding behind the curtain are "ideals" and "special interests." These are unaffected by science. It is also mostly true that policy decisions are not squarely addressed by scientific documentation.
DFW is asking for input on their new "science" fig leaf. Does this mean we'll see more fishing, or intervention against invasive predation, or reduction of new carnivores on grazing lands? Science is only where you look to see it, and those pointing the lens don't need to consult science for things they don't intend to do.

Comment #74
5/9/2024 6:36 PM

Personally I believe WDFW will only use science based on political bias and ideology

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Comment #75
5/9/2024 9:07 PM

Social science is not best available science in wildlife management. I strongly oppose this bill. Anybody with half a brain can see this is an anti hunter, anti republican, anti outdoorsman bill. Leave us alone. We just want to feed our families with healthy non processed non chemical filled food. Why are you guys so against that? Control? You want to wipe out all our food sources and take away our guns so you have full control or what? Fuck you guys. Your own people are getting caught poaching and doing all kinds of illegal crap. We want to legally feed our families. You can only push us so far...

Comment #76
5/9/2024 9:55 PM

To protect the state wildlife resources, agency staff also need to be kept apprised and available to comment at city council meetings or county planning commission meetings. I've tried to keep aware of BAS and share that at various planning meetings as a regular citizen. This is a full time job that a state biologist should do. Can the state commission or policy makers please allow its staff to comment publically at various public meetings on how best available science would benefit state fish and wildlife?

Comment #77
5/9/2024 12:21 PM

I do not support this as the commission has shown time and time again that they are making decisions with bias. Section g of the final review states "The Commission and the Department will seek to avoid bias in their interpretation of scientific studies by
considering all relevant sources of scientific information used by the agency in developing recommendations. In areas of contested interpretation or application of science, or conflicting results of important scientific studies, the information provided by Department staff shall be considered acceptable and sufficient. However, the Commission may request third-party review (vetted with explicit criteria and a transparent process) or the Washington Academy of Sciences to review key scientific disagreements. The Commission will provide specific questions about the contested science or uncertainty that is decision critical. (refer to f)" Comissioners Smith and Rowland are not doing so and are instead representing anti hunting groups when making their decisions.
Sure I support the policy but I do not support some of the members on this commission and it needs to be addressed.

Comment #78
5/10/2024 8:14 AM

I am absolutely opposed to the language "best available science" in an overall policy. The staff has not truly addressed the best available science so far in salmon recovery, so I have no faith in the department's integrity on the phrase's usage in the future. The phrase could be used too loosely because there is conflicting science in salmon and other management. Issues, both scientific and social must be addressed individually with public involment. The term "Best Available Science " could be used by staff or management to short cut any public process. The public does not trust WDFW.

Comment #79
5/12/2024 1:51 PM

I do not support this policy as it clearly oversteps the mandate of the Commission. The commission should rely on WDFW to provide the scientific information; they are the experts. It is completely inappropriate for commissioners to "provide additional scientific references or information for consideration in the development of science products by the Department." This is the role of department scientists and they should be allowed to do their job. The commission should review the information provided by WDFW staff, not the other way around.

Comment #80
5/13/2024 9:15 AM

This draft policy to use 'science' still has wiggle room for bias. Including Social Science in decisions regarding biology and eco-systems leaves the ability to ignore inconvenient data for bias in any direction. The attachment provides an accurate understanding of "Characteristics of Scientific Information". The first four 'Sources of Scientific Information' are factual and harder to skew to one's pre-determined outcome. Modeling is problematic. Assessment, Synthesis and Expert Opinion by a 'qualified scientific expert' can result in a desired outcome by choosing the correct 'expert'. It is a sad

commentary on the state of our politics that the word 'science' has lost meaning. This document reads like a nice attempt to make it appear that the politically appointed Commissioners are 'following the science.' However, it has plenty of wiggle room to allow the Commissioners to continue to push their political agenda.

Comment #81
5/13/2024 10:54 AM

In short I'm opposed to this proposal.
This gives the commission the ability to act unilaterally without any check. The wording is left far too vague when seeking "expert" opinion and "scientific " information.
The simple fact that commissioners are appointed by the governor allows for implementation of an agenda in lieu of wildlife professionals managing the states resources.
The 10 year management plan already indicates the attack on traditional hunting, fishing and outdoor related activities. These activities seemingly replaced by "social science" as mechanism to move to other uses for state land, resources.
This isn't wildlife management in my opinion. I'm a skeptic and this model looks like an attack on standard practice.

Comment #82
5/13/2024 1:30 PM

Dear John,
I'm wondering if you received my last email about the Draft FW Commission Policy on the Use of Best Available Science? Beyond the free handwritten comment transcription I mentioned before, our Konveio platform helps facilitate draft reviews, from assigning & resolving comments with a team, to AI comment summaries, auto-tagging and finding cross-cutting themes.
Let me know if you'd be interested and available for a quick call in the next week or two to learn more?
Thanks very much,
Kyle
Kyle Metcalfe
Account Executive
kyle@konveio.com | 303-943-1097
www.konveio.com
Just FYI, we found your announcement on Google; feel free to unsubscribe
On Wed, May 8, 2024 10:27 PM, Kyle Metcalfe wrote:
> Dear John,
> I saw your public comment period for the Draft FW Commission Policy on the
> Use of Best Available Science online and was curious if you have been
> receiving any handwritten comments or letters that you have to transcribe?
> I'd like to share a new resource we just launched that uses AI to
> transcribe handwritten notes, take a look at
> https://transcribe.konveio.com/ - first 500 comments are on us.
> Let me know if you have questions or if you're interested in learning
> about Konveio's other AI comment analysis features.
> Thanks,

> Kyle
> *Kyle Metcalfe*
> Account Executive
> kyle@konveio.com | 303-943-1097
> www.konveio.com
> Just FYI, we found your announcement on Google; feel free to unsubscribe
[image: logo]

Comment #83
5/13/2024 2:30 PM

Although I fully support the use of all best available biological science as a means to manage wildlife populations, I can in no way support the inclusion of social science in the decision making process. Wildlife populations should be managed based on recommendations from local biologists with the North American Wildlife model as the guiding principal.

Comment #84
5/13/2024 7:34 PM

It’s about time. This is long overdue. Adopt it, please.

Comment #85
5/13/2024 7:58 PM

Staff
After reviewing your "best science" policy I have one synopsis.
Let me preface this brief statement with: I am a college educated person and have been a government official for over four decades.
Decisions solely made on science is how tragedies happen. Having done research myself, I know for a fact that implicit bias is real. Certain categories of decisions (those that carry significant environmental and ecological ramifications) must also consider "real world' observations from those that have been in the field for years. Additionally, you are a Commission that reports to the people of the State. It is narcissistic to think you wouldn't first listen to and consider input from your constituents. This Science Based decision policy is what is wrong with the Government today. Science is a piece of the decision matrix, not the entire thing!
You are basically saying the people you work for, are uneducated and unable to make decisions for themselves. You would trust a fresh out of college (because that is what you attract with the pay and benefits packages) student using implicit bias research over someone that has been in the outdoors for decades.
How about a policy that categorizes decisions into the gravity of the effects and includes appointed or selected user groups to vet the science.
Frankly, I am tired of a twenty-something that spent a summer walking a

stream, telling someone who grew up on that stream what it needs!
As a fellow (retired) government official, please stop looking down at
those you are sworn and appointed to represent.
John Oliver
LaCenter Washington

Comment #86
5/14/2024 3:00 PM

The commission should prioritize WDFW research and scientific conclusions over other sources. The use and applicability of social science in commission decision-making should be spelled out in more detail. The Use of Best Available Science policy should not be used to limit fishing and hunting opportunities due to uncertainty or undefined "risks".

Comment #87
5/14/2024 9:49 PM

I am generally supportive of the policy though have a few concerns.
The policy should be amended to reflect something akin to the Cochrane Review GRADE scale as used in evaluating the systematic review of evidence in medical settings. The reality is, much of the time, the best science is not perfect. The policy should be amended to reflect our degree of certainty in the science and not make decisions based on uncertain information.
The note that “social science included”, should be amended to say “excluding social science”. Yes, the opposite. Social science is seldom reproducible. There is, in the academic community in the social sciences, a so-called “replication crisis”, because so few studies replicate. There are also consistent concerns raised that different social sciences have left or right wing biases in them. Introducing often unreproducible, possibly politically biased “social science” into policy making decisions would weaken the public’s trust in the work of the WDFW.

Comment #88
5/15/2024 8:35 AM

I strongly oppose adoption of the draft policy on the use of best available science that represents an abuse of commission authority. I am submitting full comments to the commission email.
Kim Thorburn
Spokane

Comment #89
5/15/2024 9:22 AM

Social Science, specifically the subjective interpretation of public opinion, economics, or politics should have zero implication on fish and wildlife mgmt decision. Allowing social science language into this policy will enable current and future commissioners a clear path to ignore sound biological science data and the advise of WDFW biologists to further their own personal agenda and that of the anti-hunting, anti-fishing and anti-consumptive use advocacy groups.

Comment #90
5/22/2024 10:11 AM

Good Morning,
My name is Jeff Norman and I am representing myself. I am a Life Member of Trout Unlimited, our nation's largest cold-water conservation community. I strongly support the use of the Best Available Science to inform fish and wildlife management decisions.
I have reviewed the draft and its attachment (Sources and Characteristics of Scientific Information to Describe the Best Available Science).
I believe the Draft Policy should be edited for clarity, so that anyone reading it can understand it, including the Commission and The Department. Following are my edits - if I were the author, this is how I would write the policy.
The purpose of this policy is to provide direction to the Commission and the Department on the use of best available science and to ensure the integrity of scientific information to inform decision-making.
(The policy has 8 paragraphs, labeled a. - h. - I think most of these could be much less wordy and still convey the intent. I would edit as follows:)
a. The science provided to the Commission should comport with accepted scientific principles and be without bias. See Attachment 1.
b. The Commission will work with the Department to create key questions for decisions concerning wildlife management. The Commission will consider the best scientific evidence available that will help inform these decisions.
c. The Department will work through the Science Divisions to create and maintain scientific integrity and ensure the best possible scientific support for Commission decision making. (no changes from the original)
d. The Commission will use the Best Available Science, including Social Science, in decision making.
e. In addition to Science, the Commission and Department will also consider applicable law and legal mandates in its decisions and recommendations.
f. The Commission should collaborate with scientists and management prior to public presentations, to ensure a common understanding of the scientific outcomes, conclusions and remaining issues on wildlife management decisions.
g. The Commission and Department will consider all relevant sources of scientific information and will seek to avoid bias in interpretation. The Commission may seek third-party review or ask the Washington Academy of Sciences to assist.
h. The Commission or Department may also use other decision support tools, such as Structured Decision Making, and adaptive management. (Not sure what that is - it would be helpful if you defined it)
Attachment 1 (from the original document, not attached here) is clearly written and stands on its own. I wouldn't suggest any changes to that

document.
Thank you,
Jeff Norman
16639 SE 17th St.
Bellevue, WA 98008
425-351-0799

Comment #91
5/22/2024 1:48 PM

How can you only resource from one science source and ignore other science sources. I am opposed to Best and would suggest All science available.

Comment #92
5/22/2024 1:56 PM

Yes we need science supported planning and action. We need to make more fish with hatcheries to offset the climate and habitat losses. We also need to metigate the slaughter of our returning salmon by managing the pinaped over populations and turns who consume a significant portion of the outgoing salmon popuations.
Thank You
Paul Chapman,
Lifetime angler and VP of Puget Sound Anglers Snoking chapter

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Comment #93
5/22/2024 2:39 PM

Please do not pass this “Best Available Science Policy” as who gets their science picked is who wins. Every natural resource issue must be thoroughly vetted out with every factor.
Thank you,

Comment #94
5/22/2024 3:12 PM

I am strongly opposed to the draft policy on use of the best available science. The commission is not chosen nor are they qualified to make that decision. The WDFW, the Tribal Co-Managers and the PFMC all have qualified, dedicated and capable biologists who have dedicated their careers to the study and conservation of our natural resources. To propose that the Commission would be able to provide better insight into the scientific aspects of this management is unfounded in fact and clearly not in the best interest of our resource management.

Comment #95
5/22/2024 4:23 PM

Despite what some believe, Social Science is not a science in the strictest sense. Social Science has no legitimate place in the process for making biological decisions.

Comment #96
5/22/2024 4:41 PM

All scientific reports need to be peer-reviewed thoroughly by tribal scientists and pro-hatchery scientists since most of your scientists seem to be very anti-hatchery. Puget Sound Chinook have been ESA-listed for 25 years now. It is probably time to find scientists from outside of the state to fix the problem.

Comment #97
5/22/2024 9:07 PM

I appreciate the opportunity to comment on this draft. I take exception to the reference to "social Science in the context of this draft. The commission should be focused on providing the maximum opportunity for fishing and hunting period. The social science can be skewed by feelings, emotions, and woke agendas, none of which has anything to do with providing appropriate habitat and healthy animal populations. Social science could be concerned with the individual feelings of the species in question. The feelings of prey species are not one of the Commision's concern, or tasks. I also disagree with the sentence suggesting that if the Commissioner does not like the available "science", they can look for their own. This I feel would lead to following science that conforms to their particular bias and may not be good science at all.
In closing why not leave the mandate as it is and not try and reinvent the wheel at this late date. The Mandat has been worked on for the last 8 years, let's put it in effect and see how it plays out. We have the input from NOAA, the Tribes, and WDFW scientist and biologist. now let's make some more fish.

Comment #98
5/22/2024 9:40 PM

Tribes have to be involved in all natural resource management as they are co-managers of the resources. There was no mention of tribes in this draft document. After we worked for 8 years building the Co-Manager hatchery policy. This proposed policy and the conservation policy are going to cut the legs out from under the co-manager hatchery policy that was voted on and passed by the current commission.
This policy would open the door to overturning the new co-management policy and could severely restrict increases in hatchery production that have been approved.

Comment #99
5/22/2024 10:34 PM

I'm AGAINST the proposed Best Available Science Draft Policy
Science is ever evolving, and is changing constantly, which can disprove old science.
Overall, trying to quantify the “best available science” is not applicable because every group has their own science/scientists that will disagree with each other. This wording alone says that there are many sciences out there, and

you are trying to pick the best one? This leads to the question of which one is right, which ones are wrong, and who do you select?
There is no such thing as one size fits all in science. There are always issues and factors that change every outcome. Every situation is always different and needs to be dealt with that way. That's the purpose of having a commission is to work out these issues on an individual basis.
We have NOAA, PFMC, WDFW staff, and tribal biologists/scientists to oversee fisheries and other natural resource issues to have the world's best scientists decide. They have the power to shut down any issues that your "best available science" policy causes.
Tribes have to be involved in all natural resource management as they are co-managers of the resources. There was no mention of tribes in this draft document. After we worked for 8 years building the Co-Manager hatchery policy. This proposed policy and the conservation policy are going to cut the legs out from under the co-manager hatchery policy that was voted on and passed by the current commission.
This policy would open the door to overturning the new co-management policy and could severely restrict increases in hatchery production that have been approved.
Thanks,
Joe Stephanson

Comment #100
5/22/2024 10:36 PM

Several years ago. I had the pleasure of volunteering to assist WDFW with the FWIN. The crew working at Banks lake that day included a couple of the Dept's Fisheries Biologists. I gave a copy of a book published in 1972 titled "Through the Fishes Eyes" to each of them that day. The biologists, while happy to receive the books, laughed at "the science" since disproved in that book. The book and underlying research was the foundation for numerous Fisheries Biology programs springing up at several colleges & universities.

Comment #101
5/22/2024 10:48 PM

We do not need best science policy. We need more hatchery production asap to increase Chinook and Coho Salmon to provide more food for SKW Qrcas and sport and Tr ibal commercial fishery opertunities. We need longer fishing seasons that increased hatchery production will provide

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Comment #102
5/22/2024 10:52 PM

"Best available science" is nothing but a guestimate shooting from the hip and/or selectively choosing whichever half ass study suits the Dept at the time. Barbless hooks, escapement and retention are currently based on one inconclusive study that claimed a 14% mortality rate in released salmon and steelhead. That metric has never been proven nor verified but, somehow, that is what we are stuck with permanently. This rule of "no fishing from a floating device" is just as ridiculous, again, based on that same study which is magically the only study. River fishing is nearly a thing of the past and saltwater will be close behind.

Comment #103

5/22/2024 10:54 PM

I do not agree with the science behind our fisheries. Please do not use this as a measure for anyone's seasons. There is no such thing as one size fits all in science. There are always issues and factors that change every outcome. Every situation is always different and needs to be dealt with that way. That's the purpose of having a commission is to work out these issues on an individual basi

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Comment #104
5/22/2024 11:52 PM

Use of this policy is bad for the residents of this state.

Comment #105
5/22/2024 12:34 PM

Greetings,
This response is my input on the Best Available Science Policy and is primarily about the management of salmon seasons. There is much to say but I'll summarize it. My perspective that I'm sure many have is that salmon seasons are greatly influenced by politics rather than science so it would be a mistake to think that having policy is sufficient to overcome distrust. If you are going to use the best available science, how do you test that hypothesis? Who decides?
The public does not trust WDFW regardless of what science is used as it operates as a gray/black box, issuing decrees that often feel capricious, and does not provide equal opportunity to the public to catch their fair share of the resource. Indicators include:
- The comments on Facebook and the subsequent suspension of all comments regardless of content. There will always be disgruntled people but you've axed a metric that could fall into the "How are we doing" category. An alternative would be to hold some public town halls where any and all questions can be addressed. Don't come with an agenda.
- The lack of a dashboard (website) that shows the yearly side-by-side statistics of the fish actually harvested (not encounters) by the public and the tribes, especially on ESA listed stocks. The public would know that Bolt is being followed, or not.
- The lack of a dashboard that shows season projections, harvest, and excess fish. This would highlight how you are doing. Are your models and processes good?
- The public cannot witness the NOF meetings or even read a transcript. "It would make us look bad"mhas been attributed to the tribes but likely WDFW too.
- "More fish does not equal more opportunity." - Baltzell. Somebody is harvesting these fish.
- When asked about the Muckleshoot releasing 1M un-clipped coho, Mr Baltzell treated this as a rumor and nobody on the panel corrected him. Practically speaking the public doesn't get to catch half of these.
- There is a rumor that the director of WDFW is telling the tribes if they want more fish to not clip them. If true, a dashboard would help prove or disprove that.
Summary: Be transparent on what the tribes and public are actually harvesting and don't blow your statistics by varying what is of hatchery origin and what is not. Show us that politics are kept in check.
As for science, if it isn't open for scrutiny, why should it be trusted? One problem here is accessibility to: raw data; transformed data; detailed documentation of the methodologies used; mathematical and statistical models; even the source code based on these models; the outputs of the process. It should not take a public records request to get this information. A REST API can be created to access data for power users, and web forms for others.

Improve data collection. Move towards real time data collection of harvests (public and tribal). Most people have phones that, with an app, can be used to log the catch with date, time, and location and even answer “where did you launch from?”
Challenge all assumptions and science. The Murthy is biased against the public, the test boat statistics are woefully underpowered (crime of small numbers), and do we really have holy fish because they are not clipped, or are they fungible with nearby hatchery stock? Quantify the qualities of holy fish because currently this is fish politics unchallenged and the Muckleshoot released 1M holy fish we can’t share equally.

Comment #106
5/23/2024 2:53 AM

I support the views of the CCA regarding Use of Best Available Science

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Comment #107
5/23/2024 4:09 AM

Where has the “best” science gotten us so far? We need a different direction on our fisheries in Wa state. It seems to me the “following the science” means more hatchery cuts and lost opportunity for everyone. Lets not pass this policy.

Comment #108
5/23/2024 4:43 AM

Please reject this misguided draft policy. Please put your efforts into how to improve our salmon hatchery production and policies and not how to destroy them. The commission needs to stop supporting end runs by anti hatchery groups.

Comment #109
5/23/2024 5:07 AM

Do not approve this policy. We need our hatcheries at 100%. The tribal have to have a voice.

Comment #110
5/23/2024 5:27 AM

I want to express my opinion against the proposed Commission Policy on best available science. Science is ever evolving, and is changing constantly, which can disprove old science.
Overall, trying to quantify the “best available science” is not applicable because every group has their own science/scientists that will disagree with each other. This wording alone says that there are many sciences out there, and you are trying to pick the best one? This leads to the question of which one is right, which ones are wrong, and who do you select?
There is no such thing as one size fits all in science. There are always issues and factors that change every outcome. Every situation is always different and needs to be dealt with that way. That’s the purpose of having a commission is to work out these issues on an individual basis.

We have NOAA, PFMC, WDFW staff, and tribal biologists/scientists to oversee fisheries and other natural resource issues to have the world's best scientists decide. They have the power to shut down any issues that your "best available science" policy causes.
Tribes have to be involved in all natural resource management as they are co-managers of the resources. There was no mention of tribes in this draft document. After we worked for 8 years building the Co-Manager hatchery policy. This proposed policy and the conservation policy are going to cut the legs out from under the co-manager hatchery policy that was voted on and passed by the current commission.
This policy would open the door to overturning the new co-management policy and could severely restrict increases in hatchery production that have been approved.

Comment #111
5/23/2024 5:27 AM

This draft should not be passed. It has too many flaws and does not include the tribes.
It also destroys all the work that has been done to enhance the hatchery program.
It also is another move to try to limit access to our natural resources by the commission.
Do not approve this draft or policy idea.

Comment #112
5/23/2024 5:36 AM

It's a stupid idea

Comment #113
5/23/2024 5:46 AM

Currently NOAA, Tribes, and Sport Groups have been working well together. We do not need another bureaucratic input from more groups who just want groups to be in court.

Comment #114
5/23/2024 5:47 AM

No on new policy proposal.

Comment #115
5/23/2024 5:48 AM

"Best Available Science " . Who determines what is the best science? A group with the most money? A group with the loudest lobbyists?
Please reject this plan as it's subjective at best and a bad plan for our resources.

Comment #116
5/23/2024 5:51 AM

I do not support the policy on the use of best available science. We have NOAA, PFMC, WDFW staff, and tribal biologists/scientists to oversee fisheries and other natural resource issues to have the world's best scientists decide.

Comment #117
5/23/2024 5:57 AM

I disagree with the proposed policy. We have a commission in place to make decisions. Co-managers need to have a voice in all decisions. "Best available science" is a misnomer. Science is ever changing. Who is to say which is the best available? This policy must be rejected.

Comment #118
5/23/2024 6:00 AM

I am AGAINST the proposed Best Available Science Draft Policy. How will this policy achieve any substantial gains on natural resources? As there is never a boilerplate type situation in science.
Science is ever evolving, and is changing constantly, which can disprove old science. Overall, trying to quantify the "best available science" is not applicable because every group has their own science/scientists that will disagree with each other. This wording alone says that there are many sciences out there, and you are trying to pick the best one? This leads to the question of which one is right, which ones are wrong, and who do you select? There is no such thing as one size fits all in science. There are always issues and factors that change every outcome. Every situation is always different and needs to be dealt with that way. That's the purpose of having a commission is to work out these issues on an individual basis. We have NOAA, PFMC, WDFW staff, and tribal biologists/scientists to oversee fisheries and other natural resource issues to have the world's best scientists decide. They have the power to shut down any issues that your "best available science" policy causes.Tribes have to be involved in all natural resource management as they are co-managers of the resources. There was no mention of tribes in this draft document. After we worked for 8 years building the Co-Manager hatchery policy. This proposed policy and the conservation policy are going to cut the legs out from under the co-manager hatchery policy that was voted on and passed by the current commission. This policy would open the door to overturning the new co-management policy and could severely restrict increases in hatchery production that have been approved.

Comment #119
5/23/2024 6:04 AM

The Best Available Science is common sense. Wild fish (if there are any left) have been mixing with hatchery fish for a long time. We need more fish in the system. We can achieve this goal by building more hatcheries. Wild fish will never make a recovery.

Comment #120
5/23/2024 6:10 AM

I am against the use of Best Available Science, for 2 very simple reasons.
1. Who decides what “is” the best available science?
2. The honesty of people, is what allows for the use of this so called tool. And what we have found through the pandemic, honesty is not perverse among public officials. This holds true for most political appointees in Washington.

Comment #121
5/23/2024 6:13 AM

Commissioners,
Please stop this draft policy on Use of 'Best Available Science' from moving forward. It seems to me to be a way for special interests to hijack the existing co-management process. The current process allows for state, federal and tribal scientists to adaptively manage our resources.
Thank you for considering my opinion on this.
Clint Muns

Comment #122
5/23/2024 6:15 AM

This draft policy uses a one size fits all approach to science and would take Washington State fisheries management in a bad direction. We already have NOAA, PFMC, WDFW and the Tribes overseeing our fisheries. These organizations, between them, have many excellent scientists currently doing valuable and credible work. It should be the Commission's job to figure out individual fisheries issues on an individual basis and use the wealth of information, already at their disposal, to address each fishery.
Kind regards,
Bruce Mack

Comment #123
5/23/2024 6:31 AM

I'm a fisherman and a member of the North Olympic Chapter of Puget Sound Anglers and the Coastal Conservation Association.
We work hard to help the environment for successful hatches of the Salmon.
Please keep our efforts moving forward.
We know the real problem of declining numbers ... kill nets and the extreme population of other predators other than Orca in our waters. I have brought in two salmon that were bitten off behind the hills by Sea Lions.
That never happened when I was younger.

Comment #124
5/23/2024 6:32 AM

I am opposed to this proposal

Comment #125
5/23/2024 6:38 AM

I am against this draft Commission Policy.

Comment #126
5/23/2024 6:43 AM

This draft is flawed and a misleading attempt to shut down recreational fishermen in favor of an elite few who want the rivers all to themselves. You cannot possibly consider this without the inclusion of all treaty tribes who have excellent hatcheries and scientists who manage their programs. I strongly oppose this plan.

Comment #127
5/23/2024 6:43 AM

Why are we going backwards

Comment #128
5/23/2024 6:58 AM

I oppose the proposed new policy because the following:
Science is ever evolving, and is changing constantly, which can disprove old science.
Overall, trying to quantify the “best available science” is not applicable because every group has their own science/scientists that will disagree with each other. This wording alone says that there are many sciences out there, and you are trying to pick the best one? This leads to the question of which one is right, which ones are wrong, and who do you select?
There is no such thing as one size fits all in science. There are always issues and factors that change every outcome. Every situation is always different and needs to be dealt with that way. That’s the purpose of having a commission is to work out these issues on an individual basis.
We have NOAA, PFMC, WDFW staff, and tribal biologists/scientists to oversee fisheries and other natural resource issues to have the world’s best scientists decide. They have the power to shut down any issues that your “best available science” policy causes.
Tribes have to be involved in all natural resource management as they are co-managers of the resources. There was no mention of tribes in this draft document. After we worked for 8 years building the Co-Manager hatchery policy. This proposed policy and the conservation policy are going to cut the legs out from under the co-manager hatchery policy that was voted on and passed by the current commission.
This policy would open the door to overturning the new co-management policy and could severely restrict increases in hatchery production that have been approved.

Comment #129
5/23/2024 7:15 AM

I am very disappointed in the direction of many of the decisions the wildlife commission has taken lately. They seem to want to end hunting and fishing in our state. I believe they are going to try to use "best available science" to eliminate hunters and fishers from our state.

Comment #130
5/23/2024 7:25 AM

Please no biased available science. We must put more fish back into the rivers via the most successful method which continues to be the hatcheries. This is a proven method to enhance fish numbers all around the State, which has been practicing this since 1894.

Comment #131
5/23/2024 7:30 AM

I'm firmly against this best available science draft policy. First off we already have NOAA, PFMC, WDFW, and TRIBAL biologists working together on hatchery production. We are finally seeing a return of hatchery production numbers that will sustain our fish for years to come. There is no reason to go against this long planned, years of hard work to change for a select few. Leave things alone and let all the work take effect. There is no scientific reason for any change to be made. Again I am against any change to the policy that is being proposed.

Comment #132
5/23/2024 7:33 AM

The Commission should carefully consider if this is the best path forward..

Comment #133
5/23/2024 7:43 AM

I am against this commission Policy on the Use of Best Available Science.. Please turn this down !

Comment #134
5/23/2024 7:47 AM

Best science; Another catchy phrase that WDFW management, with the Governor's blessing will be used and sprinkled into policy decisions to justify larger budgets, more studies and will only add to the miserable track record this department and commission hold.
WDFW and the "citizen commission" have been growing larger and more complicated for years. Consuming vast amounts of money, pouring resources into "best science" projects for years and years...and where is the tangible results of ANY improvement? The definition of insanity is to do the same thing over and over and expect different results; WDFW and the Commission are insane by this definition.
We don't need another tag line, we need real, boots on the ground work done by an independent coalition of truly invested people who are not afraid to call out the naked emperor for fear of losing their position and prestige.

Comment #135
5/23/2024 8:04 AM

Cancel this policy

Comment #136
5/23/2024 8:25 AM

Overall, trying to quantify the “best available science” is not applicable because every group has their own science/scientists that will disagree with each other. This wording alone says that there are many sciences out there, and you are trying to pick the best one? This leads to the question of which one is right, which ones are wrong, and who do you select? If using the recent Covid19 Pandemic as an example, the best available science was guided by very special moneyed interest and the term "safe and effective" was labeled for a group of vaccines that had never been on the market. Widely adopted it was shown that the "science" proved wrong and that only very specific groups were at risk, but "the science" mandated that everyone follow in a herd mentality that never stopped the spread, and caused a number of vaccine injuries. It is pretty clear that our current Governor followed "the science" and will most likely support the same special interests that are not in favor of outdoor enthusiast who have a lot more experience in the fisheries than some guy wearing a lab coat and sitting behind a computer analyzing data given to them by a billionaire with an investment or social agenda.

Comment #137
5/23/2024 8:26 AM

B

Comment #138
5/23/2024 8:27 AM

I’m against the best available science policy. We need hatchery fish to feed orcas and fisheries, not cuts as all hatchery cuts have not returned any benefits for society, orcas or wild fish populations.

Comment #139
5/23/2024 8:31 AM

No way do I support this policy.
There is no such thing as one size fits all in science. There are always issues and factors that change every outcome. Every situation is always different and needs to be dealt with that way. That’s the purpose of having a commission is to work out these issues on an individual basis.

Comment #140

5/23/2024 8:33 AM

I urge you to consider that there are two or more sides to an issue and that the “Best Available Science Policy” will only support one perspective. Please vote no and do not accept this measure.
Barry J. Baker

Comment #141
5/23/2024 8:34 AM

When the hatcheries are not producing and salmon no longer exist in fishable numbers the financial loss to the state of Washington will be on a scale that you cannot imagine.Please don’t undo the hard,smart work that has and is being done by those most affected,the tribes ,

Sincerely
D.Craig Brandt Sequim Wa.

Comment #142
5/23/2024 8:35 AM

PSA and other allies worked for 8 long years to:
A. Remove “Hatchery Science Review Group” from the WDFW Commission Salmon Policy. Had anyone known that this policy for our Washington State natural origin Chinook (some refer to as “wild” but there is no such thing in Washington state anymore) was going to take between 200-500 years for those stocks to rebuild, but only if we had Bristol Bay pristine conditions which we do not have, nobody would never have agreed to this policy.
B. We brought together NOAA, Tribes, WDFW, Commercials, coastal communities, with many others to help us change the negative outlook of hatchery production that has been cut 163 Million Hatchery Chinook and Coho annually in Washington state since 1992. We all came together to fix this disaster.
C. Got WDFW Commission to add another 50 Million Hatchery Chinook in Washington state. 30 million Puget Sound/ 20 million Columbia River. This was on behalf of the SRKW Orcas and providing fishing for all of us.
D. Got NOAA to give us the green light to make more hatchery fish for the SRKW Orcas and Washington State fishermen.
E. Worked our way into the Governors Orca Task Force as members and eventually slugged out to get the added 50 million additional hatchery Chinook that was a 9-0 vote/win by the WDFW Commission back then.
F. Through this Orca Task Force recommendation, WDFW assigned 13 hatchery programs to make more fish for the SRKW Orcas. The Wild Fish Conservancy filed a lawsuit to stop this program designed to feed the SRKW Orcas
G. Got the WDFW Commission Salmon Policy C-3619 removed and replaced with the WDFW Commission Hatchery Policy C-3624.
H. Spent two plus years going back and forth between previous WDFW Commissioners and tribal members to come to an agreement on the new joint Co manager Hatchery policy that the tribes and state came together on. This new policy puts them working together on our rivers and hatchery systems.
I. This policy makes it extremely hard for the Wild Fish preservationists to sue to shut down hatcheries as the tribes are federal and very hard to sue. Since both are co-managers. To date, 5 tribes have intervened in the Wild Fish Conservancy lawsuit to stop our 13 hatchery programs. That lawsuit did not go through thanks to tribal intervention.
J. Wild Fish Conservancy, Conservation Angler, and Washington Wildlife First have a lawsuit to try to stop our Co-manager hatchery policy. They are not doing well on this and have been working through a few commissioners to try to come up with ways to kill this new Co-manager Policy that will allow more hatchery fish to be produced.

K. The Best Available Science and Conservation Policies for our WDFW Commission, if adopted, could severely cut the legs out from underneath our Co manager Hatchery program that is going to allow more hatchery fish to be made. That's why it's so important that you help us stop the implementation of this policy.
L. Worked with Senator Cantwell's office to get $400 Million for our hatcheries and hatchery production.
Currently, we are winning together to bring back more fish for Orcas and all of us. We have to stay on the course to not lose any ground. We have different WDFW Commissioners now than we had during this building phase. Wins are much harder. We built relationships with most of the commissioners and worked on many fishery issues with them one on one. Because of our long-term relationships with tribes, federal, state and sport and commercial fishers, we were successful in getting a 6-3 vote on passing the co-manager Hatchery Policy. We need to continue to work together to make more fish for all of us to return to fishing and continue to feed the Orcas. The so-called answer to fixing our natural-origin fish returns has been to cut hatchery production over and over. Where has this worked? Nowhere! If it was ever going to work, the 163 million hatchery fish cuts should have had the so-called "wild" fish come screaming back. To date, they have continued to decline and cutting hatchery production has not brought them back, but it is still the most used answer. Please read the PSA letter to the commissioners and the draft policy itself and make comments. It does not have to be long. State your comments asking them to cancel the policy, if you agree. There is no tribal co-management listed nor built into it, which is the law on natural resources that are shared. Please send to friends and family to sign on too. It's very important to get our fisheries back. We did not get here overnight and are not going to fix it overnight either. Please sign on to this today and forward.
Thank you
Gary Bodine

Comment #143
5/23/2024 8:36 AM

I read this draft commission policy on the use of Best Available Science, and see too many opportunities for loss of power and decision making for our elected and non elected individuals at the WDFW. Specific scientific study and micro view analytics can be very biased especially when funded by our tax paying and license paying dollars that should be spent toward the production of more fish for the orcas and then humans and sport fisherman. The adoption of technology to help with efficiency in any data collecting exercise is always a great idea. Science is also extremely important. The implementation and source of each are most important. What additional science by these bodies are being looked at and provided to the WDFW, Tribal Co-managers, and the commission, will be over and above what our experts already provide? Who is funding this? There are a number of scientists and organizations that dedicate their lives to solving this salmon issue. Is it a resource issue in the department that does not allow the review and analysis of these parties that would freely provide the information? The wrong thing to do if history is a preclude to the future.. is to state fund an agency with open checkbook to provide "scientific information" that will be the default to proper decision making. I urge you to be more specific in this verbiage and not move forward with this policy as my primary fear is we lose decision making power with our current agnecies in place.

Comment #144
5/23/2024 8:58 AM

I fully support the Puget Sound Anglers position on the use of "best available science". It was understood clear back in the late 1800's that we would have to rely on hatchery salmon in order to help offset the reduced numbers impacted by beaver trapping, gold digging, other loss of habitat including dams etc.

Once again I will be headed up to Canada to fish for hatchery salmon because their program is so much better than ours here in the U.S.
For further "scientific proof" look at the hatchery salmon program in Argentina. giant king salmon produced from our hatchery eggs from Oregon Everyone gets it except you people here in Washington State. Please replace this nonsense with common sense.

Comment #145
5/23/2024 9:07 AM

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Comment #146
5/23/2024 9:07 AM

I am against The Commissions policy on the use of best available science.

Comment #147
5/23/2024 9:13 AM

Agree with more fish, more hatchery fish and funds to make it happen. Fishing is a top 5 income industry!

Comment #148
5/23/2024 9:17 AM

Every situation is always different and needs to be dealt with that way. That's the purpose of having a commission is to work out these issues on an individual basis. bringing back old management plan using Washington Academy of Science (that are not Scientist but anti-hatchery people) is not the good for the future of our fisheries.

Comment #149
5/23/2024 9:20 AM

This should not become a policy. I am opposed to it.

Comment #150
5/23/2024 9:40 AM

Vote no, no NO on the best available science proposal. Glaringly obvious attempt to manipulate outcomes based on the bias of appointed commissioners. Puget Sound Anglers State Board President Ron Garner submitted a letter that spells out my concerns perfectly.

Comment #151
5/23/2024 9:44 AM

The best available science, if practiced, would acknowledge the impact of pinnipeds proliferation through the Marine Mammal Act. By ignoring the immense increase in pinniped population and it's incursions into spawning grounds such as the Skykomish River not to mention every obstacle and inlet used by migrating fish, the so called science would doom any native fish runs if there were not hatchery produced fish to substitute for dwindling native stock. Science is fine a in a lab, but when real world scenarios are ignored, that's not science, that's self interest. Certainly, we should include science in our deliberations but not make it the final word. Science has been wrong, witness the introduction of the starling to control english sparrow, now we have massive starling flocks, decimating berry crops, messing buildings and taking over native bird's nests. Science makes mistakes and following this method to avoid conflict is cowardice.

Comment #152
5/23/2024 9:46 AM

We can not go back to old policy's todays trollers taking fish by the thousands, and tribal Indians netting, are wiping out the fishery's, are one fish a day limit as a fishermen with a 100.00 license will become extinct.

Comment #153
5/23/2024 9:48 AM

First and foremost, science is inherently dynamic and continually evolving. What is considered the best available science today might be disproven or significantly revised tomorrow. Attempting to establish a single, static benchmark for the best available science is impractical and fails to account for the fluid nature of scientific discovery.
Furthermore, the notion of quantifying "best available science" is flawed because different groups of scientists often hold divergent views. There is no universal consensus in many areas of science, and choosing one perspective as superior over others can lead to biased and potentially erroneous conclusions. This creates a dilemma: which science do we consider the best, and based on what criteria? The diversity of scientific opinions should be acknowledged and respected, not reduced to a singular, debatable standard.
Additionally, science does not operate on a one-size-fits-all basis. Each situation involving natural resources is unique, with its own specific factors and variables. A policy aiming to universally apply a single standard of science overlooks the nuances and complexities that define each case. The very essence of having a commission is to address these issues individually and with the specificity they require.
We already have a plethora of scientists from esteemed organizations such as NOAA, PFMC, WDFW staff, and tribal biologists who are deeply involved in overseeing fisheries and other natural resource matters. These experts are among the best in their fields and have the authority to address any issues arising from the current policies effectively. Introducing a new layer of evaluation is redundant and undermines the expertise of these established scientists.
Moreover, the proposed policy fails to recognize the critical role of tribes in natural resource management. As co-managers of these resources, tribes have invested significant effort into building the Co-Manager Hatchery Policy over the past eight years. This policy and the conservation policy could undermine the progress made, disrupting the balance achieved through extensive collaboration and agreement.
Lastly, this policy threatens to overturn the new co-management policy and could severely limit increases in hatchery production that have already been approved. Such disruptions could have far-reaching negative impacts on our fisheries and natural resources.

In conclusion, the proposed Best Available Science Draft Policy is not only unnecessary but also poses significant risks to the effective management of our natural resources. I urge you to reconsider its implementation and to focus on leveraging the existing scientific expertise and collaborative frameworks that have served us well.
Thank you for considering my feedback.
Sincerely,
Matthew Patton

Comment #154
5/23/2024 10:03 AM

Allows for political pressure to supersede science

Comment #155
5/23/2024 10:51 AM

Please do not approve this new policy. We need to have all current stakeholders at the table using current and applicable science to manage our natural resources to the best of our ability.

Comment #156
5/23/2024 11:01 AM

Science is ever evolving, and is changing constantly, which can disprove old science.
Overall, trying to quantify the “best available science” is not applicable because every group has their own science/scientists that will disagree with each other. This wording alone says that there are many sciences out there, and you are trying to pick the best one? This leads to the question of which one is right, which ones are wrong, and who do you select?

Comment #157
5/23/2024 11:08 AM

This proposed policy should be sent to the round can. Who determines the Best Available Science? The best available science has become a political joke. Just look at the Covid pandemic decisions based on the political lies of the "best scientists". To save the salmon only eating Orcas, you need to feed them. Hatcheries are the best way to increase the supply of salmon.

Comment #158
5/23/2024 11:15 AM

- Science is ever evolving, and is changing constantly, which can disprove old science.
- Overall, trying to quantify the “best available science” is not applicable because every group has their own science/scientists that will disagree with each other. This wording alone says that there are many sciences out there, and

you are trying to pick the best one? This leads to the question of which one is right, which ones are wrong, and who do you select?

- There is no such thing as one size fits all in science. There are always issues and factors that change every outcome. Every situation is always different and needs to be dealt with that way. That's the purpose of having a commission is to work out these issues on an individual basis.
- We have NOAA, PFMC, WDFW staff, and tribal biologists/scientists to oversee fisheries and other natural resource issues to have the world's best scientists decide. They have the power to shut down any issues that your "best available science" policy causes.
- Tribes have to be involved in all natural resource management as they are co-managers of the resources. There was no mention of tribes in this draft document. After we worked for 8 years building the Co-Manager hatchery policy. This proposed policy and the conservation policy are going to cut the legs out from under the co-manager hatchery policy that was voted on and passed by the current commission.
- This policy would open the door to overturning the new co-management policy and could severely restrict increases in hatchery production that have been approved.

Comment #159
5/23/2024 11:17 AM

"Best Available Science" according to whom?
We have NOAA, PFMC, WDFW staff, and tribal biologists/scientists fully able to bring alternative views to decision making without arbitrarily overriding co- management agreements with outside expert opinion.

Comment #160
5/23/2024 11:35 AM

I am AGAINST the use of "Best Available Science." You get what you pay for and that is particularly true with "Science."

Comment #161
5/23/2024 11:37 AM

The ultimate decision makers on fisheries are the tribes, NMFS, WDFW, and PFMC. By making a policy such as this and the conservation policy, you are circumventing the process and comanagers to open the state up for more lawsuits. When you make policies and cannot or do not follow them, you just laid out the groundwork for more lawsuits against the state. The purpose of the commission is to have a panel of bodies to vet out issues and come up with the best solution. "Science for hire" has not, nor will it ever work. Facts and data are the only acceptable way to get the best solutions. That's why we try to select the best commissioners.

Comment #162
5/23/2024 11:41 AM

Please provide more hatchery salmon for both the Orcas and Fishermen and women!

Comment #163
5/23/2024 11:53 AM

*** COPY OF RON GARNER LETTER ***
Thank you,
Andrew Sullivan

Comment #164
5/23/2024 1:19 PM

I am against implementation of the Best Available Science Draft Policy if it results in undoing the gains made to increase hatchery production of salmon and steelhead over the past several years by various fish-advocate organizations and tribes. Depending upon only the "natural" survival of salmon and steelhead will only continue to see the precipitous decline of all salmonids we have witnessed over the last 30+ years and assures virtual extinction in what little is left of their historic ranges. The only way that "wild" fish will be able to propagate naturally in sustainable numbers is if the human-caused destruction of natural habitat and resources is undone. Short of removing most of the human population to pre-colonial levels and allowing the natural habitat to be restored, scientific history shows this cannot be achieved. Hatchery supplementation, while not ideal, provides a "bridge" towards a time when naturally self-supporting salmonid populations might be reestablished. Please do not implement policies that destroy this bridge.

Comment #165
5/23/2024 1:46 PM

Do not adopt the Use of Best Available Science. Might as well say "Best Guess Science", because there is scant real science behind the idea that hatcheries are bad. It will only be used and abused by the Anti Hatchery conservationists to further their goal of eliminating all hatcheries and this is a wrong headed and dangerous approach, and has not worked in restoring fish runs of salmon and steelhead.

Comment #166
5/23/2024 2:06 PM

I strongly oppose ANY change to the current direction of aggressively utilizing hatcheries to augment fishing opportunities while rebuilding wild stocks through selective harvest rules and appropriate stream enhancement.

Comment #167
5/23/2024 2:07 PM

I am adamantly AGAINST the "Best Available Science" policy

Comment #168

5/23/2024 2:12 PM

As I read the draft, I do not see any clear description of best available science. It seemes to me that what is missing is inclusion of consumers of WDFW product. We sportsmen who fish and hunt have tremendous knowledge about the resource and support organizations that have a wealth of hands on science in the field that should be considered when creating policies that affect the resources that make Washington a great place to live. Talk to your customers and their representitives not just scientists who create data models based on results from past failed policies.

Comment #169
5/23/2024 2:23 PM

*** COPY OF RON GARNER LETTER ***
Thank you,
Stanley Prescott

Comment #170
5/23/2024 2:23 PM

Why create another policy when there is a policy in place that would address many concerns the commission may have towards decision making. This draft policy would not add any help in making decisions. The best results are from past and current information and working with the agencies overseeing fisheries and other natural resources. These agencies NOAA, PFMC, WDFW staff and tribal biologist/ scientist have the "Science" needed to help make decisions. This draft policy " Use of Best Available Science" should be placed into the round file (TRASH!!!)

Comment #171
5/23/2024 2:57 PM

Please please don't revert to the old ways. What you are suggesting never worked, didn't have input from the tribes, and was not the best science we have available. I have fished since I was a kid in Washington. Now I am a senior grandma and hope Washington State can manage our fisheries in a responsible manner. Jan De Felice

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Comment #172
5/23/2024 3:15 PM

Science is ever evolving, and is changing constantly, which can disprove old science.
Overall, trying to quantify the “best available science” is not applicable because every group has their own science/scientists that will disagree with each other. This wording alone says that there are many sciences out there, and you are trying to pick the best one? This leads to the question of which one is right, which ones are wrong, and who do you select?

There is no such thing as one size fits all in science. There are always issues and factors that change every outcome. Every situation is always different and needs to be dealt with that way. That’s the purpose of having a commission is to work out these issues on an individual basis.

We have NOAA, PFMC, WDFW staff, and tribal biologists/scientists to oversee fisheries and other natural resource issues to have the world's best scientists decide. They have the power to shut down any issues that your "best available science" policy causes.
Tribes have to be involved in all natural resource management as they are co-managers of the resources. There was no mention of tribes in this draft document. After we worked for 8 years building the Co-Manager hatchery policy. This proposed policy and the conservation policy are going to cut the legs out from under the co-manager hatchery policy that was voted on and passed by the current commission.
This policy would open the door to overturning the new co-management policy and could severely restrict increases in hatchery production that have been approved.

Comment #173
5/23/2024 3:21 PM

I totally agree with our President's input below. Please listen and take his recommendations seriously. We need your support and common sense to do what's right for our fisheries and we fishermen/fisherwomen.
Thank you!
Carl & Irene Carver and family
*** INCLUDES COPY OF RON GARNER LETTER ***

Comment #174
5/23/2024 3:56 PM

This policy seems like an attempt to circumvent policy we have worked very hard to establish. Besides, "best available science " is always changing, which makes for a convenient excuse to put forward schemes no one wants.

Comment #175
5/23/2024 4:03 PM

If no fish hatcheries existed, the commercial netting of salmon would likely need to be significantly reduced or halted entirely to prevent overfishing and ensure the sustainability of wild salmon populations. Hatcheries play a crucial role in supplementing wild salmon stocks and supporting commercial fisheries. Without hatcheries, the natural salmon populations might not be able to sustain the level of fishing pressure that currently exists, leading to the depletion of these fish populations. Hence, the absence of hatcheries would necessitate strict conservation measures, including potential restrictions or a complete stop on commercial salmon fishing, to protect and preserve wild salmon stocks for future generations. Stop this draft policy. Science has proven there are no longer any wild salmon pure populations left for the last 80 years. Stop this new draft no science policy. Ted Fraser

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Comment #176
5/23/2024 4:16 PM

Please don't use the Best Available Science . I feel it will lead to a disaster for the fish, and then for all the other species that depend on them.

Comment #177
5/23/2024 4:21 PM

This is policy could cause irreparable damage to hatchery production of chinook salmon which we all want more of not less.

Comment #178
5/23/2024 4:46 PM

Not to sure why you are asking for the public feedback on this. It should rely on the agreed "Science" of the Co-Managers. Personal feelings, current trends of the public has nothing to do with it.

Comment #179
5/23/2024 6:09 PM

This draft appears to me to grant you a free hand to do whatever politically suits you (or whom ever controls you) by citing favorable (to your intentions) opinions.
I disagree with this. I am not in favor.

Comment #180
5/23/2024 6:27 PM

Why ruin what we have put together as a group for many years .

Comment #181
5/23/2024 6:49 PM

I agree with the Commission and its policies

Comment #182
5/23/2024 7:16 PM

Totally against with this draft policy. You have to be better than that.

Comment #183
5/23/2024 7:38 PM

I would like to vote NO on this proposal for the use of Best Available Science. The hard work that has been done over the last eight years has salmon restoration of stocks on the right track. This proposal takes away many of the gains.
Thanks

Comment #184
5/23/2024 7:51 PM

Native wild fish are extinct in Washington state! Anyone who says otherwise is not using their brain. Hatchery fish are the only solution to meet the ever increasing demand for all the parties. 53 million dollars was recently spent to supposedly allow salmon to get up Chico creek. Chico creek has always had an abundance of fish returning and spawning. Would it not have been more advantageous to have used that money to build a few more hatcheries?
We really don't need more science to solve the problem when common sense would do it!

Comment #185
5/23/2024 7:57 PM

Big no on this. We already have scientific leadership in federal, state and tribal interests. Those that matter. Adding more cooks to the kitchen trying to advance their agenda is a no go. Reject Use of Best Available Science.

Comment #186
5/23/2024 8:08 PM

Please get hatchery's in full production . I have been paying for a fishing license for years. to be able to catch 0 fish . Fishing in Washington sucks .

Comment #187
5/23/2024 8:19 PM

Overall, trying to quantify the "best available science" is not applicable because every group has their own science/scientists that will disagree with each other. This wording alone says that there are many sciences out there, and you are trying to pick the best one? This leads to the question of which one is right, which ones are wrong, and who do you select?

Comment #188
5/23/2024 9:35 PM

I am against the draft commission policy on the use of best available science. Overall, trying to quantify the "best available science" is not applicable because every group has their own science/scientists that will disagree with each other. This wording alone says that there are many sciences out there, and you are trying to pick the best one? This leads to the question of which one is right, which ones are wrong, and who do you select?

Comment #189
5/23/2024 12:42 PM

There is no such thing as one size fits all in science. There are always issues and factors that change every outcome. Every situation is always different and needs to be dealt with that way. That's the purpose of having a commission is to work out these issues on an individual basis.

Comment #190
5/23/2024 12:51 PM

We all wish that all inhabited lands that were once pristine and without a human imprint existed. However, that reality simply is not feasible. Gone forever are possibilities of lands and waterways not impacted by humans. Excepting this reality, we must do what we can to not only minimize future events that may impact existing resources, but when possible augment these resources to continue to assist existing wildlife that depend on us to provide for their existence. Specifically, salmon are not only a test of the health of a river system, but they provide the food resources for many marine wild life as well as people. Marine life such as our orca and other marine mammals, birds, tribal and non tribal fishing is dependent on hatcheries to augment existing wild fish. There simply is not enough fish produced in the wild to fulfill these requirements. If you wish to have naturally occurring salmon runs only, all tribal, commercial, subsistence, and recreational fishing must stop. If this is your desire, please say so. Make your voice heard, stop commercial trawlers that devastate salmon runs while on their migratory journey, stop all commercial and tribal indiscriminate netting netting.
Following science that only serves to support a preexisting view point is not truly understanding all of the available science and points of view of a very complex issue. As a youth in the early 70s, there was ample fish. Hatcheries augmented wild. There was never an issue of starving Orca, reduced fishing opportunity, complex fishing restrictions and monitoring.
All of the people of Washington deserve to be able to fish. We can and are improving river systems. We are spending billions of dollars to remove fish barriers. The "Best Available Science Policy" is a one sided policy that has a predetermined outcome. Those that support it are only interested in what supports their point of view therefore it is not science but propaganda.
Patrick Caron

Comment #191
5/23/2024 12:52 PM

I believe that the term "Use of Best Available Science" to be misleading because if one organization has the capability to be declared as "the best available science," it dismisses the backbone of science which is the ability to challenge, refute, disprove, or prove new theories. I believe that the underlying purpose of this policy is to streamline bureaucratic processes to allow for faster implementation of policy in a dynamic environment but the failure to mention the tribal co-managers of this resource is problematic and will erode the positive work that's been done in the tribal/state relationship. Additionally, defaulting to the Washington Academy of Science that is already proven to be anti hatchery production lends to an inference that conservation/recreation policy would likely prove divisive amongst the stake holders in this complex fishery.
Please do not pass this policy.
Sincerely,
Ryan

Comment #192
5/24/2024 5:58 AM

Hello,
Thank you for reviewing and considering my comments on this important policy. I believe a Best available Science Policy should serve as a bulwark against the imposition of values by any user group or groups onto others, while ensuring that management decisions are based on a foundation of sound science. I am generally supportive of the current draft, however I suggest the following edits: 1.) Provide a definition of "Social Science". As written I am concerned that it could be misconstrued as a euphemism for "social values" or "public opinion". 2.) Remove the following sentence from provision e.) "It is
understood that while consideration of scientific findings must form the basis for Commission decisions,
social values, (including risk tolerance) and the professional experience of Commissioners are integral to the decision-making process." The two sentences of this provision are nearly contradictory. The first provides clarity while the second is vague and confusing. It seems to be offering acceptable exceptions to the application of Best Available Science. If so these exceptions should be developed much more fully to resolve the lack of clarity. It seems much easier and more straightforward to remove it.
Provisions b.), f.), g.), and h.) are fantastic and I hope will be adopted as is.
Thank you for your work on this document, and consideration of my comments.
Dan Russell
Carlton WA

Comment #193
5/24/2024 7:27 AM

The hatchery is the most productive tributary of the river system; that is a fact!
Over the past 100 years salmon egged have been widely distributed across ALL area river systems; that is a fact!
Salmon are highly adaptable to different river systems; that is a fact!
New modern genetic technology is being used as a tool to enhance salmon populations; that is a fact!
Hatcheries are now using “best practices” to improve behavior and survival of young salmon; that is a fact!
Groups that are against modern hatchery development are self serving to preserve their agendas at the expense of actually saving salmon.

Comment #194
5/24/2024 8:16 AM

Terrible idea. Please do not institute this policy.

Comment #195
5/24/2024 8:58 AM

I agree

Comment #196
5/24/2024 9:25 AM

I am very concerned about trying to meld "social science" into fish and wildlife management where "natural science" is the driver. The "Best Available Science" should be restricted to natural science which works with experimental data and avoids experiential data based on interviews, surveys, etc.

Comment #197
5/24/2024 9:28 AM

It has been proven that hatchery fish replenish stock and provide much needed fish for the natural enviroment. We can look at states like Michigan that have had and continue to have successful hatchery programs. We should follow those program models in our state too and become the leader in salmon hatchery program again.

Comment #198
5/24/2024 9:44 AM

I agree 100 percent with the letter that was sent from the Puget Sound Anglers State Board to the commission . It states our feelings as a group that is well informed on the latest science and information available . The Tribes and State represent us on the best science available we put our trust in them .
Thank you Russell Carver Sr. Sumner WA

Comment #199
5/24/2024 10:21 AM

The commission needs to confess that everything they touch makes matters worse. the space shuttle used best available science to bring the shuttle home with missing tiles. Eliminate monetary gains and let nature renew itself. You cannot keep raping the oceans with nets and expect nature to compete on science calculations.

Comment #200
5/24/2024 10:34 AM

Thank you for the opportunity to comment on the FW Commission Policy on the Use of Best Available Science.

There are three primary points I would like to make:

* In its current incarnation, the Commission has vaguely pointed to data ambiguity as a basis for suspending hunts and/or casting doubt on the use of hunting as a management tool. This has to stop and, to the extent that this policy is a crutch enabling the Commission to perpetuate this agenda (for example, through the policy's reference to risk), this policy should be amended or discarded.

* This policy shamelessly advances the “professional experience of the Commissioners.” The Commissioners should lean on, rather than minimize, the expertise of Department biologists who have studied the actual wildlife populations being managed. The Commissioners’ previous experience studying protected species such as orcas or pinnipeds, for example, is of no use in the terrestrial game management decisions entrusted to the Department.

* An apparent purpose of this policy is to advance the use of social science in wildlife management decisions. This appears to be a poorly veiled attempt by the Commission to justify future decisions that are opposed to the Department’s science-based wildlife management. Therefore, the use of social science should be struck from the document.

Comment #201
5/24/2024 10:56 AM

Please do not pass this “best available science policy”

Comment #202
5/24/2024 11:08 AM

This proposed policy should not be adopted in its current form. The policy purports to be about decision making based on scientific information, but the text is not consistent with this principle.
In paragraph (d) the policy says that the Commission shall use Social Science . This term is not defined, but appears to be the study of people, communities, behaviors, etc. It is unclear how social science will be used when the Commission is tasked with making decisions regarding fish and wildlife. Inclusion of this reference provides the commission with an opportunity to ignore technical science regarding fish and wildlife so that they can rely on other "science." Paragraph (e) takes this a step further and references the Commissions use of social values, (including risk tolerance) and professional experience in the decision-making process. Allowing non-science values and experience to influence Commission decisions effectively allows the Commission to discount or ignore the Best Available Science. In that case, what is the point of this policy?
Paragraph (g) of the policy proclaims that the Commission and the Department should seek to avoid bias, but paragraph (f) allows Commissioners to provide additional scientific references or information. Interjecting references and information that Commissioners source themselves is likely to result in Commissioners advocating for a particular scientific reference or information, instead of evaluating the information provided by Department staff and experts. It is probable that each Commissioner has a bias on certain issues, and they should not be allowed to influence the decision-making process with information that supports their bias.
Finally, there should be a greater emphasis on transparency. All scientific information that is considered, discounted, or dismissed from consideration, should be referenced in any decision and the reasons for considering, discounting, or not considering should be clearly and publicly stated.
As a side note, any Commission Policy involving the use of Best Available Science should be based on guidance that is relevant to fish and wildlife rather than a WAC under the Growth Management Act. There are publications available involving the use of best available science under the U.S. Endangered Species Act and using best available science in Fisheries Management. The Commission should search for these sources, review them, and craft a policy that is in line with the Committee's function; management of fish and wildlife.

Comment #203
5/24/2024 11:29 AM

To the point. The demonization of hatchery Salmon production and proponents of “natural salmon production has run its course. A course to failure . On the other hand 5 to 6 decades of hatchery production during the last century proved a success. A success in terms of mitigating damage to Salmon runs none by the demands of modern socioeconomic society. Ie. A maintenance of a biomass for commerce for coastal , and tribal communities. A maintenance of a biomass to with stand phenomena

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Comment #204
5/24/2024 11:57 AM

We, all of us...tribe, recreational and commercial, need more salmon and hatcheries are the best and most logical solutions. Please support funding and good management of the existing hatcheries and start providing more for the future.

Comment #205
5/24/2024 11:58 AM

I encourage the Fish and Wildlife Commission to review the White House Memorandum on Indigenous Traditional Ecological Knowledge and Federal Decision Making from November 15, 2021, and to ensure that Indigenous Science is provided equal prominence in the Best Available Science policy as western sciences. It is critically important that the Commission does not marginalize critical knowledge sources that have extensive observational and historical experience in adaptive management to the benefit of natural resources. By recognizing and integrating indigenous science in policy development, the Commission will improve conservation outcomes and policy decision-making.

Comment #206
5/24/2024 2:38 PM

Time to get the hatcheries back in business. The Wild Fish Conseviencey is an elitist group that has been shown to be wrong time and time again.

Comment #207
5/24/2024 2:59 PM

I’m against your “ best available science “. This is something that is not necessarily or wanted. There is already several departments with biologist and scientists that have a plan that has been worked on and studied for several years. Now is the time to see the benefits from all of the work that has been put into this management plan. I’m strongly against this “ best available science “ plan.

Comment #208
5/24/2024 3:10 PM

It’s imperative to make more Hatchery fish/Salmon. We need the enactment of the comanager policy to not only support the whales in puget sound but to keep our efforts tuned to more Salmon hatchery production. The Tribes will

need to be involved in this conservation of Salmon. We need the best for moving forward with more Salmon hatchery production in the system. Sincerely, Todd Bennin

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Comment #209
5/24/2024 3:41 PM

Thank you for this opportunity to comment of the draft policy concerning 'Use of Best Available Science" in the decision-making process. Having been in the decision making process in construction consulting, search and rescue management, volunteer team management and a host of other group decision-making situations for over forty years I can tell one thing; 90% of the information required to make ANY DECISION is available right in front of the committee at the time they request more information. NO AMOUNT of further research will yield any more than 1% at best with further delay and expense. Look at how many "Blue Ribbon Committees" have been formed by countless government bureaucracies just in the past few months. The examples are endless and will continue to be because government bureaucracies are for the most part unaccountable and have no penalty for poor performance. This "Use Best Available Science" is code for allowing personal biases and current "trends" to influence data and evidence right in front of their faces. Strike this damaging, damning and immature verbiage from the draft policy and tell the commissioners to get to work.
Thank you again for this opportunity

Comment #210
5/24/2024 3:52 PM

We am writing this note to express my opinion concerning the "Best Available Science" policies that are currently being reintroduced in an attempt to reinstate third party conversation and or information being presented to WDFW This issue was recently voted on by the commission with the majority siding with the WDFW and Tribal Co managers. This is nothing more than a veiled attempt to again include a third party influence into the conversation. The WDFW and Tribal Co manager Biologists/Scientists are the ones that should be making and advising on the decisions concerning Washington State policies. Not a third party individual or group that does not answer to the state or its user groups.
Again we appose the draft Commission Policy on the use of "Best Available Science."
Ken and Natalia Townsend
Again we are in opposition to the
Please do not allow this draft Commission Policy to continue as stated above this issue has been previously debated and voted upon by the commission. It seems to me that it is time to move a head with the issues at hand instead of wasting precious commission time on past issues that have already been resolved by a majority commission vote.

Comment #211
5/24/2024 3:56 PM

To the point: The demonization of Hatchery production promoted by an ideology void of pragmatism has got to end. There is proof that from the initiation of the 1932 Mitchel Act Salmon Hatcheries successfully mitigated the damage done to " natural" natural Salmon runs. This "damage" or alteration of natural Salmon habitat was rationalized in order to accommodate the needs of growing modern populated world. This referencing reclamation projects providing hydropower , irrigation, flood control ect. Yet the biomass of Salmon still functioned with providing enough fish for a resource of commerce for coastal communities and tribal communities. Hatchery production also provided enough biomass to withstand adversarial environmental events such as El Niño , droughts , that caused a significant die off of smolts. With hatchery production replicating the numbers that were once produced by natural runs we had a resource

that provided an extensive history of commerce and cultural socioeconomic benefits to all citizens. It's time to bring Salmon Hatcheries back their intended function.

Comment #212
5/24/2024 6:28 PM

Please add any available funding to increase the number of hatcheries producing salmon and steelhead throughout the state of Washington. We need fish and we need jobs in the science field.

Comment #213
5/25/2024 6:36 AM

We need co managers that strive to enhance our fishery ! Build more hatchery's not shut them down with input from the tribes n comanagement

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Comment #214
5/26/2024 7:27 AM

I am urging you to NOT adopt this policy for the following reasons: Science is ever evolving, and is changing constantly, which can disprove old science.
Overall, trying to quantify the "best available science" is not applicable because every group has their own science/scientists that will disagree with each other. This wording alone says that there are many sciences out there, and you are trying to pick the best one? This leads to the question of which one is right, which ones are wrong, and who do you select?
There is no such thing as one size fits all in science. There are always issues and factors that change every outcome. Every situation is always different and needs to be dealt with that way. That's the purpose of having a commission is to work out these issues on an individual basis.
We have NOAA, PFMC, WDFW staff, and tribal biologists/scientists to oversee fisheries and other natural resource issues to have the world's best scientists decide. They have the power to shut down any issues that your "best available science" policy causes.
Tribes have to be involved in all natural resource management as they are co-managers of the resources. There was no mention of tribes in this draft document. After we worked for 8 years building the Co-Manager hatchery policy. This proposed policy and the conservation policy are going to cut the legs out from under the co-manager hatchery policy that was voted on and passed by the current commission.
This policy would open the door to overturning the new co-management policy and could severely restrict increases in hatchery production that have been approved.
Again, i am AGAINST ADOPTION of this policy.
Regards,
Gary Holmquist

Comment #215
5/26/2024 7:53 AM

The answer is simple. Flood the waters with hatchery fish. When this is done all the concerns for Whales, Treaty Tribes, pinnipeds, commercial fishermen and recreational fishermen will be met. Additional benefits are the local economy's which support any of these stakeholders, will flourish. We are seeing a constant curtailment of recreational fisheries in area 6.
Turn over all hatcheries on tribal lands to the treaty tribes, Provide them the ways and means to raise hatchery fish so as to get the largest return possible. Put some teeth in it so there is stated goals that must be met. The tribes want treaty fish, it's the heritage and life style. I think the state would be richly rewarded with flooding the waters with hatchery fish. There are no more wild strains of salmon left and you all know that. We the people pay the freight on this and want a just return on our investment. .

Comment #216
5/26/2024 10:08 AM

The answer is simple, flood the water with hatchery fish. The whales, treaty tribes, pinnipeds, commercial fishermen and recreational fishermen will benefit from this action. In area 6 we face ever increasing curtailments to fish for salmon. The tribes want hatcheries because it directly affects them. If they get 50 per-cent now double or triple the number of hatchery fish put out by hatcheries, imagine what their numbers would be with increased hatchery production. This is a no brainer.
The local economies would flourish with increased recreational fishing, the state would flourish, it would be an economic boom.
There are no more pure strains of salmon left, you know that, history does not lie. Please dramatically increase hatchery production and then go pat your self on the back for a job well done.

Jarred Johnson
4/12/2024 12:25 AM

Dear Commissioner,

Thank you very much for your service on the FW Commission. I would also like to extend my appreciation for identifying the need for a Best Available Science Policy (BAS). The science-policy interface is extremely complex, and the identification of BAS should provide scientists and non-scientists clear and easy assessment techniques for evaluating the reliability of scientific information. There are volumes of literature on this topic, and distilling that information into a 1-page policy is also exceptionally challenging. In general, I am very supportive of this effort and the progress that has been made; however, in my opinion, there are three sections within the Final Draft dated 3/25/24 that should be revised to greatly benefit the utility of the final product.

The first sentence in *Section e* starts out very strong and provides excellent guidance; however, the overall value of the document is eroded by the second sentence, and I recommend that it be removed prior to adoption. The excerpt I am referencing is appended below:

"It is understood that while consideration of scientific findings must form the basis for Commission decisions, social values (including risk tolerance) and the professional experience of Commissioners are integral to the decision-making process."

This sentence doesn't provide guidance and appears as though it was added to ensure that Commissioners can incorporate nearly anything into their decision making, basically validating the status quo. Additionally, it isn't focused on utilizing or identifying the Best Available Science, which is the intent of this policy, and therefore it is inappropriately incorporated into this document.

Similarly, the last sentence in *Section f* adds ambiguity and doesn't support a Best Available Science Policy. See excerpt below:

"Commissioners may provide additional scientific references or information for consideration in the development of science products by the Department."

Of course, I agree that Commissioners are entitled to provide scientific references/literature that is salient to the matter; however, by adding "or information," you are inviting all manner of content into critical decision-making. Therefore, I recommend an edit to remove "or information" from this paragraph. Alternatively, a list of appropriate sources of information could be added; however, this could be challenging to achieve consensus on.

Lastly, my final recommended edit is with the final sentence in *Section g.* Adaptive management is self-evident in how we manage ALL fish and wildlife resources within the State, and therefore it seems unnecessary to explicitly articulate in this document, which should focus on identification and incorporation of Best Available Science into decision making, rather than tangential comments about adaptive management.

If I may, I would like to make a recommendation for an additional attachment to the BAS that identifies and ranks "Science," because this document should go further to define BAS. Like I mentioned in my introduction, there are a litany of resources available to support a well-structured BAS Policy. The citation that I appended at the bottom of this email provides one example. My recommended attachment would include a table that provides clear guidance to help identify the reliability and applicability of the science presented, similar to Section C(i) (Sullivan *et. al.* 2006). For example, Tier 1 science would be empirical, local, timely, peer-reviewed, and salient to the question. Tier 2 science would be empirical, regional or state-level, peer-reviewed, and salient; Tier 3 would be model-based, and so-on to anecdotal unsubstantiated reports. I am certain that Department staff within the Science Program would do a better job defining this hierarchical tier categories than me.

Finally, I would like to say thank you one more time for your commitment to the commission and management of natural resources throughout Washington State. If you have any questions regarding my comments, please feel free to reach out via email or phone at your convenience.

Sincerely,

Jarred Johnson

Winthrop, WA

509-881-1462

Sullivan, P. J., J. M. Acheson, P. L. Angermeier, T. Faast, J. Flemma, C. M. Jones, E. E. Knudsen, T. J. Minello, D. H. Secor, R. Wunderlich, and B. A. Zanetell. 2006. Defining and implementing best available science for fisheries and environmental science, policy, and management. American Fisheries Society, Bethesda, Maryland, and Estuarine Research Federation, Port Republic, Maryland.

Larry Lowe
4/14/2024 10:19 AM

Dear Commissioners,

Please consider including the following in the Use of Best Available Science Policy.

If available data is not sufficient to make an informed decision, the decision should default to the resource (fish and wildlife) rather than harvest.

Sincerely,

Larry Lowe

Seann Mumford
4/16/2024 11:57 AM

Commissioners,

I wanted to chime in with a few comments regarding the draft use of best available science policy.

Paragraph b contains language regarding a balancing process the Commission should go through/consider. It's not clear to me that the process takes into account the feasibility at the time an issue is before the Commission of obtaining greater scientific certainty, irrespective of questions of time and money. For instance, if the level of certainty is as high as it can be given the currently available technology there wouldn't seem to be any additional efforts that could be taken in the short-term to reduce uncertainty. In this situation, it would be inappropriate to consider feasibility a "cost" under the current language of the draft policy, because the likelihood of the necessary new technology being developed, and the time and money required to do so, may not be calculable, at least not realistically.

I'd also encourage you to consider adding an express reference to impact to hunting and fishing opportunities in the parenthetical containing examples of "costs" in paragraph b.

The first sentence of paragraph g is confusing and somewhat circular. If the agency took information into account in developing a recommendations, how would considering" it (e.g., taking it into account) again help avoid bias?

I imagine paragraph g will lead to some lively discussion among the Commissioners, because the outside/3rd party review language seems like it could lead to a real quagmire. I could see it being used as a way to delay/stall decision making processes, and that it could create discontent among staff. I hope there will be a discussion about if other state game agencies have adopted this sort of a review mechanism and, if that's happened, how it's worked out.

Sincerely,

Seann Mumford

Emma Helverson
4/17/2024

Chair Baker and Vice Chair Ragen,

In reviewing the agenda for this weekend's Commission meeting, I discovered the Commission will consider a final decision on the current draft of the best available science policy. I am concerned that the Commission is being asked to move forward with a decision on this policy when the public has had little to no time to review. Speaking for myself, I was not aware until today that a final draft had even been released to the public and at this time I have yet to review the policy so I can provide informed comments to the Commission. I have now come to understand that the policy was only released on Friday to the public. I was also unable to find any information on the Commission policy page or on the Commission home page describing the development of this policy or prior drafts. The draft policy is also not linked in the section of agenda related to the final decision, and it was not immediately clear to me it was linked in a previous agenda item related to the Fish Committee.

I want to emphasize that Wild Fish Conservancy fully supports this effort to develop a policy that guides how the Commission will consider best available science when managing policies. As scientists and conservationists, we believe use of best available science is critical to ensuring resource management is well-informed, constantly improving, and most likely to be successful. We also believe it's imperative for the Commission to have a process that encourages and allows for outside perspectives from scientists and experts outside of the Department of Fish and Wildlife that can build on the vast knowledge of the Department's science staff and supplement gaps in expertise. We also believe an effective best available science policy will play a critical role in avoiding conflicts between the public and the Department that often require legal intervention.

I am sending this email as an urgent plea to emphasize my surprise and concern that this policy is being rushed to a vote in the absence of adequate public review. The failure to utilize best available is a common concern by the public that has been shared during various public comment opportunities and therefore it is clear the public has an interest in this consequential policy. I am writing to respectfully urge you to postpone a final decision on this policy to allow the public to weigh in in the hopes that this can demonstrate a commitment to public input and to avoid future conflicts over the Department and Commission's use of best available science.
.
I appreciate your consideration of my request and would be happy to elaborate further over the phone if that is helpful (484-788-1174). I also will attempt to quickly review the policy and provide high level thoughts in a letter today, but please note this will not reflect a thorough review.

Sincerely,

Emma
--
Emma Helverson
she/ her
Executive Director | Wild Fish Conservancy
P.O. Box 402, 15629 Main Street NE. Duvall, WA 98019
Cell: 484.788.1174 | Office: 425.788.1167
wildfishconservancy.org • Facebook • Twitter • Instagram

Fred Koontz
4/18/2024
Edited Verson

Final Review Draft: FW Commission Policy on the Use of Best Available Science

3.25.24

The purpose of this policy is to provide direction to the Department and Commission on the developmentand use of best available science, and to ensure the scientific integrity of scientific information when the Commission is addressing decision-critical questions.Commission..

Policy

a. The Commission is a policy setting body with statutory authorities and responsibilities to protect the public wildlife trust for all current and future beneficiaries. Its decisions should be informed by a foundational understanding of the agency's paramount purpose; norms of Washingtonians wildlife values; and application of "best available science." A key priority in this decision-making triad, is that the science-based evidence considered by the Commission resulted from studies that followed professionally-accepted scientific principles designed to ensure its integrity, and that the studies were conducted without avoidable bias.

b. Science integrity relies on research conducted with objectivity, honesty, openness, fairness, accountability, and stewardship. These core values help to ensure that research advances knowledge. Integrity in science means planning, proposing, performing, reporting, and reviewing research in accordance with these values. (National Academy of Sciences, 2017). When conducting research or presenting the scientific results of others to the Commission, Department scientists should demonstrate that the research was conducted with these essential principles. .

c. The Department will work through the Department's Science Divisions to create and maintain scientific integrity and provide timely, comprehensive scientific support for Commission decision making. The Commission shall use Best Available Science, including Social Science, Political Science, and Ethics, in decision making. See Attachment 1.

d. The Commission realizes that bias is inherent in the scientific process and can stymie good decision making . Consequently, Department scientists and managers are asked to minimize bias when presenting to the Commission by sharing the full diversity of research conclusions on a subject. In addition, recognizing that science is never complete and knowing that each study varies in how certain the evidence points toward a policy direction, the staff is asked to discuss the level of certainty of their recommendations based on the scientific evidence. e.. The Commission will identify policy objectives and information needed from the Department to inform decision making. The Department will work with the Commission to co-create key questions for decision making in an iterative fashion while recognizing the time and financial resources that agency scientists may need to provide that information, and the fact that some information may be unknown or incomplete.

c

f. The Commission and the Department will be explicit in how natural and social science information is used in conjunction with normative values, applicable law, and WDFW's legal mandate.. It is understood that while consideration of scientific findings inform the basis for Commission decisions, l public values and the judgement of the Commissioners are integral to the decision-making process.

g. Commissioners should always work through the Commission's Committee process and sometimes additionally in small groups with the appropriate Department staff prior to public presentation to ensure a common understanding of the presentation's major scientific outcomes, conclusions, level of certainty, and diversity of the scientific evidence. Commissioners, and the public through oral or written testimony, may provide additional scientific references or information for consideration during the development phase of science products by the Department.

h. While the Commission and the Department seeks to avoid bias in their interpretation of scientific studies by, for example, considering a diversity of research sources used in developing recommendations, it is expected at times there will be disagreements, including disagreements with the public. Typically, the information provided by Department staff will be considered acceptable and sufficient, however, the Commission may request to hear testimony from outside experts or conduct third-party reviews (vetted with explicit criteria and a transparent process. The Commission will provide specific questions about the contested science or uncertainty that is decision critical. (refer to f)

i. The Commission understands that science can tells us the consequence of our actions, but cannot tell us what to do. The Commission in order to support their decision making may request that the Department use of a variety of methods, such as "Structured Decision Making" or facilitated ethical framing techniques.

Fred Koontz
4/18/2024
Clean Verson

Final Review Draft: FW Commission Policy on the Use of Best Available Science

3.25.24

The purpose of this policy is to provide direction to the Department and Commission on the development and use of best available science, and to ensure the scientific integrity of the scientific information used by the Commission when addressing decision-critical questions.

Policy

a. The Commission is a policy setting body with statutory authorities and responsibilities to protect the public wildlife trust for all current and future beneficiaries. Its decisions should be informed by a foundational understanding of the agency's paramount purpose; social norms of Washingtonians wildlife values; and application of the best available science. A key priority in this decision-making triad, is that the science-based evidence considered by the Commission resulted from studies that followed professionally-accepted scientific principles designed to ensure its integrity, and that the studies were conducted without avoidable bias.

b. Science integrity relies on research conducted with objectivity, honesty, openness, fairness, accountability, and stewardship. These core values help to ensure that research advances knowledge. Integrity in science means planning, proposing, performing, reporting, and reviewing research in accordance with these values. (National Academy of Sciences, 2017). When conducting research and presenting scientific results to the Commission, Department scientists should demonstrate that the research was conducted with these essential principles.

c. The Department will work through the Department's Science Divisions to create and maintain scientific integrity and provide timely, comprehensive, scientific support for Commission decision making. The Commission shall use best available science, including social science, political science, and scientific ethics, in decision making.

d. The Commission realizes that bias is inherent in the scientific process and can stymie good decision making. Consequently, Department scientists and managers are asked to be transparent about their own bias and minimize bias when presenting to the Commission by sharing the full diversity of research conclusions on a subject. In addition, recognizing that science is never complete and knowing that each study varies in how certain the evidence points toward a policy direction, the staff is asked to discuss the level of certainty of their recommendations based on the available scientific evidence.

e. The Commission will identify policy objectives and information needed from the Department to inform their decision making. The Department will work with the Commission to co-create key questions for decision making in an iterative fashion while recognizing the time and financial resources that agency scientists may need to provide that information, and the fact that some information may be unknown or incomplete.

f. The Commission and the Department will be explicit in how natural and social science information is used in conjunction with normative social values, applicable law, and WDFW's legal mandate. It is understood that while consideration of scientific findings informs the basis for Commission decisions, public values and the judgement of the Commissioners are integral to the decision-making process.

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h. While the Commission and the Department seeks to avoid bias in their interpretation of scientific studies by, for example, considering a diversity of research sources used in developing recommendations, it is expected that at times there will be disagreements, including disagreements with the public. In many cases, the information provided by Department staff will be considered acceptable and sufficient, however, the Commission may request to hear testimony from outside experts or conduct third-party reviews (vetted with explicit criteria and a transparent process). The Commission will provide specific questions about the contested science or uncertainty that is decision critical.

i. The Commission understands that science can tells us the consequence of our actions, but cannot tell us what to do. The Commission in order to support their decision making may request that the Department use of a variety of methods, such as "structured decision making" or "facilitated ethical framing techniques."

[I did not include Attachment 1 as I am not sure it is really needed.]

Robert Sudar
4/22/2024

To: Washington Fish & Wildlife Commission

From: Robert Sudar

Re: Public Comments and Best Available Science

Chair Baker and Fellow Commissioners:

You got nowhere close to my number for public testimony last Friday and I had a prior commitment on Saturday so I am sending my comments to you. Public testimony has obviously become much more complicated since the introduction of online comments as an option. I have to admit that I usually use that method rather than spending 3+ hours on the road and waiting for my turn for 2-3 minutes to speak. I think that in-person testimony is more effective, plus there might be an opportunity to interact with a Commissioner or two, but it ends up a matter of weighing options and available time.

I like the idea of randomly selecting the speakers rather than going by who signed up first. I noticed that some speakers signed up over a week in advance. I hadn't even looked at the schedule by then, and sometimes a presentation isn't posted right away so I choose to wait and see what will be covered before deciding if I should speak. Since wolves, bears, cougars and general hunting rights dominate the conversation every meeting these days, I'd rather see the speakers ordered by planned topic, if possible. For instance, a wolf person followed by a bear advocate and so on, then back to the wolf silo. That might provide an opportunity for a speaker like me, who typically discusses fisheries issues, or anyone with a different subject on which to comment, to have a better chance of getting a few minutes at the mic.

Not allowing Commissioners to ask questions of a speaker may save time but it does nothing to resolve conflicting testimony. As I've said before, if separate testimonies provide obviously conflicting views, and both claim to be factual, staff should be asked to interject. Otherwise, no one learns and everyone feels justified in maintaining their existing view. I also don't see a lot of note-taking amongst the Commissioners during public testimony. The end result is that public testimony fulfills a meeting requirement but does little to educate the listeners on either side of the podium. And if the public realizes that the Commission expects factual testimony it might send a message to some of the speakers.

I think it would benefit the Commission at each meeting to invite a user group to give a presentation on their role in resource management. It may be an extractive use or a non-consumptive activity, but considering the breadth of your responsibilities I think it would benefit the Commission. In terms of our Columbia River commercial fishery, the only time we've spoken to the full Commission outside of a few minutes of public testimony was a point/counterpoint presentation with a recreational group intent on eliminating our fishery. That's hardly a positive atmosphere for educating or informing. A few years ago, several members of the Commission went on a Columbia River gillnetter for a night and experienced the fishery firsthand, and I know that it was very enlightening for them. That may be an extreme example, but even a 20-30 minute discussion in a meeting can provide a lot more understanding of challenging topics.

On the subject of Best Available Science, I first want to compliment you on choosing to not make a decision on that topic and instead extending the comment period. I want to point out that nowhere in your policy do you suggest consideration of institutional knowledge or experience in the field as contributors to determining the Best Available Science. In matters of commercial fishing, understanding tides and fish behavior and harvest tools, for instance, are not something you learn in college, but they play a big role in resource management and need to be considered. Also, there is a reference in Item (d) to utilizing Social Science and that it is included in the attachment but I don't see it mentioned anywhere. Effective resource management, including harvest, depends on much more than what can occur in the laboratory, which is what the attachment seems to be based upon.

In considering both of these issues – public testimony and Best Available Science - I can't help but think back to the 2012 process that created Columbia River Policy C-3620, in which I was a workgroup member, and compare it to almost all of the policy processes since then and the rulemaking flowchart presented by staff on Friday. From the Oregon governor's suggestion of a new policy in mid-August that year, to the single meetings in September and October and a final committee vote in November, followed by full Commission approval in January of 2013, a monumental change in salmon policy took place in a fraction of the time usually required. In contrast, the joint-commission review of that failed policy took over 18 months and eventually led to the modest improvements in the current Policy C-3630, which Oregon has refused to consider for over 3 years. One former Commissioner stated in 2017, when voting for an update of C-3620, that as a scientist he had hoped to bring science to Commission policies but he found that politics often played a bigger role in his decisions. What a disappointing thing for members of the public to hear, knowing they get only a few minutes to comment on actions that have an enormous impact on their lives and their communities.

Thank you for this opportunity to comment. As always, I would be happy to answer any questions you might have about the points I made. I rely on facts, data and science in formulating the positions I take, and have tried to do that here, too.

Robert Sudar, Columbia River Commercial Advisor for WDFW

Longview, WA

Kent and Irene Martin
4/29/2024

Testimony of Kent and Irene Martin, P.O. Box 83, Skamokawa, WA 98647, re the Final Review Draft: FW Commission Policy on the Use of Best Available Science.

We have read with interest the Final Review Draft: FW Commission Policy on the Use of Best Available Science and have a number of comments to make. We are speaking as Columbia River (C.R.) commercial fishers who have a long family history of fishing and living in the lower Columbia River region.

Policy Section e. We are somewhat concerned about the implication of "the professional experience of Commissioners are integral to the decision-making points." Each commissioner will bring his or her own background experience to the Commission, which may produce fruitful dialogue and solutions to problems. However, we do not believe that the professional experience or advice of a commissioner should over-ride the staff's due diligence, research and information, unless errors in that information exist. We have all had experiences with commissioners who were not trained in the particular science of a fisheries issue before the Commission or did not have the experience in a particular field to make an informed choice. We have also had experience with commissioners who had been misled by false information. This is a vexed question, and also leads into how commissioners are chosen for the Commission. Well-vetted staff expertise should be the key to such decision-making. We also suggest adding in the phrase "and who or what is bearing the largest measure of risk" after the phrase "(including risk tolerance)" in sentence 2 in this section.

Policy Section g. This section includes the Washington Academy of Sciences for the purpose of reviewing key scientific disagreements. That is a national organization. We believe you mean the Washington State Academy of Sciences. We suggest broadening this section to include other entities. The Washington State Academy of Sciences is somewhat Puget Sound-centric in its members and in the projects it takes on. As C.R. commercial fishers, we see very little on the Academy's website that is focused on either our locale or on Columbia River fish and fisheries. It could be argued that the Washington State Academy of Sciences or similar groups aren't far removed from an Advocacy Group, depending upon the subject matter or member makeup and perspective. It is certainly appropriate for individual commissioners to seek to expand their understanding of a subject where possible. However, it doesn't seem appropriate to prescribe in a policy that a particular entity becomes part of a process in setting state policy or regulations. We also note that there is no inclusion of NOAA and/or tribal fisheries department scientists or representatives as possible sources of review of contested science. We suggest that obtaining the co-managers' assistance in clarifying the pertinent science on fisheries topics where there is uncertainty might be very helpful. The term "peer-review" is often used in scientific circles. We suggest that the peers when it comes to creating fisheries policy are not necessarily academics, but the people who are doing the actual fishing and/or the regional managers and co-managers who are responsible for the resource.

Policy Section h. We note the use of the term "adaptive management." A definition of this term should be provided, so that it is clear what the Commission means by it. Similarly, the term "Structured Decision Making" needs an explanation/definition. We also notice that the two sentences in this section differ. The first sentence says that "The commission **or** the Department may request…" The second says that "The Commission **and** Department may request…" Is there a reason for hitching the two entities together in the second sentence? If so, the difference should be explained.

Finally, we would include comprehensive review on a regular basis for biological, social, and economic outcomes and their projected alignment with predicted and/or anticipated results both long and short term. For example, the comment

in the document “Comprehensive Evaluation of the Columbia River Basin Salmon Management Policy C-3620, 2013-2017,” by Bill Tweit, Ryan Lothrop and Cindy LeFleur (Washington Dept. of Fish and Wildlife, Nov. 201080, p. viii) regarding “Harvest Reform” in C.R. Policy C-3620 not meeting expectations, hardly describes the biological, economic, social and environmental/ecological malfunctions that policy caused. Its failure was largely whitewashed, and Policy C-3630 has not made up for the catastrophic decline and overwhelming risk assumed by C.R. commercial fishers and fish. To name just two issues, PHos (Percentage of hatchery-origin spawners in natural spawning habitat) is worse, and hatchery surpluses have dramatically increased.

We appreciate the Commission’s attention to obtaining the best available science. This is an important factor in fisheries management and salmon recovery. We hope our comments aid in this effort.

Sincerely,

Kent and Irene Martin

Bill Bakke – Independent
5/6/2024

Washington Department of Fish and Wildlife

Final Review Draft: FW Commission Policy on the Use of Best Available Science

May 6, 2024

3.25.24 The purpose of this policy is to provide direction to the Department and Commission on the development, use of, and access to, best available science and to ensure the integrity of scientific information in addressing decision-critical questions throughout Commission decision making.

Policy

a. The Commission is a policy setting body with statutory authorities and responsibilities to manage public trust fish and wildlife resources and its management decisions should be informed by salient and credible science. Therefore, it is a priority of the Commission that science provided to the Commission comports with accepted scientific principles and is, as much as possible, without bias.

Comment: A policy must have a primary purpose for which management and science are directed to achieve. That primary purpose is to prevent serious depletion of fish and wildlife so that the public's use of these natural resources can be maintained and accessible for their benefit. Therefore, the purpose of fish and wildlife management is to secure their viability. The commission, department and science priorities are to manage fish and wildlife for public use and appreciation and prevent depletion such that these public benefits are not abridged by the Endangered Species Act or extinction of native fish and wildlife. Therefore, it is necessary for the Commission to know which populations of fish and wildlife are viable and the role of the department and other natural resource management agencies in achieving viability for native fish and wildlife populations.

b. The Commission will identify policy objectives and related decision-critical information needed from the Department to inform decision making. The Department will work with the Commission to co-create key questions for decision making in an iterative fashion while recognizing the time and financial resources that agency scientists may need to provide that information, and the fact that some information may be unknown or incomplete. The Commission should weigh the need for greater scientific certainty against the costs (in time, money, and management outcome [e.g., wildlife population declines, extinction, etc.) of reducing uncertainty. The Department will inform and develop risk analyses that inform tradeoffs at the request of the Commission, including the risk of no action.

Comment: Related critical information provided by the department, scientific sources, and the public are clearly evaluated so that funding issues alone are not the primary response to recommendations by the department that are used for rejection of critical recommendations affecting management for conservation of natural resources. In other words, the recommendations are sound but the department response is merely there is no funding to implement the recommendations.

In addition to department scientists an independent scientific team through the University of Washington should be funded by the Washington Legislature to provide evaluation of issues and make recommendations for solutions to solve fish and wildlife issues and problems.

Conservation of fish and wildlife habitats and populations should be the primary purpose of the department in cooperation with other state, tribal and federal agencies rather than mitigation. For example, fisheries provide the department with user recreational fees and commercial harvest fees. The legislature provides funding for department management including fish production. However, the cost-benefit evaluation is not required to

evaluate cost effectiveness. In addition, mitigation funds are used to replace damaged natural fish and wildlife without cost-effectiveness evaluation. The result is that public fish and wildlife continue to decline.

c. The Department will work through the Science Divisions to create and maintain scientific integrity and ensure the best possible scientific support for Commission decision making.

Comment: Since 1875 management agencies have managed fish and wildlife as a commodity that contributes funding through fees to the agency. Historically, scientific evaluation and recommendations have been ignored primarily in fisheries when it interferes with commodity uses and production. In wildlife management harvest is controlled and habitat is protected to maintain game animals and non-game wildlife. In fish management artificial production is used to maintain fish supply while habitats are not protected through cooperation of other state and federal agencies and municipalities. Therefore, mitigation rather than conservation of fish populations dominates state, federal, and tribal fisheries management. The outcome has been native fish population decline, extinction, and ESA protection. To solve the native fish management problem, the department should establish a Natural Production Program focused on conservation criteria affecting fish population status, genetic resources and habitats for native fish species. In addition, in cooperation with the University of Washington, an independent scientific committee should be established to assist the Commission with internal and external advice on native fish conservation management policy.

d. The Commission shall use Best Available Science, including Social Science, in decision making. See Attachment 1.

Comment: The best available science depends on having an in-house and independent external scientific evaluation to resolve commodity production and wild native fish conservation issues. The department and the public needs to establish an external independent scientific committee to address conservation policy development and implementation by the commission and department.

e. The Commission and the Department will be explicit in how natural and social science information is used in conjunction with applicable law and WDFW's legal mandate for decision-making and recommendations. It is understood that while consideration of scientific findings must form the basis for Commission decisions, social values, (including risk tolerance) and the professional experience of Commissioners are integral to the decision-making process.

Comment: Based on my experience, the commission is selected to represent user groups of fish and wildlife resources of the state rather than persons that represent the public interest in fish and wildlife conservation and uses. It is also my experience that having more women than men on the commission advance conservation management of public fish and wildlife.

f. Commissioners should work through the Committee process or with the appropriate science and management staff from Divisions/Regions (in small groups) prior to public presentation to ensure a common understanding of the presentation's major scientific outcomes, conclusions and areas of remaining disagreement or uncertainty. Commissioners may provide additional scientific references or information for consideration in the development of science products by the Department.

Comment: State wildlife departments are advocates of fish and wildlife users rather than conservation of public resources. That is based on how they were established in the 1930s to promote user fees to fund management of fish and wildlife. Since then, conservation interests have become a important fish and wildlife concern. The result is department managers are concerned about this transition from user group interests to public conservation concerns. Therefore, control over commission decisions is important to maintain the status quo. A requirement that commissioners meet with department staff and managers prior to making decisions is proposed to have more control over the commission decisions. A more appropriate approach would be to have commissioners and department staff discuss management issues independent of commission public meetings on fish and wildlife decisions. Instead, these meetings should be in the field with department staff and those of other natural resource agencies to discuss issues related to solving problems.

g. The Commission and the Department will seek to avoid bias in their interpretation of scientific studies by considering all relevant sources of scientific information used by the agency in developing recommendations. In areas of contested interpretation or application of science, or conflicting results of important scientific studies, the information provided by Department staff shall be considered acceptable and sufficient. However, the Commission may request third-party review (vetted with explicit criteria and a transparent process) or the Washington Academy of Sciences to review key scientific disagreements. The Commission will provide specific questions about the contested science or uncertainty that is decision critical.

Comment: The science associated with salmon and steelhead management is extensive and published in peer reviewed private journals. This means that the Commission and the public have limited access to scientific information relevant to conservation of salmonids. Apparently, the Department has not established criteria for the conservation management of salmonids and other wildlife. While the Commission and Department have Justice Department advisors available to answer Commission questions and to provide evaluation of Commission proposed decisions, there is no independent scientific advisor available to the Commission to address management decision impacts on fish and wildlife. In addition, the Department and Commission have not adopted criteria for fish and wildlife conservation to guide decision making and have no independent scientific access to evaluate proposed decisions. The University of Washington scientists could provide a review that is independent of Department scientific and management bias. Therefore, an independent Science Team should be developed to address issues confronting management by providing scientific evaluation distributed to the Commission and the public.

h. The Commission or the Department may request the use of decision support tools e.g. Structured Decision Making, as a process for considering tradeoffs for achieving specific goals and objectives for resource management. The Commission and Department may request an adaptive management approach to address risk to resources or opportunity.

The Department is primarily interested in user group political support and funding to fish and hunt. Therefore, decisions will serve user groups rather than the public interest in conservation of fish and wildlife in the state even though the public pays for Department programs through the state legislature and in federal taxes. For example, a recent study by Oregon State University found that over 40 years the public paid $9 billion for restoration of fish habitats in the Columbia River Basin but could find no benefit for wild fish recovery. A recent economic review of Mitchell Act Hatcheries in the Columbia River showed $11 billion spending deficit. While the public is paying for habitat, conservation, and hatchery replacement of wild salmonids, there is no benefit for ESA protected wild populations. Therefore, Department control over information and decisions by the Commission on science and policy development will continue serve the harvest interest groups rather than the Washington public interest in native fish, wildlife and habitats they depend upon. The Department and Commission therefore need to establish fish and wildlife viability standards and management programs to achieve them. The Commission needs to have independent scientific review and support for fish and wildlife conservation. The Department and Commission need to establish cost-effective evaluation for funding proposals to the Washington legislature. The Department and Commission need to invite the public interest organizations to develop decisions that support the public interest in conservation rather than just user group appeals for support.

Kim Thornburn – Independent
5/15/2024

Re: draft policy on the use of best available science

Commissioners:

I am writing in strong opposition to the draft policy on the use of best available science, both as it's written and for its purpose in the first place. I'll first deal with the latter.

The policy is an unnecessary preemption of collaborative decision-making. In fact, its purpose is to institutionalize and advance the harm to communities of wildlife stakeholders and advocates that this commission has already inflicted. Insisting on science that is "decision-critical" to policymaking is characteristic of the gas-lighting practiced by the current commission.

According to the statutory mandate (RCW 77.04.012) and the commissioner duties statute (RCW 77.04.170), diverse community values are expected to loom large in commission decisions. The current commission has repeatedly demonstrated its inability to respect varied cultural values and uses the demand for "best available science" to claim "proof" that its values, perspectives that mirror those of a vocal fringe group, are the only values that should affect its decisions. Claiming "best available science" is "decision-critical" is an abuse of commission responsibilities.

The word "science" does not appear in the statutes about fish and wildlife commissioner mandates, duties, qualifications, or appointments. There are RCW Chapter 77 statutes (e.g., RCW 77.04.120) that indicate research and reports of research are the responsibility of the director. The draft policy asserts unauthorized commissioner agency over science, is unclear, and lacks definition about what it is demanding. The appendix that is referenced to provide a definition of "best available science" describes processes. Yet, the reference to "decision-critical" signifies the meaning is scientific outcomes and to the current commission, that implies selected research studies whose purported results support the personal values of individual commissioners.

Furthermore, the WAC 365-195-905 from which the policy appendix is drawn has nothing to do with WDFW statutory responsibilities. The WAC's statutory authority, RCW 36.70A.172 Critical Area-Designation and Protection-Best Available Science to be Used, refers to the adoption of critical areas under the Growth Management Act. There is no reference to "best available science" in RCW Chapter 77.

"Consideration of scientific findings" does not "form the **basis** for Commission decisions" (emphasis added), as proclaimed in paragraph e of the draft policy. RCWs 77.04.012, mandate, and 77.04.170, commission duties, designate resource allocations as commission obligations. While such decisions often need to be science informed, sharing resources among various stakeholder communities are ultimately values decisions. The duties and responsibilities assigned to the director and his staff in the mandate and other RCW Chapter 77 laws include the expectation that science is considered in wildlife management and the formulation of policy. It is the director's responsibility to ensure that commission decisions are science informed, when needed.

The statement in paragraph e of the draft policy that "professional experience of Commissioners are (sic) integral to the decision-making process" is another abrogation of statute. RCW 77.04.040, Commission Qualifications, does not include profession or professional experience among commissioner qualifications. Rather, commission appointees are to be lay people who represent the diverse wildlife stakeholder communities.

Abandon the policy on the use of best available science while it is still a draft. Its adoption would be a continuation of this commission's abuse of authority by claiming policies that extend far beyond its statutory power while neglecting its obligations to Washington's diverse wildlife stakeholder communities.

Kim Thorburn
Spokane, WA
May 15, 2024

Jim Byrne – Independent
5/22/2024

May 22, 2024

Dear Commissioners,

I would like to address WDFW's use, or non-use of "Best Available Science"(BAS). First, let me say I am a 28-year veteran WFW fish biologist who worked in Region 5. I believe WDFW has excellent BAS, but often does not choose to use it. My personal experience is with stream buffers.

The "Best Available Science" on riparian buffer widths is addressed in the Washington Department of Fish and Wildlife's 2020 Management Recommendations for riparian ecosystems. *See* Rentz, R., A. Windrope, K. Folkerts, and J. Azerrad. 2020. Riparian Ecosystems, Volume 2: Management Recommendations. Habitat Program, Washington Department of Fish and Wildlife, Olympia, https://wdfw.wa.gov/publications/01988 ("WDFW Recommendations").

Specifically, the WDFW Recommendations state that "the width of the riparian ecosystem is typically defined by the outer edge of the zone of influence, which, in forested regions, is based on site-potential tree height (SPTH) measured from the edge of the active channel." WDFW Recommendations at § 1.3, p. 8. The SPTH is further defined as "the average maximum height of the tallest dominant trees (200 years or more) for a given site class." Id. WDFW Recommendations note that SPTH in Washington can be significantly greater than 100 feet, with mean tree heights ranging from 100-240 feet:

Mean heights of dominant trees in riparian old-growth forest of Washington **range from 100 to 240 feet** (Fox 2003). The wide range of heights reflects differences in site productivity, i.e., local differences in soil nutrients and moisture, light and temperature regimes, and topography.
WDFW Recommendations at § 2.2.3 (emphasis added).

Locally, Clark County has proposed a mere100' buffer for non-fish bearing streams. I notified the County and the assistant habitat manager that this is below WDFW's BAS, as referenced above. More specifically, the 100-foot RHA width for all type Ns streams does not represent the "Best Available Science" because the RHA width should not be limited to 100 feet. Rather, the RHA width should be 100 feet at a minimum but can and should be greater where the "Site Potential Tree Height" (SPTH) is greater than 100 feet. This had no influence on the habitat manager who told Clark Co. staff the 100' is sufficient, and this figure was confirmed in the County's Riparian Critical Areas Ordinance.

In a similar vein, in Feb, 2022, the habitat program manager was informed of a proposal to turn 330 acres of Tier 1 Forest land into a surface mine. There are streams in the area of Chelatchie Bluffs that contain listed steelhead and coho as noted on SalmonScape and in the field. No attention was paid to these streams, until they and adjacent wetland were destroyed by the Portland Vancouver Junction Railroad, to load trains from the mine. After the damage was done, when questioned how this could occur the manager stated the agency did not have jurisdiction.

This is not true. The railroad never completed or filed an HPA with WDFW as required. Penalties will be assessed by the federal EPA. WDFW now requires a 225' stream buffer, after the land and fish damage.

Best Available Science only works if the agency is willing to support it. This does not appear to be the case in Region 5. They need to do better, especially when the supporting literature has already been provided to them.

Sincerely,

Jim Byrne
Area 9 Fish Bio.

Ryan Bronson – Rocky Mountain Elk Foundation
5/23/2024

May 23, 2024

WDFW Commission
Natural Resources Bldg
1111 Washington St. SE
Olympia, WA 98501

bestavailablescience@publicinput.com

Reference: Best available science policy

Chair Baker and Commissioners,
The mission of the Rocky Mountain Elk Foundation (RMEF) is to ensure the future of elk, other wildlife, their habitat and our hunting heritage. We represent more than 225,000 members nationwide, with 12,517 residing in Washington. RMEF, with our partners, has completed 782 conservation and hunting heritage projects in Washington with a combined value of more than $134 million. These projects have conserved and enhanced 514,212 acres of habitat and opened or improved public access to 130,661 acres.

RMEF has advocated for scientific wildlife management since its founding. As an organization we invest in original research, often in partnership with state agencies including the Washington Department of Fish and Wildlife, or with universities including Washington State and the University of Washington. We do this to better understand how management decisions affect populations and conditions in the field. Peer reviewed wildlife research over the past century has helped develop the methods that enable modern wildlife agencies to sustain wildlife.

While the concept of a policy on the use of best available science is reasonable, RMEF finds the proposed draft to have several problems and the commission would be better served with the status quo rather than to adopt this proposal. Rather than provide more clarity for decision making, these policy provisions will insert more subjectivity and political decision making into the process.
The provisions that we object to include:

Paragraph e (1). Qualifying decision making by injecting subjective criteria to include “social values (including risk tolerance)” undermines objectivity, and the commission should develop robust limitations on this clause within the policy. For instance, limiting certain types of hunting for species because they poll higher in public surveys should not over-rule objective data that regulated harvest is sustainable and provides maximum public recreation opportunities.

Paragraph e (2). The elevation of “professional experience of Commissioners” into decision making is also inserting a subjective element and giving it more weight than is proper. The current commission has demonstrated a hubris at times that the “experience” of the members in their past lives is of greater value than the professional recommendations of WDFW staff. This clause seems specifically designed to give the commissioners a policy justification for over-ruling the department and strikes us as myopic and political. Professional experiences should give commissioners valuable perspectives, but they do not provide certainty.

Paragraph f (1). This provision would reduce the public scrutiny of the scientific review process. By directing scientific review between the department staff and commissioners in presumably private “small groups” explicitly “prior to public presentation”, this provision seems like an attempt to squelch dissenting opinions from the department so that the commissioner’s preferred “common understanding” be what is presented in public forums. This reduces the sunshine needed for good governance and raises open meeting concerns.

Paragraph f (2). Like the previous paragraph, this provision includes a clause encouraging commissioners to provide outside references for consideration. This paragraph should be clarified that these references should be provided early in the review process so they can be evaluated by department scientists and the public. Just because a study or reference is provided by a commissioner does not make it valid, peer reviewed, or grounded in the characteristics of scientific information.
Paragraph g. We presume that the third-party review that mentions the “Washington Academy of Sciences” actually intends to refer to the Washington State Academy of Sciences. RMEF would suggest that the Wildlife Management

Institute and the Washington Cooperative Fish and Wildlife Unit of the US Geological Survey as other third-party institutions with practical fish and wildlife academic qualifications.

In summary, RMEF is very concerned that the draft policy on the best use of science is taking the wrong approach to address some of the conflicts and tensions that have occurred in commission policy and rulemaking in the past two years. The commission would be well served to recognize the valuable resource they have in the scientists and wildlife managers at WDFW, to approach scientific questions with curiosity and skepticism, and to leave activist agendas out of the management of Washington's fish and wildlife resources.

Sincerely,

Ryan Bronson
Director of Government Affairs
Rocky Mountain Elk Foundation

Rachel Haymon – Independent
5/23/2024

Rachel Haymon's 5/23/24 Comments on Final Review Draft of Best Available Science Policy 3.25.24

Dear Commissioners:

I am a research scientist (in earth and ocean science) and I fully agree on the need for a strong policy to guide the use of Best Available Science (BAS) by WDFW. However, the 3.25.24 BAS policy draft has serious flaws. I urge the Commission not to ratify it, until these flaws are addressed. Language in the 3.25.24 draft is inconsistent with existing laws, and allows circumvention of BAS. Below are my comments and suggested edits of policy language to address these concerns.

General Concerns:
1) There is no definition of "Best Available Science" in this policy. I suggest adding one to the opening paragraph. This definition must align with existing BAS definitions in federal law (for example, in the Endangered Species Act, and in the Rivers and Harbors Act, and also include characteristics of a valid scientific process provided in WAC 365-195-905-5a (peer reviewed; replicable, reliable, valid methodology; logical conclusions and reasonable inferences; quantified; framed in an appropriate context; well-referenced with citations to relevant, credible literature and other information). *The agency must be able to defend in court any management decisions made under its BAS policy. If the BAS policy language is not aligned with existing law, WDFW and the Commission won't be able to do this.*
2) To comply with RCW 77.04.012 ("The Department shall conserve the wildlife and food fish, game fish, and shellfish resources in a manner that does not impair the resource….The Commission may authorize the taking of wildlife, food fish, game fish, and shellfish only at times or places, or in manners or quantities, as in the judgment of the Commission does not impair the supply of these resources."), it must be stated clearly in BAS policy that when there is inadequate scientific information and/or large margins of error, management decisions will be conservative to minimize risks and protect the public trust of fish, wildlife, habitats, and ecosystems. Faced with scientific uncertainty, WDFW must first do no harm.
3) This BAS policy must serve the public trust and follow the law. Language in the 3.25.24 draft can be misused to skirt the intent of the laws, violate the public trust, and subvert BAS. Specific changes (delineated below) are needed to prevent this.
4) It is the Commission, not the Department, that has regulatory authority over management of fish and wildlife (RCW 77.04.013), and has legal oversight and responsibility to ensure that the Department follows state mandates and best available science. The draft policy language inappropriately, and perhaps illegally, undermines the Commission's authority to do so. See below for specific examples.

5) A policy must be followed to be of value. If accountability by the Department and Commission is not specified in the policy, parts will be applied piecemeal to support management agendas rather than BAS (as happened with the 2015 Game Management Plan). The BAS policy needs to include regular and independent assessments of how well WDFW is applying BAS to its decisions.
6) Lowell and Kelly, 2016 (attached) compared how well BAS was applied to provisions of the Endangered Species Act by NOAA vs. U.S. Fish and Wildlife Services. They found that NOAA did better because NOAA has research centers that separate scientists from administrators. This is instructive for WDFW. The new language in the BAS draft policy co-mingles science with administrative and social considerations in ways that will obstruct BAS. WDFW scientists need freedom to communicate with the Commission (and with scientists outside WDFW) without presence or pressure from WDFW policy leaders. The more freedom from policy and administrative constraints that WDFW scientists are allowed, the better WDFW will be at producing and following BAS.

Suggested Edits to 3.25.24 Draft BAS Policy (inserts are upper case; *comments are bold italics*):
The purpose of this policy is to provide direction to the Department and Commission on the development, use of, and access to, best available science and to ensure the integrity of scientific information ~~in addressing decision-critical questions~~ throughout Commission decision making**. Comment:** ***In this paragraph, insert a definition of "best available science" that aligns with federal and state laws/code. "Decision critical questions" is undefined, and is deleted here because integrity of scientific information is always important and not limited to specific questions.***
Policy
a. The Commission is a policy setting body with statutory authorities and responsibilities to manage public trust fish and wildlife resources. ~~and~~ Its management decisions should be informed by ~~salient and credible~~ THE BEST AVAILABLE science. Therefore, it is a priority of the Commission that science provided to the Commission WILL RELIABLY comport~~s~~ with accepted scientific principles and "BEST AVAILABLE SCIENCE" AS DEFINED AND SPECIFIED BY THIS POLICY. ~~is, as much as possible, without bias.~~ ***Comment: BAS policies exist to overcome inevitable bias. This policy needs to define BAS and direct WDFW and the Commission to reliably produce BAS and apply it to decision making.***
b. ~~The Commission will identify policy objectives and related decision-critical information needed from the Department to inform decision making.~~ THE COMMISSION HAS AUTHORITY TO FREELY AND DIRECTLY SEEK AND RECEIVE INFORMATION FROM SCIENTISTS (STAFF AND/OR EXTERNAL SUBJECT MATTER EXPERTS), WITHOUT INVOLVEMENT OF OTHER PARTIES. THE COMMISSION ALSO HAS AUTHORITY TO INDEPENDENTLY DEVELOP AND SELECT KEY QUESTIONS FOR DECISION MAKING. AS NEEDED, ~~T~~the Department ~~will work with the~~ and Commission ~~to~~ WILL WORK TOGETHER TO co-create key questions for decision making. ~~in an iterative fashion. while recognizing the time and financial resources that agency scientists may need to provide that information, and the fact that some information may be unknown or incomplete. The Commission should weigh the need for greater scientific certainty against the costs (in time, money, and management outcome [e.g., wildlife population declines, extinction, etc.]) of reducing uncertainty.~~ The Department will ~~inform and develop~~ ANALYZE AND PRESENT riskS ~~analyses that inform~~ OF management options ~~tradeoffs~~ at the request of the Commission, including the riskS of "no action***". Comment: By law, the Dept. serves and is accountable to the Commission, not the other way around. Do not cede the Commission's legislative authority and responsibility to exercise oversight of the Dept. Clarify the Commission's right to request and receive needed scientific information from internal and external sources, and to speak directly with staff scientists without managers and policy staff in the room. In the draft, section b mingles science with administration in a manner that can bias the scientific information, and related questions and options, that the Commission considers. See Lowell and Kelly, 2016 (attached).***
c. The Department will work through the Science Divisions to create and maintain scientific integrity and ensure ~~the best possible scientific support~~ THAT BEST AVAILABLE SCIENCE AS DEFINED AND SPECIFIED IN THIS POLICY IS PROVIDED for Commission decision making. ***Comment: "best available" already means "best possible" in any practical sense; "best possible" is undefined.***
d. The Commission shall use Best Available Science~~, including Social Science~~, in decision making. See Attachment 1. ***Comment: Best Available Science elements apply to all branches of science. This policy is specifying a standard for science no matter which branch of science is applicable to management decisions.***
e. The Commission and the Department will CLEARLY EXPLAIN AND SHOW ~~be explicit in~~ how ~~natural and social~~ science information is used in conjunction with applicable law and WDFW's legal mandate for decision-making and recommendations~~. It is understood that while c~~ Consideration of scientific findings ~~must~~ SHALL form the basis for Commission decisions~~, social values, (including risk tolerance) and~~ IN CONJUNCTION WITH the professional experience of Commissioners. ~~are integral to the decision-making process~~***. Comment: This is a BAS policy, not a complete list of all***

the factors weighed into Commission decisions. Social values and risk tolerance per se do not belong in a BAS policy, and placing them here only undercuts the objectivity of the science brought to the Commission by the Department. The essential importance and transparency of best-quality science in making policy and management decisions are the main points to emphasize in Section e.

f. Commissioners ~~should~~ MAY work through the Committee process, AND/or with ~~the~~ GROUPS OF appropriate DEPARTMENT science and management staff ~~from Divisions/Regions~~, EXTERNAL EXPERTS, AND OTHERS WITH RELEVANT SCIENTIFIC INFORMATION~~, (in small groups).~~ prior to public presentation to ensure a common understanding of the presentation's major scientific RESULTS, ~~outcomes~~, conclusions, ~~and areas of remaining disagreement or~~ DATA QUALITY AND LIMITATIONS, ESTIMATES OF uncertainty AND RISKS, AND DEGREE OF SCIENTIFIC CONSENSUS. Commissioners AND THE PUBLIC may provide additional scientific references or information for consideration in the development of ~~science products~~ BEST AVAILABLE SCIENCE by the Department. ***Comment: It would be better to engage external scientists and the public sooner in the process. Issues and additional resources (data, studies) would be recognized and incorporated earlier, and there would be more overall public trust in the agency's use of BAS, and possibly less public polarization regarding science-guided decisions. Scientific consensus is an important element of BAS that overcomes inherent deficiencies of individual studies, and tamps down public polarization over "my" science vs "your" science.***

g. The Commission and the Department will ~~seek to avoid bias in their interpretation of scientific studies by~~ consider~~ing~~ all relevant sources of scientific information used by the agency in developing recommendations. In areas of contested interpretation or application of science, ~~or~~ conflicting results, OR LACK OF CONSENSUS of important scientific studies, ~~the information provided by Department staff shall be considered acceptable and sufficient. However,~~ the Commission may ~~request~~ CONSIDER ADDITIONAL EXTERNAL PEER-REVIEWED SCIENTIFIC PUBLICATIONS, OR SEEK third-party reviewS OF KEY SCIENTIFIC DISAGREEMENTS (vetted with explicit criteria and a transparent process), or REQUEST REVIEWS BY INDEPENDENT PANELS OF WELL-QUALIFIED SCIENTISTS (FOR EXAMPLE, the Washington Academy of Sciences) ~~to review key scientific disagreements~~. The Commission MAY ~~will~~ provide specific questions about the contested science or uncertainty. ~~that is decision critical. (refer to f)~~

~~h. The Commission or the Department may request the use of decision support tools TO CHOOSE e.g. Structured Decision Making, as a process for considering tradeoffs for achieving specific goals and objectives for resource management. The Commission and Department may request an adaptive management approach to address risk to resources or opportunity.~~ ***Comment: Delete section h altogether. It has nothing to do with BAS. The Commission (not the Department) can write a separate policy, if need be, about how it will go about making decisions and guiding Department management. Commissioners are stewards of the public trust, in accord with the law. BAS is essential to good stewardship decisions, and what this BAS policy must do is ensure that human stuff – administrative matters, values, tolerances, decision-making process, etc—does not obstruct clear-eyed BAS needed to inform the Commission's good stewardship. There is a real natural world out there, and the Commission needs undiluted BAS to have any chance of making the right decisions for all that lives. Please do not lose sight of this fundamental obligation. This policy needs to put a firewall between BAS production/application and all the strictly human stuff that undermines or supplants it.***

I suggest substituting a new Section h to specify how the Commission and Department will measure their adherence to this BAS policy, through regular internal and independent external assessments. These assessments can guide future modifications of this BAS policy to make it more effective.

Lastly, I suggest a new section (i) which says that when BAS is sparse or has large uncertainty, the Commission will exercise caution and make conservative management decisions to minimize risks to fish, wildlife, habitats, and ecosystems.

Butch Smith – Ilwaco Charter Association

5/23/2024

From: Butch Smith
Sent: Thursday, May 23, 2024 7:59 PM
To: Commission (DFW) ; Susewind, Kelly (DFW)
Cc: Cunningham, Kelly J (DFW) ; Windrope, Amy (DFW)
Subject: Fwd: Best available science Agenda Item

External Email

Dear Commissioners

My name is Butch Smith. On behalf of the Ilwaco Charter Association I am writing to you today about the agenda item on using best available science. We do not support this! First let me tell a little about myself. I am on several major panels and commissions, sitting member of the Pacific Fisheries Management Council which sets the seasons for the entire West coast including all fish except crab, I am on the Southern panel of the US/Canadian treaty International use of our salmon, 30 years president of the Ilwaco Charter Assoc, Chair of the Port of Ilwaco port commission elected, President of National Association of Charter Operators, and been doing the salmon process for almost 30 years. I have had the pleasure of seeing many things on the science side of things and work with many great science staffs including WDFW, Tribal, NOAA, northwest science center, NMFS, and all the Science staff from the West coast and Canada. All working for the conservation of salmon and to rebuild the runs of salmon where they can be rebuilt!! I can tell with a 100% confidence the WDFW science team is some of the most respected group of individuals in the country, plus we have our co-mangers equally as gifted and respected in the world of science!! We are so lucky in this to be second to none in this Arena. Last but not least is NOAA fishery's who is the referee and the over seer of the science to make sure everybody's on the same page and follow all the plans set forward. My question is with all the PHd's ,Master degree's and years of practical boots on the ground science and first hand knowledge what is the commissions thinking in this? You already have the best available science at your finger tips!! Unfortunately I have seen some commissioners try to discredit all the fine science people because they simply don't like what staff is saying and because the science doesn't match their narrative on what they think the world should look like and not what the science is telling them. It really is disingenuous when I have witnessed at some of the commission meetings by a few of the commissioners treatment of the science sometimes it is even heart breaking knowing how hard and dedicated staff work to give you the complete best available science.

Why we don't support this proposal. There's many groups out there that hire scientists to support their narrative on how their group or membership see the world. When you pay a scientist to work for you he or she will find the science for what that group wants. I have seen it many times Taking science and cherry picking the stuff that is what their group is trying to do. If your working for a hatchery group you'll want to hire a pro hatchery person if you hire an anti hatchery person then you find that kind of a scientist. Same thing with hunting and non hunting groups same thing applies!! We call that out here Science for hire or Science to to the highest bidder it's just plain wrong and not science at all. Agency Scientists are not concerned about fundraisers, going to fund raising dinners & telling the donors what they want to hear to get them to open there pocket book and write those checks to pay those salaries. The agency staffs get paid to do whats right for fish and wildlife and to follow ESA rules and the conservation needs of all fish and wildlife and they have internal reviews all the time with peers and talk to a wide network of scientists from other agencies like tribal scientists, NOAA, PFMC scientists and even other departments up and down the west coast. Two things I think should be done. You need to believe in your WDFW staff because they are doing the right thing they are at the top of their game and the commissioners who haven't been through the salmon setting process from February to April and see more science than you have ever seen and how hard all parties that I have mentioned in my testimony and how they all collaborate to get to the best out come for the fish!!! For example I have attached some new science and also a link that if I could get 5 to 6 votes saying this is the best science, then under what you are proposing as best available Science that might make some of you to think twice on this issue!!! Please Vote No !!

Thank you

Butch Smith President/

Jen Syrowitz – Conservation Northwest
5/24/2024

May 24, 2024

Washington Fish & Wildlife Commission
600 Capital Way N.
Olympia, WA 98501

Re: Public Comment - Best Available Science Policy

To the Honorable Members of the Fish and Wildlife Commission,

Since 1989, Conservation Northwest has championed conservation initiatives grounded in rigorous science and collaborative efforts. As the Department of Fish and Wildlife contends with unprecedented environmental challenges such as climate change, habitat fragmentation, and biodiversity loss, leveraging all available knowledge systems is imperative. To ensure the integrity and efficacy of the Best Available Science Policy, we urge the Commission to include Indigenous Science (1) in future drafts and policy implementation.

Indigenous communities have stewarded their lands with profound understanding and care since time immemorial. Their place-based ecological knowledge, rooted in cultural traditions and continuous observation, offers unique and practical insights into sustainable resource management. The braiding of Indigenous Science with western scientific approaches can significantly enhance our understanding and management of natural resources, leading to more holistic and durable policy outcomes. The integration of this knowledge has been encouraged and implemented at various levels in the United States Government, including a White House Memorandum on Indigenous Traditional Ecological Knowledge and Federal Decision Making (https://www.whitehouse.gov/wp-content/uploads/2021/11/111521-OSTP-CEQ-ITEK-Memo.pdf).

Conservation Northwest respectfully requests that the Fish and Wildlife Commission take the necessary steps to include Indigenous Science and its practitioners in the Best Available Science policy. We believe that proactively incorporating Indigenous Science will improve decision-making, conservation outcomes, collaboration with resource management partners, and the longevity of the policy itself.

Thank you for the opportunity to provide feedback on this policy development. We look forward to a draft that recognizes the value of Indigenous knowledge and are available for further discussions to facilitate this integration.

Sincerely,

Jen Syrowitz, M.Env.
Sr. Program Manager

(1) There are numerous terms used to describe Indigenous Science including: Traditional knowledge, Traditional ecological knowledge, Indigenous knowledge, Aboriginal knowledge, Native science, naturalized knowledge systems, and more.

The following comments were provided as PDFs and are appended below. See Table of Contents (Page 1) or below for starting page numbers for each comment.

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Doug Hooks – Washington Forest Protection Association
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TO: Barbara Baker, Chair WA Fish and Wildlife Commission

FROM: Tina Whitman, Science Director

SUBJECT: Fish and Wildlife Commission Conservation Policy

DATE: May 20, 2024

Friends of the San Juans strongly supports the Washington State Fish and Wildlife Commission's proposed Best Available Science Policy, and we appreciate your work on this critically important topic.

Since 1979, Friends of the San Juans has worked to protect and restore the San Juan Islands and the Salish Sea for people and nature. Our community of members and the residents of San Juan County understand the strong connection between the health of our regional environment and our local economies and support bold action to protect species and habitats into the future. Increased investment in biodiversity protection and recovery can create jobs, enhance recreational opportunity, and improve resiliency to climate impacts.

The dual crises of a changing climate and biodiversity loss demand proactive, strategic action underlain by the principles of science and conservation. The Department of Fish and Wildlife has an enormous responsibility to the people, species, and habitats of Washington State. A focus on Best Available Science will be essential to meeting the very real challenges facing the fish, shellfish and wildlife that underlay the culture and economies of our communities.

We appreciate the proposed policy's consistency with WAC 365-195-905, the Best Available Science guidance already employed by jurisdictions across the state, and support the proposed policy as drafted. In addition, alternative and risk analyses, third party and/or Washington Academy of Sciences review, as well as adaptive management, are each significant and necessary components of this proposed best available science policy and should be retained in the final policy language.

Thank you for your consideration and your work to preserve, protect, and perpetuate fish, wildlife, and ecosystems in Washington.

Comments to the Washington Fish and Wildlife Commission regarding

The Final Review Draft on the Use of Best Available Science

Nick Gayeski, Ph.D.

Wild Fish Conservancy

May 21, 2024

"We do not inherit the Earth from our ancestors, we borrow it from our children." (old Indian proverb, quoted in Wood 2014.

I appreciate the opportunity to comment on the Review Draft Policy. As I stated in comments on the Review Draft that I submitted to members of the Fish and Wildlife Commission ("Commission") on April 17 2024, I believe this policy should NOT be adopted at this time. At the risk of some redundancy, I first repeat the comments of April 17. I then add comments regarding several of the elements of the draft policy stated in the Review Draft.

Comments provided on April 17, 2024.

I concur with the concerns expressed by The Conservation Angler (TCA) in its submission to the Commission of April 16 2024. The draft policy should not be adopted for a number of reasons. In general, it is too vague and provides no clear description, much less a definition, of what the critical term "best available science" (BAS) means. In addition to the issues raised in the Comments by TCA, I note some additional, related issues that would need to be adequately addressed in any credible statement of policy by the Commission regarding BAS.

The critical context in which BAS arises in matters in which the Commission has the authority and obligation to direct the Department concerns decisions directly and indirectly related to the Department's (and the Commission's) public trust responsibility to manage the state's fish and wildlife resources in such a way as to preserve them in healthy, robust condition for future generations of the citizenry. This conservation obligation is paramount among the Department and the Commission's purposes and objectives.

The general context in which issues of BAS arise for the Department and Commission involve decision making. Decision-making in turn generally involves choice among two or more alternative actions, and the choice that is ultimately made among a suite of alternatives must reflect (and be based in) a policy that either governs the decision as a matter of state or federal law or resides in policy which the Commission has the discretion and authority to develop and implement. In the latter case, which seems to apply to the Commission's use of BAS in the final review draft, relevant science will generally be required to inform and even guide the development of policy itself. That is to say, Commission policy in decisions involving the Department and Commission's conservation responsibilities requires the involvement of policy-relevant science.

Thus, BAS arises at a more basic level than the draft implies. Before turning to a characterization of BAS, it is worth considering what is required of a "good" decision.

In natural resource management and conservation contexts, decisions will almost always involve varying levels of uncertainty, including uncertainty about the quality and quantity of available relevant data, the processes affecting the resource at issue, including the ecosystem of which the resource is a component and/or which provides the environmental context affecting the dynamics of the resource at issue, the statistical procedures to be employed to analyze the available data, and the outcomes of the statistical analyses themselves. This requires that any policy governing the context of such a decision embody a clear statement of the level of risk to the resource that is socially acceptable.

In the context of the formal discipline of decision theory, this requires that the decision rule include a statement of the critical probability for an estimated quantity exceeding a stipulated threshold. Such a threshold, is in turn justified in terms of a basic standard stating a quantitative error tolerance for the attainment of a desired quantitative condition. (For example, a maximum census pHOS level for a particular ESA-listed Chinook population determined as a matter of policy-relevant science to preserve the genetic integrity and population resilience of the listed population.)

The inclusion of a threshold probability of attainment (in the pHOS example, not exceeding the maximum census pHOS level) reflects the fact that in most cases the relevant quantity or condition of interest will be estimated with uncertainty. Consequently, the uncertainty (ideally

expressed as a probability of the critical threshold being attained) is logically a component of the decision-making process. The value of the probability of attainment required – as a matter of policy – expresses the level of risk that the crafters of the policy are willing to accept for the failure to attain the critical threshold (e.g., exceedance of the maximum census pHOS level). This also establishes the burden of proof that must be overcome if a decision is to be made that will or may result in the critical threshold not be attained (or being exceeded, as the case may be).

The bottom line is that the determination of Commission policies and associated actions with reference to "best available science" involves complex considerations regarding decision-making that far exceed the over-simplified one-page list that appears to constitute the Final Review Draft "policy" on BAS.

It is, thus, worth considering what can be said about "best available science". It is relevant to consider how "best available" occurs in the Endangered Species and Marine Mammal Protections Acts (ESA, MMPA, respectively). The ESA requires that decisions make use of the *best available commercial and scientific data*. The MMPA requires that decisions be based on the *best scientific evidence available* (my emphasis). Note, that in both cases there is no statement about a "best" scientific theory or procedure. The statements only concern *data* and *evidence.*

A reasonable characterization of BAS, might therefore be: using the best statistical techniques to analyze all the available data, weighting each data source according to its quality. This again emphasizes that the development of a Commission policy concerning the use of BAS will require some interaction between the Commission members and staff, the Department's science staff, and, likely, scientists and policy experts outside of the agency.

This raises a final issue: protecting the independence of the Department's own science staff. In order to develop a scientifically credible policy on BAS, the Commission must assure that Departmental science staff be free from within-agency interference with or misrepresentation and distortion of the conclusions of its own scientists. Further, agency scientists must be free to provide their scientific analyses and concerns to the Commission.

Clearly, there is considerable work facing the Commission if they are to credibly address the several issues surrounding the crafting of a policy concerning the use of best available science within the Department.

Comments on elements of the policy stated in the Review Draft.

Policy b reads as follows:

"The Commission will identify policy objectives and related decision-critical information needed from the Department to inform decision making. The Department will work with the Commission to co-create key questions for decision making in an iterative fashion while recognizing the time and financial resources that agency scientists may need to provide that information, and the fact that some information may be unknown or incomplete. The Commission should weigh the need for greater scientific certainty against the costs (in time, money, and management outcome [e.g., wildlife population declines, extinction, etc.]) of reducing uncertainty. The Department will inform and develop risk analyses that inform tradeoffs at the request of the Commission, including the risk of no action".

The Policy must define the (scientifically credible) methodology by which "scientific uncertainty" is to be weighed against the costs of reducing uncertainty. Mere verbal statement of the issue is insufficient for informing the public and the Commission itself of how such weighing is to be accomplished. This issue is related directly to the burden of proof regarding the natural resource likely to be affected by the issue for which there is policy-relevant uncertainty to be accounted for. Absent a clear policy statement regarding where the burden of proof lies (as expressed in clear statement of the critical probability for attainment or non-attainment of a critical numeric threshold), it is not possible to objectively determine the proper weighting of a) making a decision under the current level of uncertainty and b) investing in the acquisition of more (and/or better) data to reduce the uncertainty before making a decision. This is a highly challenging technical scientific matter and requires some level of expertise with the discipline of Statistical Decision Theory. Classic references are Berger (1985), and Keeney and Raifa (1991. The Commission and Department will likely require outside expertise to assist with developing a credible policy for determining the method for weighing such trade-offs.

To emphasize the fundamental point, uncertainty in the data and analyses of the data that are required for a decision based on a Commission policy is a regular feature of natural resource

management decision contexts. Uncertainty is an inherent component of the risk to the resource that may be posed by a decision (the greater the uncertainty, the greater the risk). It is, therefore, essential that the uncertainty by expressed as a probability distribution of possible outcomes of a decision, and not a simple point estimate such as the mean. Finally, the critical threshold level of probability chosen (as a matter of policy!) for the outcome of a decision (a chosen action based on the policy) attaining a desired outcome and/or avoiding crossing a critical threat threshold should reflect the value that society (a represented by the Commission as a trustee of the public) places on attaining a desired outcome and/or avoiding crossing a critical threat threshold.

Policy c reads as follows:

"The Department will work through the Science Divisions to create and maintain scientific integrity and ensure the best possible scientific support for Commission decision making".

This statement, like most of the Draft Policy, is unacceptable vague. At a minimum it requires a clear definition or characterization of "scientific integrity". This, too, likely requires some outside expert assistance. Of critical importance for the public and the Commission, is the need to protect the independence of the Department's own science staff and their freedom from censorship, intimidation, or other discouragement from management. Especially important is the creation of a working environment in which Department scientists are free and encouraged to express disagreement with Department policy which scientists believe are lacking in scientific credibility and/or are contrary to Department policy or to the conservation obligations of the Department. A Department atmosphere that discourages expression of scientifically credible concerns can prevent the Commission and the public from considering important information and perspectives on controversial matters of policy. In addition, such a hostile Department atmosphere can cause department scientists to self-censor and thereby keep their concerns to themselves (for fear of criticism, retribution and/or their continued employment and prospects for advancement within the Department). This scientific reticence further deprives the Commission and the public from the consideration of policy-relevant scientific concerns. For an important example of this in management of ESA-listed salmon populations, see Franks and Lackey 2015.

Policy d reads as follows:

"The Commission shall use Best Available Science, including Social Science, in decision making. See Attachment 1".

Surprisingly, nowhere in the Review Draft is there a definition or characterization of the key term "best available science". As it occurs in natural resource management contexts, such as endangered species management, BAS refers to data, and not to the techniques, methods, or models used to analyze data and to express the degree of uncertainty in the outcome of such data analyses. In Attachment 1 ("Research"), the Draft Policy repeats this failure to carefully define or characterize a critical term or phrase, in its reference to "other appropriate methodology based in the scientific method." This wrongly implies or assumes that there is a single and clearly understood "scientific method" that unambiguously guides the acquisition of data and its proper analysis. This is simply untrue of the practice of science, especially ecological science.

This reveals a huge lacuna in the Review Draft, which the Commission should not avoid correcting: the failure to provide a credible protocol for evaluating methods of data acquisition and analysis, including the preferred form (or forms) of expressing the degree of uncertainty in scientifically credible data acquisition and analyses methodologies. This is the heart of developing a scientifically credible and robust policy of BAS.

Adequately charactering how credible, acceptable scientific methods of data acquisition and analysis will be determined is a significant and critical component of a scientifically credible policy regarding BAS. This, too, will require some input from expert sources outside of the Department. This is also closely related to the issue of enhancing and protecting the scientific integrity of the Department and its science staff.

Policy e reads as follows:

The Commission and the Department will be explicit in how natural and social science information is used in conjunction with applicable law and WDFW's legal mandate for decision-making and recommendations. It is understood that while consideration of scientific findings

must form the basis for Commission decisions, social values, (including risk tolerance) and the professional experience of Commissioners are integral to the decision-making process.

The issue of "social values" and "risk tolerance" are indeed critically important to credible natural resource management policy (see several of my comments above). But it is equally critical that values and risk tolerance be characterized in as quantitatively clear a manner as scientifically possible. There should be a minimum of room for subjectivity to a degree that allows for different decisions and levels of acceptable risk to be made for relevantly similar cases. This is closely related to the issues of the identification of the burden of proof, the proper characterization of the precautionary approach and its application in the policy, and the employment of statistical decision theory noted above. The Commission should carefully consider how to incorporate the Seven Generation Principle in specifying the burden of proof and the application of the precautionary approach (see references).

Policy g reads as follows:

"The Commission and the Department will seek to avoid bias in their interpretation of scientific studies by considering all relevant sources of scientific information used by the agency in developing recommendations. In areas of contested interpretation or application of science, or conflicting results of important scientific studies, the information provided by Department staff shall be considered acceptable and sufficient. However, the Commission may request third-party review (vetted with explicit criteria and a transparent process) or the Washington Academy of Sciences to review key scientific disagreements. The Commission will provide specific questions about the contested science or uncertainty that is decision critical. (refer to f)."

This general boilerplate language is inadequate to the issue of bias. Bias must first be recognized before it can be "avoided" or corrected. Details will need to be provided that describe the primary kinds of bias likely to be encountered in the evaluation of the scientific information considered by Department science staff in developing recommendations. Again, the issue of the location of the burden of proof is relevant, and perhaps even central.

Not all scientific information relevant to a Departmental or Commission decision will be unambiguous and thus point to a single decision alternative. When legitimate disagreement among relevant department scientists occurs, the appropriate decision should – as a matter of

Commission policy – reflect where the policy generally places the burden of proof. This again points to the importance of creating an atmosphere within the department that enables scientists to express concerns and disagreements about the direction of agency policy or the analysis of data required for decision making with which a scientists may disagree.

Accordingly, the statement that '[i]n areas of contested interpretation or application of science, or conflicting results of important scientific studies, *the information provided by Department staff shall be considered acceptable and sufficient"* (emphasis added) is unacceptable. The Commission should be wary of and in general should avoid giving uncritical deference to department scientists when matter of scientific controversy arises. While it may in general be reasonable to give information provided by Department staff an initial presumption of reasonableness, the Commission should always reserve the discretion to consider other perspectives provided (and encouraged to be provided) by other Department scientists and by scientists outside of the Department and concerned members of the public. It is particularly important that the Commission be sure that no Department manager is able to censor, modify or suppress elements of analyses or reports by Department scientists and present them to the Commission as the consensus of relevant Department scientists.

Policy h reads as follows:

"The Commission or the Department may request the use of decision support tools e.g. Structured Decision Making, as a process for considering tradeoffs for achieving specific goals and objectives for resource management. The Commission and Department may request an adaptive management approach to address risk to resources or opportunity".

Structured Decision Making is not the best "decision-making" technique for dealing with trade-offs in resource management decisions. It is no substitute for the more rigorous approach of traditional statistical decision theory, whereby a decision occurs in the context of a policy stating a probabilistic threshold level for attainment of a desired outcome or the avoidance of a negative one. Its use, if any, should be clearly subordinated to the more objective approach of statistical decision theory.

"Adaptive management" (AM) is another vague term, undefined in the Review Draft. Among other issues, AM should be characterized or defined in the context of the decision-theoretic approach described above, wherein uncertainty is characterized quantitatively as a probability distribution of outcomes and a desired critical threshold is specified. AM is then to be clearly related to the uncertainty revealed by the analysis of current data and management options, and the level of reduction in the uncertainty expected by an "adaptive management" action be clearly specified. The expected outcome of an AM action should always, as a matter of Commission or Department policy, be to reduce the uncertainty concerning the probability of crossing an undesirable threshold or attaining a desired one.

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Wikipedia: Seven generation sustainability:
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May 21st, 2024

Washington Fish and Wildlife Commission
Post Office Box 43200
Olympia, WA 98504-3200

Re: FW Commission Policy on the Use of Best Available Science

Dear Fish and Wildlife Commission Members:

Washington Forest Protection Association (WFPA) is a forestry trade association representing large and small forest landowners and managers of more than four million acres of productive working forests in Washington, including timberland located in the coastal and inland regions of the state. Our members support rural and urban communities through the sustainable growth and harvest of timber and other forest products for U. S. and international markets. For more information about WFPA, please visit our website at www.wfpa.org. WFPA respectfully submits the following comments on the Fish and Wildlife Commission Policy on the Use of Best Available Science.

I am writing to express WFPA's support for the Final Review Draft of the Fish and Wildlife Commission Policy on the Use of Best Available Science. The commitment to informed decision-making grounded in credible and unbiased science is not only commendable but essential for public trust in the responsible management of our fish and wildlife resources.

Two commonalities plague most all natural resource decisions; scientific uncertainty and a limitation of resources to reduce that uncertainty. WFPA strongly supports the development of risk analyses to inform tradeoffs not only in face of scientific uncertainty but also to include how land managers and businesses are likely to alter their decisions because of those made by the Commission. Failure to do so can often lead to unintended consequences from even the most well intended policies.

The policy's emphasis on the integrity of scientific information and the iterative process of co-creating key questions for decision-making is a forward-thinking approach that recognizes the dynamic nature of science and its application to policy. By incorporating both natural and social sciences, the policy ensures a holistic understanding of the ecosystems under management, provided that political risk tolerances do not compromise objectives or outweigh the science.

Moreover, the policy's directive to use Best Available Science, including a transparent process for addressing scientific disagreements, sets a standard for accountability and rigor in environmental governance. We strongly support the use of third-party review with Subject Matter Experts (SME) when there may be areas of contested interpretation or conflicting results of important scientific studies. The inclusion of structured decision-making tools and adaptive management approaches provides a robust framework for addressing the complexities and uncertainties inherent in managing natural resources. As such, WFPA suggests that the discretionary language 'may' for decision support tools (structured decision making) and adaptive management found in section h. be changed to 'shall' in order to ensure that objectives are met, tradeoffs are evaluated, and consequences are recognized. We also suggest that the

Commission directly reference how BAS is developed in its revisions to the Conservation Policy it is currently considering.

As an association whose members deeply value our state's fish and wildlife and the role of science in safeguarding it, we are encouraged by the Commission's dedication to these principles. We urge the Commission to adopt this policy with the suggested changes above and continue to lead by example in the stewardship of our fish and wildlife resources.

Thank you for considering our comments.
Sincerely,

Doug Hooks
Director of Forest and Environmental Programs

Dear Commissioners,

The Puget Sound Anglers State Board has gone through and read your draft policy. We are trying to understand how this will achieve any substantial gains for natural resources as there is never a boiler plate type situation in science. Science's technology is ever evolving. Overall, trying to quantify "best available science" is not applicable because every group has their own science/scientists that will disagree with each other. This wording alone says that there are many sciences out there and you are trying to pick the best one? This leads to the question of which one is right, which ones are wrong, and who do you select? There is no such thing as one size fits all in science. There are always issues and factors that change every outcome. Every situation is always different and needs to be dealt with that way. That's the purpose of having a commission is to work out these issues on an individual basis.

The WDFW commission is a body of citizens with varying backgrounds. We understand the reason to try to make a program that would simplify and speed up processes. Science is not that cut and dried. We are learning new science daily as well as dispelling old science. Example, a certain river's fish are depleted and a different fish is transplanted into that river to recover it. What if that fish has a different run timing and returns when there is little to no water for it to get up the river? This would be considered a failure but would the truth be known as to why it really was? Wrong conclusions could come from that. This is just one example of how many factors can play into a solution or nonsolution. That is why we have NOAA, PFMC, WDFW staff, and tribal biologists/scientists to oversee fisheries and other natural resource issues to have the world's best scientists decide. They have the power to shut down any issues that your "best available science" policy produces.

Tribes have to be involved in all natural resource management as they are comanagers of the resource. There was no mention of tribes in this draft document. After we worked for 8 years to build the Co-Manager plan, this policy, and the conservation policy, both seem to circumvent them to cut the legs out from under this plan that was voted on and passed by the commission.

In your draft wording says that the commission will have the final say on questions and who to pick, such as Washington Academy of Science, to do the final work? Washington Academy of Science overall does not favor hatchery production, as proven when they were tasked in finding positive aspects of hatcheries, when we were removing HSRG from the WDFW Commission Salmon Policy C-3619. WSAS went out on their own, tried to exclude us from being in the room at HSRG removal meeting #2. They had cherry picked their scientists that do not favor hatcheries. The tribes (and us) had to push their way into this group to have pro-hatchery scientists at the table. Without hatcheries our salmon are doomed as we no longer have enough sufficient habitat for them.

The ultimate decision makers on fisheries are the tribes, NMFS, WDFW, and PFMC. By making a policy such as this and the conservation policy, you are circumventing the process and comanagers to open the state up for more lawsuits. When you make policies and cannot or do not

follow them, you just laid out the groundwork for more lawsuits against the state. The purpose of the commission is to have a panel of bodies to vet out issues and come up with the best solution. “Science for hire” has not, nor will it ever work. Facts and data are the only acceptable way to get the best solutions. That’s why we try to select the best commissioners.

Please do not pass this “Best Available Science Policy” as who gets their science picked is who wins. Every natural resource issue must be thoroughly vetted out with every factor.

Thank you,

Ron Garner
President,
Puget Sound Anglers State Board

cc:
Kelly Susewind
Kelly Cunningham

Via email — 22 May 2024

TO: Washington Fish & Wildlife Commission and Department of Fish & Wildlife (WDFW)

FROM: Adrian Treves, PhD, Carnivore Coexistence Lab, University of Wisconsin-Madison

SUBJECT: Scientific comment on FW Commission Policy on the Use of Best Available Science

I have followed the checkered history of this policy for over a year now and have had several discussions with commissioners and Washington state experts. One of my areas of expertise is research integrity and open science. Relatedly, I have published over a dozen peer-reviewed articles on the science-policy interface and scientific integrity.

Thanks for your kind attention.

My comments focus on the following:
(A) I explain why the science informing the policy exposes a desire by WDFW to control the commissioners' access to information and reveals an unscientific bias on the part of WDFW.
(B) I summarize our published critiques of how WDFW staff handled scientific evidence and bias for 2 past wildlife questions relating to cougars and wolves.
(C) I raise questions about possible legal jeopardy for the commission and agency if the proposed policy were adopted.

(A) I explain why the science informing the policy exposes a desire by WDFW to control the commissioners' access to information and reveals an unscientific bias on the part of WDFW.

1. **WDFW seems to want to control commissioners access to information.** The policy places too much discretion in the hands of the agency to omit studies it deems inappropriate, unimportant, or inconvenient, rather than presenting ALL the AVAILABLE science to the Commission to make its own judgment. That patronizes the Commission. The policy seems to attempt to curtail the Commission's access to third-party science and the commission's ability to compare agency science to third-party science. In particular, one sentence sets a double standard, whereby third-party science must be "vetted and reviewed by a transparent process" but the agency's science need not be so vetted.
2. **Similarly, the policy aspires to a questionable goal.** "The Commission and the Department will seek to avoid bias in their interpretation of scientific studies by considering ***all relevant sources of scientific information used by the agency*** in developing recommendations". Boldface italics added here because that phrase places all authority and discretion in the hands of the agency for deciding what to put in front of the commission. The quoted phrase also highlights that the agency does not understand scientific bias or wishes to mislead the commission about the nature of bias as I explain next.
3. **Two scientific understandings of bias.** The scientific community currently views bias in research in two ways that are complementary. The first is bias associated with competing interests including worldviews. The second meaning of bias applies to measurement. I address both below. Neither meaning of bias is clearly addressed by the policy.
4. **Firstly, bias as can arise from competing interests that lead to a slanted view of the entire scientific endeavor.** The commission and agency do not have completely overlapping worldviews, which will influence what sources of uncertainty they consider worrisome and the results they find persuasive. Put simply, one can only work to minimize bias by making it transparent to those considering all of the evidence (the commission in this case).

5. **Remedies for inescapable human bias.** (a) biases arise from human viewpoints, therefore all people have a bias; (b) scientists trained specifically in research integrity (not all scientists do) who practice comprehensive thoroughgoing transparency may be able to partially overcome their worldview biases; (c) energetic, explicit methods for transparency are needed to expose bias and reduce its distorting effects, (d) the best approach to overcoming bias for decision-making and action is a diverse group of qualified independent scientists debating and challenging each others' methods and data before describing consensus and minority opinions; and (e) decisions about bias should never be based on who did the science, from what institution, or how they communicated their science but only on their methods in their broadest sense. The above five remedies (a-e) are hallmarks of open science but appear nowhere in the proposed policy.
6. **WDFW's record is imperfect.** For an example of WDFW stumbling on this issue, see an episode in which Deputy director A. Windrope and Commissioner L. Smith expose misunderstandings about bias during a WDFW commission meeting in 2023, quoted here (http://faculty.nelson.wisc.edu/treves/pubs/Treves%20editorial_pre-print.pdf). Now consider competing interests that distract an agency or a commission from unbiased science. Any agency or commissioner has competing interests associated with clients, constituents, career advancement, and political pressures acting on them. For an agency's scientific staff who might otherwise make decisions independently, these pressures can distort the science they find persuasive and promote. Allowing a few staff of a hierarchical organization such as WDFW to exercise discretion to decide which studies are important or credible will necessarily introduce bias and subjectivity because of the above inescapable competing interests. The commission would be ill-served by such filtering.
7. S**econdly, bias in measurement arises from systematic, non-random errors resulting from unreliable methods**. Unreliable methods may surface as subtle shortcomings in accuracy, precision, reproducibility or sensitivity to changing conditions. Reliability of measurements or findings MUST NEVER be judged by one's preference for the researchers, host institutions, or one's preference for the conclusions. The reliability of science can only be judged by qualified experts engaged in independent debate who are scrutinizing methods and attempting transparent replication and falsification of findings. Moreover, the commission should seek replication to validate single findings by searching the third-party literature — especially those findings cherished by WDFW or the commission itself. Since 1890, Geologist T.C. Chamberlin warned us of clinging to cherished hypotheses.
8. **The proposed policy lacks a statement about best available science being built on the best available methods.** Guidance to the agency and commission on how to judge the relative robustness or strength of inference in studies that come to different conclusions would be important in a science policy. These are lacking in the draft policy. Including guidance to the commissioners about robust research designs is important in such a policy because the Commission and agency should quickly grasp which studies have earned more credibility because they are designed more robustly.
9. **The policy should state which designs are more robust and therefore more credible than others.** Robustness should be judged by the criteria used by the international scientific community for judging strength of inference and reproducibility, e.g., randomized, controlled experiments are superior to correlations which are superior to simple, systematic observations which are superior to anecdotes. There are many additional finer gradations of robustness and strength of inference, but the preceding ranked order of study design illustrates the point that not all studies are equal. That conclusion is another hallmark of open science.
10. **The policy does not address uncertainty in science clearly.** Current understanding is that our methods of observation will never reduce uncertainty to zero. We must clearly consider uncertainty when deliberating on our actions. Scientific communication that fails to adequately describe uncertainty is by definition inaccurate or misleading. Communicating uncertainty is particularly important for the commission to hear because decisions are necessarily weighed down by value judgments about the acceptable level of uncertainty.

Value judgments about uncertainty include such considerations as historical tradition, personal preferences, precaution, and feasibility. As a remedy to agency attempts to impose their personal or agency values, the draft policy should require all assertions in WDFW communications to be accompanied by clear statements and estimates of uncertainty. That is yet another hallmark of open science.

11. **Not all peer-reviewed journals are equal.** The proposed policy should take into account the transparency of journals and the quality of the journals when considering evidence before making decisions. The policy completely ignores the importance of anonymous peer review by accredited scientific journals. Therefore, the policy also ignores the fact that some journals are stronger than others, and that scrutiny of journals is an evolving process that has already established some journals as more credible than others. The policy should acknowledge that the agency can follow and adapt to progress in science, by discarding outdated or low-quality studies and preferring higher-quality studies to lower-quality ones. Progress in science is a goal of the open science movement.
12. **Closing the loop in steps 1-11:** All public values must be the province of the Commission as the appointed representatives of the administration, which is the democratically elected representatives of the public. The many public values at play are not to be used by WDFW as a prerogative to filter scientific information before the commission hears the evidence (steps 1-6 above). Seen in this way, the WDFW should present all evidence with interpretation of what is the best based on scientific criteria only (steps 7-11 above). If they fail in this as WDFW has failed in the past (section B below), then the commission must look for all the evidence. Once aware of all of the evidence and appreciating which is the best and setting aside the rest, then and only then can the commission weigh values of the public before making its decision, not the other way around.
13. **No wildlife agency anywhere in the world is expert in open science**. My concerns above about WDFW controlling commission access to information and privileging its own preferred studies compounds with my concerns above about WDFW misunderstanding bias in science. Research integrity is a field in and of itself as seen in the growing, thriving topics of bioethics and research integrity. The Commission and WDFW will have to hire in that field if they wish to some day claim expertise in research integrity. Several of my published articles make clear the errors by WDFW in handling of cougar and wolf science in the past - see section B below.
14. **Start over with a policy led by scientists on the commission and informed by hallmarks of open science.** Instead of adopting the currently proposed policy, I recommend the Commission follow pre-existing guidance documents from the broader community of experts in scientific transparency and research integrity, e.g., the National Academies of Sciences, Engineering, and Medicine in 2017 on Fostering Research Integrity (https://uwmadison.box.com/s/3amp7s84fnhdyzfcygaw1fusx8t1nmyo) and the 2021 scientific integrity standards imposed on federal scientists by the Biden Administration (https://www.whitehouse.gov/wp-content/uploads/2022/01/01-22-Protecting_the_Integrity_of_Government_Science.pdf). Then a primer on reliable science and false discovery can be found in work by dozens of statisticians published b Benjamin et al. (208) https://www.nature.com/articles/s41562-017-0189-z and Christie et al. (2020) https://doi.org/10.1038/s41467-020-20142-y | www.nature.com/naturecommunications. While I understand the Washington Academy of Sciences may have useful expertise for the commission (and the proposed policy waves at that), it may not be feasible to commission studies of specific questions in every case. Therefore, the policy should provide guidance on where commissioners can look to reduce uncertainty and find second opinions, a wise strategy in any situation.

(B) I summarize our published critiques of how WDFW staff handled scientific evidence and bias for 2 past wildlife questions relating to cougars and wolves.

We scrutinized three publications involving WDFW authors: Petracca et al. (2023b and 2024) on wolves and Kertson et al. (2022) on human-cougar interactions. Make no mistake, these publications bear a strong imprint of WDFW bias and meddling in the scientific process, as our critiques meticulously document. In these WDFW-led or co-authored documents, we found deep-seated misunderstandings of bias and how to fairly evaluate scientific literature when considering policy decisions.

Critique of Kertson et al. (2022) on human-cougar interactions:
Treves A, Elbroch L, Koontz F, Papouchis CM. How should scientific review and critique support policy? PLoS One. 2022;Comment on Laundré & Papouchis. https://journals.plos.org/plosone/article/comment?id=10.1371/annotation/5bed4c0f-9676-4b24-a598-ea3bb5bbfd80

Critique of Petracca et al. (2023b and 2024) On wolves by Santiago-Ávila, Treves, vonHoldt (2024) at http://faculty.nelson.wisc.edu/treves/archive_BAS/concerns%20about%20Petracca%20et%20al.%20for%20WDFW_final.pdf and Treves A. Pre-publication review of "forecasting dynamics of a recolonizing wolf population under different management strategies" by Petracca et al. . Biorxiv. 2023; https://www.biorxiv.org/content/10.1101/2023.03.23.534018v1#comments.

Finally, I have published four one-page guest editorials on scientific objectivity, best available science, the role of academia in public science, and competing interests from 2019-2024 here https://faculty.nelson.wisc.edu/treves/ including one in particular that addressed WDFW explicitly on the topic of competing interests (http://faculty.nelson.wisc.edu/treves/pubs/Treves%20editorial_pre-print.pdf). It quotes the WDFW and Commission debating scientific bias and puts that debate in context of other agencies and scientific communities.

(C) I raise questions about possible legal jeopardy for the commission and WDFW if the proposed policy were adopted.

Does the proposed policy deviate from other Washington state rules or statutes on best available science or rules on what is evidence? Might the proposed policy be arbitrary and capricious? I ask these questions in light of existing rules advocated by the agency for cities and counties (https://apps.leg.wa.gov/wac/default.aspx?cite=365-195&full=true#365-195-925). It would seem hypocritical if tWDFW held cities and counties to a higher standard of science than it holds itself, so I quote from rule 365-195-920:

> "Criteria for addressing inadequate scientific information. (1) Where there is an absence of valid scientific information or incomplete scientific information … counties and cities should use the following approach: (a) A "**precautionary or a no risk approach," in which development and land use activities are strictly limited until the uncertainty is sufficiently resolved**; and …Management, policy, and regulatory actions are **treated as experiments that are purposefully monitored and evaluated to determine whether they are effective and, if not, how they should be improved to increase their effectiveness**. An adaptive management program is **a formal and deliberate scientific approach to taking action and obtaining information in the face of uncertainty**. … [including]…(ii) Change course based on the results and interpretation of new information that resolves uncertainties…" (boldface added)

The phrases in bold about precaution and experiments point the way to a policy for WDFW itself. The policy would preclude risky actions in the face of scientific uncertainty, preclude a biased sorting of evidence prior to the commission seeing all evidence, and treats management actions as experiments, i.e., controlled, preferably random-assignment and subject to all of the protections against bias that good experiments include. My concerns are congruent with the precautionary note in WDFW's own rules for counties and cities above. A basic rule of the

precautionary approach is to take the action which will do the least harm if your starting information is wrong.

Also consider how the state might fare in federal court? Might federal standards set a basement or minimum below which the WDFW and its commission cannot fall? I call attention to the U.S. Supreme Court decision Daubert 1993 on the admissibility of evidence in court; also please consider the ongoing challenges to the 1984 Chevron doctrine which typically defers to agency science when statutes are ambiguous. The Chevron doctrine has been challenged in 2024 and many legal scholars predict the Supreme Court will strike down Chevron deference, which might pit agency science against third-party science. I would counsel that any 'best available science' policy considered by the Washington commissioners be robust to legal challenges, which suggests careful handling of the discretionary parts of the policy, so they are neither judged to be arbitrary nor imposing viewpoint discrimination (state-imposed silencing of certain voices in preference for other voices).

Thanks for allowing me to submit a comment and for your kind attention. Please do not hesitate to contact me for further discussion,

Adrian Treves, PhD
Carnivore Coexistence Lab
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Comments and Recommendations

Washington Fish and Wildlife Commission's Best Available Science Policy

The Conservation Angler greatly appreciates the initiative to develop a policy regarding "Best available Science" – however this draft is premature, unclear, and not ready for adoption by the Commission. The policy narrative and attachment must explicitly define what comprises "best available science"

For example, federal law defines "best available science" in the Rivers and Harbors Act – one of the nation's oldest laws and was updated as part of the Clean Water Act – in these terms:

(27) the term "best available science" means science that—

(A) maximizes the quality, objectivity, and integrity of information, including statistical information;
(B) uses peer-reviewed and publicly available data; and
(C) clearly documents and communicates risks and uncertainties in the scientific basis for such projects;

Unites States Code – Chapter 33, Sec. 1321 (a)(27)

In Washington State, the Growth Management Act also describes "best available science" in these terms:

"What is best available science? The GMA does not define best available science (BAS) …The regulation describes what constitutes best available science and how local governments should identify, evaluate and include it in their critical-area policies and regulations. BAS can be described as research conducted by qualified individuals using documented methodologies, the information reviewed by qualified scientific experts, and the criticisms addressed by the proponents. *WA Dept. of Ecology Pub. #01-06-023*

The Commission and the Department need to define the term or process that will result in both defining what it is and how it should be used or applied. The "best available science" commonly refers to peer reviewed scientific research that is published in recognized scientific outlets. Peer-reviewed processes ensures that uncertainties are expressed and enable researchers to test or repeat the research inquiry.

The term "best available science" is also fraught with grave risks of misapplication. For example, the scientific research on the harmful or adverse effects of hatcheries on wild fish is unequivocal and is consistently evident in the scientific literature. Operating fish hatcheries using a "best available science" standard is different than and bypasses the broader issue of their negative impacts and focuses on hatchery practices relative to rearing, feeding and so on - completely ignoring the underlying ecological issues.

Specific Criticisms: Policy subsection (g)

This section is our highest concern. First, it basically gives the Department *cart blanche* regarding the literature they use to evaluate a question and/or make a decision regarding a policy. Second, the Department essentially cannot be challenged in regard to the science, unless or perhaps when a commissioner(s) requests a third-party review (that meets an undefined vetting process) or seeks review from the WA Academy of Sciences, or allows the Commission to provide the scientific research or evidence to Department staff according to the procedure noted in Policy subsection (f).

This is an unacceptable policy. While the Department has a level of scientific expertise, they have a demonstrated history of selectively using science that supports their decisions in accord with administrative rules governing fishing and hatcheries. There are many well-qualified scientists in the Science Division, but some have made unilateral calls influenced by politics and law. As a result, based

on this reality – a small number of administrators (who have a vested interest in policy) are ultimately responsible for the scientific information that is presented to the Commission to inform their decisions.

The draft language in section G and F should be revised, deleting "acceptable and sufficient." There should be a different third party review process, not based on a Commission decision, that answers questions with high conservation value. While the Academy of Sciences may be the good choice, it is not the only choice. Regardless, there should be a clear process to challenge the Department's use of science in situations where disagreements have large repercussions for state conservation and management.

Procedural Comment**:**

It is worth reviewing the existing statutory language and intent of the Commission's authority, found at Rev. Code of Washington (RCW) 77.04.013 which reads, in part:

> **Findings and intent.**
>
> "…It is the intent of the legislature that, beginning July 1, 1996, the commission assume regulatory authority for food fish and shellfish in addition to its existing authority for game fish and wildlife. It is also the intent of the legislature to provide to the commission the authority to review and approve department agreements, …to adopt rules for the department, and to select commission staff and the director of the department.
>
> The legislature finds that all fish, shellfish, and wildlife species should be managed under a single comprehensive set of goals, policies, and objectives, and that the decision-making authority should rest with the fish and wildlife commission. The commission acts in an open and deliberative process that encourages public involvement and increases public confidence in department decision making. [*emphasis added*]

It is a common understanding that the Washington Fish and Wildlife Commission provides oversight to the Department to ensure the Department is meeting its mandates and using appropriate (or "best") scientific knowledge to develop and implement policies.

The draft policy defining "best available science" appears to be a binding agreement in which the Commission is fully melding themselves into the Department's process, rather than retaining a distinct management and oversight role. The language describing the relationship between the Commission and Department creates a problem because the language is generally vague, but then quite specific in terms of deferring to the Department. As an interested science and advocacy organization with specific expertise in these matters, the policy parameters in this draft create an unworkable process that places the burden of "tradeoffs and risks of uncertainty" on Washington's wild fish and animals.

We provide specific recommended edits in the draft policy in the following pages.

TCA urges the FWC to delay consideration of adoption of the Best Available Science Policy at this time.

Line by Line Review, Edits and Comments

Final Review Draft: FW Commission Policy on the Use of Best Available Science 3.25.24

The purpose of this policy is to provide direction to the Department and Commission on the development, use of, and access to, best available science and to ensure the integrity of scientific information in addressing decision-critical questions throughout Department and Commission decision making.

Policy

a. The Commission is a policy setting body with statutory authorities and responsibilities to manage public trust fish and wildlife resources. ~~and i~~Its management decisions should be informed by the best available ~~salient and credible~~ science. Therefore, it is a priority of the Commission that science provided to the Commission comports with accepted scientific principles and can be relied upon as the "best available science." ~~is, as much as possible, without bias.~~

b. The Commission will identify policy objectives and related decision-critical information needed from the Department to inform decision making. The Department will work with the Commission to co-create key questions for decision making in an iterative fashion while recognizing the time and financial resources that agency scientists may need to provide that information, and the fact that some information may be unknown or incomplete. The Commission should weigh the need for greater scientific certainty against the costs (in time, money, and management outcome [e.g., wildlife population declines, extinction, etc.]) of reducing uncertainty. The Department will create~~inform~~ and develop risk analyses that inform tradeoffs at the request of the Commission, including the risk of no action.

c. The Department will work through the Science Divisions to create and maintain scientific integrity and ensure the best possible scientific support for Commission decision making.

d. The Commission shall use Best Available Science~~, including Social Science~~, in decision making. See Attachment 1.

e. The Commission and the Department will clearly explain and demonstrate ~~be explicit~~ in how natural ~~and social~~ science information is used in conjunction with applicable law and WDFW's legal mandate for decision-making and recommendations. It is understood that while consideration of scientific findings shall ~~must~~ form the basis for Commission decisions, ~~social values, (including risk tolerance) and~~ the professional experience of Commissioners are integral to the decision-making process.

Commented [DM1]: Term "decision-critical" should be defined

Commented [DM2]: The Policy must define "best available science" before delineating a policy for it.

Commented [DM3]: This sentence creates an entirely new task and responsibility for the FW Commission.

Commented [DM4]: The lack of information or certainty with existing scientific knowledge is the reason why the precautionary principle exists and why it must be part of the policy and the decision-making process.

Commented [DM5]: This sentence seems to create a mathematical equation with no idea how to value the variables. It is a given that "the best available science" is always changing, never complete and rarely presents all of the answers to decision-makers and managers.

Commented [DM6]: This term or process ("tradeoffs") should be defined in the policy.

Commented [DM7]: This phrase is undefined and indeterminant.

Commented [DM8]: Again, need to define this phrase or term, specifically.

Commented [DM9]: "Social" as used in this policy, is an adjective defined as "relating to society or its organization." It has no basis for inclusion in the definition of "best available science."

Commented [DM10]: Attachment 1 provides a strong series of characteristics or elements of "best available science" but still does not provide a definition.

Commented [DM11]: While the Commission's professional experience is important in their ability to understand the scientific literature, as defined in Attachment 1, it cannot be used substitute for BAS unless "only used where we have no other type of specific science that speaks to the question."

f. Commissioners may~~should~~ work through the Committee process or with the appropriate science and management staff from Divisions/Regions ~~(in small groups)~~ prior to public presentation to ensure a common understanding of the presentation's major scientific outcomes, conclusions and areas of remaining disagreement or uncertainty. Commissioners may provide additional scientific references or information for consideration in the development of science products by the Department.

g. The ~~Commission and the~~ Department will ~~seek to avoid bias in their interpretation of scientific studies by~~ consider~~ing~~ all relevant sources of scientific information ~~used by the agency~~ in developing recommendations. In areas of contested interpretation or application of science, or conflicting results of important scientific studies, ~~the information provided by Department staff shall be considered acceptable and sufficient. However,~~ the Commission may ~~request~~ consider additional peer-reviewed scientific literature outside of Department sources, or request third-party review (vetted with explicit criteria and a transparent process) by~~or~~ the Washington Academy of Sciences or other independent credentialed scientific panels to review key scientific disagreements. The Commission may~~will~~ provide specific questions about the contested science or uncertainty that is decision critical. (refer to f)

h. The Commission or the Department may request the use of decision support tools e.g. Structured Decision Making, as a process for considering tradeoffs for achieving specific goals and objectives for resource management. The Commission and Department may request an adaptive management approach to address risk to resources or opportunity.

Commented [DM12]: Would it not make sense to ensure that the Commission, Dept. AND the public work together to establish a common understanding on policy management issues? It seems as though the broader involvement with the public early on may reduce the amount of disagreement or polarization that occurs when a policy or management action comes to the pubic already fully baked - especially since the public rarely is afforded the opportunity to find common ground with the FWC or the DFW.

Commented [DM13]: The term "science products" is awkward - science is a process and when we are lucky (or good) we end up with findings that have a high confidence level of being true or accurate. This same comment could be applied to the term in the prior sentence " scientific outcomes."

Commented [DM14]: We all have our bias.

Does anyone have a meter that detects bias? Is there a reporting requirement for people to announce their bias? Answer = No.

In the scientific world, peer review is meant to get at possible bias - and if scientists in a specific field are reading scientific literature, there is a process for them to submit comments - either during peer review or even post-publication - and an opportunity for the authors to respond.

Commented [DM15]: This reference to sec. f is appropriate if (f) is revised as suggested.

Commented [DM16]: SDM in the natural resource management space is a nice neat phrase allowing decision-making bodies to avoid making hard decisions by allowing certain actions that transfer the risk to the resource being managed. In the end, the FWC and DFW are responsible to their primary statutory mandate which is conservation - so the risk and "tradeoffs" should always attach to the users, not the state's natural resources which are a public trust and should be managed not only for current users but future citizens - the anglers and hunters and bird watchers in the womb.

Attachment 1: Sources and characteristics of scientific information to describe Best Available Science

SOURCES OF SCIENTIFIC INFORMATION adapted from (WAC 365-195-905)	**CHARACTERISTICS OF SCIENTIFIC INFORMATION** – The sources of scientific information should include the following (adapted from WAC 365-195-905 and Charnley et al (2017))
Research Research data collected and analyzed as part of a controlled experiment (or other appropriate methodology based in the scientific method) to test a specific hypothesis.	• Clear statement of objectives, research purpose, and/or questions • Thorough review of literature, ensuring inclusion of recent literature, and other relevant information • A conceptual model or theoretical framework for characterizing system relationships, testing hypotheses, and making predictions • Data gathered are objective, value-free • Data and information limitations, sampling biases, scientific uncertainties, known or potential rates of error are disclosed • Sound logic and rigorous statistical quantitative, qualitative, or alternative methods used for analyzing and interpreting data and making inferences from samples • Conclusions are well supported by the data • Findings communicated in a manner that is accessible
Monitoring Monitoring data collected periodically over time to determine a resource trend or evaluate a management program.	
Inventory Inventory data collected from an entire population or population segment (e.g., individuals in a plant or animal species) or an entire ecosystem or ecosystem segment (e.g., the species in a particular wetland).	
Survey Survey data collected from a statistical sample from a population or ecosystem.	
Modeling Mathematical or symbolic simulation or representation of a natural system. Models generally are used to understand and explain occurrences, and may predict outcomes, that cannot be directly observed.	
Assessment Inspection and evaluation of site-specific information by a qualified scientific expert. An assessment may or may not involve collection of new data.	
Synthesis A comprehensive review and explanation of pertinent literature and other relevant existing knowledge by a qualified scientific expert.	
Expert Opinion Statement of a qualified scientific expert based on their best professional judgement and experience in the pertinent discipline. This is only used where we have no other type of specific science that speaks to the question.	

Formatted Table

MOUNTAIN LION FOUNDATION
Saving America's Lion
Our mission is to ensure America's lion survives and flourishes in the wild.

May 23, 2024

Fish and Wildlife Commission
Washington Department of Fish and Wildlife
Natural Resources Building
1111 Washington St. SE
Olympia, WA 98501

Dear Commissioners, Director Susewind, and Deputy Director Windrope:

The draft Washington Fish and Wildlife Commission Policy on the Use of Best Available Science is an important effort, and the Mountain Lion Foundation thanks the commissioners and staff who have invested intense time and effort into this work. As with any document that has gone through many revisions and rounds of editing by diverse stakeholders, the current draft has diverged from its original intentions, and I am fearful that its current language could inadvertently result in current suboptimal practices being carved in stone as official policy, rather than using this as an opportunity to take stock of the current practice and set the highest expectations.

The Mountain Lion Foundation takes great interest in this process, because we are dedicated to ensuring science-based management of mountain lions in particular, and of wildlife in general. We work with scientists at state and federal agencies as well as scientists at nonprofits and in academia, and our staff includes trained biologists, including myself. In addition to that organizational interest, I will add a personal note. During my graduate studies in ecology and evolutionary biology, I took coursework in philosophy of biology. That training proved enormously helpful during my work at a nonprofit focused on protecting the teaching of evolution and climate change, and at another nonprofit dedicated to increasing (and improving the quality of) discussion of science policy by candidates for public office. Those both gave me the privilege and the opportunity to consult with philosophers of science and scholars of science policy on exactly the questions driving this policy. In my work on STEM education, I helped in the development of curriculum on the nature of science for the award-winning *Understanding Science* project funded by the NSF and Howard Hughes Medical Institute. I have worked with policymakers and scientists to help both sides better understand how science policy is made, and how both sides can best support the other at that interface. I offer the comments below not in the specific interests of the Mountain Lion Foundation alone, but on behalf of that broader mission which has stretched throughout my career.

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This letter concludes with specific suggestions for edits to the current draft policy. To keep those suggestions concrete, I will open with a somewhat more discursive account laying out the framework that shapes my suggested revisions.

A framework to guide the discussion

The Commission's Best Available Science policy should first and foremost ensure that the scientific foundation for WDFW's policy is as solid as possible. In my STEM education work, the checklist I worked from asked students to evaluate scientific claims against the attached checklist (from https://undsci.berkeley.edu/understanding-science-101/a-scientific-approach-to-life-a-science-toolkit/). The policy you adopt should allow the commission to readily assess each of those key questions, and should in all cases avoid closing off or obscuring the answers to those questions:

- Where does the information come from?
- Are the views of the scientific community accurately portrayed?
- Is the scientific community's confidence in the ideas accurately portrayed?
- Is a controversy misrepresented or blown out of proportion?
- Where can I get more information?
- How strong is the evidence?

In answering the first question, it is crucial to bear in mind a key insight that has informed scientific practice since at least the early days of the Enlightenment: the recognition that all people and institutions have biases, and that the best way to get at the truth is not to rely on a single source of authority, but to test empirical claims against evidence in a replicable way. The modern institution of independent peer review for publications grew out of that insight. A Best Available Science policy should not declare *a priori* that certain sources are sufficient, nor operate on a premise that some scientists or scientific sources are inherently unworthy of attention because of a perceived bias. The litmus test is whether a claim is supported by a consilience of evidence, or whether a claim is falsified by some body of evidence.

Addressing Bias

The policy repeatedly refers to a goal of removing bias from the science process, and this is an admirable and important goal. In assessing bias, its crucial to distinguish between two forms of bias, because scientific methods address those forms of bias in different ways. Bias can be introduced as *biased data* or as *biased interpretation*. Biased data (or data collection methods) can be addressed through the use of more data, adding better datasets, accounting for sources of biases in the analysis, or by setting aside irredeemably flawed data. Biases in data collection methods or in evaluation of a dataset can be caught and removed or corrected through the independent peer review process. Furthermore, it is important to emphasize that biased data is data which has a known skew. In ecology and wildlife science, especially science produced in order to inform short-term policy needs, it is common for data to have significant and

known sources of *noise* (uncertainty or potential error) which do not produce a *bias*. Scientific methods in general, and policymaking in particular, should avoid using biased data, but can and must include data with high uncertainty, and account for random noise by other means.

Biased interpretation is not something independent peer review necessarily can, *or even should*, remove. Scientists have recognized the inevitability of such bias since the 16th century scientist Francis Bacon first tried to codify a scientific method that would help correct errors introduced by "the false appearances that are imposed upon us by the general nature of the mind," what he termed "idols of the mind." The reason scientific papers are structured with discrete sections for a description of research Methods, an objective presentation of Results, and a more personal Discussion of interpretations is to separate out those elements that are objective from those that admittedly subjective and open to interpretive dispute. A paper which reports accurate data and offers questionable interpretations of that data can still be valuable and the data, if not the conclusions, should be incorporated into policymaking. A paper which has biased data cannot produce meaningful interpretations unless those sources of bias can be and are appropriately corrected, and the data should be excluded from the policy process unless such corrections are possible.

The upshot is that the Best Available Science policy should aim to ensure that the data which informs the policy process should be unbiased, but that it would be contrary to scientific practice to exclude sources of information only because the authors or institutions which produced the data are seen as biased. Scientific methods and analyses exist precisely to allow us to derive objective conclusions from data produced by humans with all of our inevitable foibles, and excluding sources of reliable data can itself introduce bias into an analysis.

Consensus and scientific debate

The *Understanding Science* checklist also emphasizes the need to understand whether the views presented reflect the overall views of the scientific community at large. Institutions, including the scientific teams at state wildlife agencies, may have their own internal consensus that differs from a larger scientific community. While that small team's expertise and experience warrants respect and should weigh in favor of their advice, it is also reasonable for policymakers to expect them to accurately and fully represent the views of the broader community. This allows policymakers to ask informed questions and consider whether to balance their policy choices in some way between those two views, or how to offset adverse policy implications of different competing hypotheses. The question in the *Understanding Science* checklist about whether a controversy is blown out of proportion is the flip side of this question.

In evaluating these issues, it is also crucial that policymakers recognize that often the presentation of competing scientific views can result in a misperception of uncertainty or tentativeness. As *Understanding Science* explains: "All scientific ideas — even the most widely-accepted and best-supported, like the germ theory of disease or basic atomic physics — are inherently provisional, meaning that science is always willing to revise these ideas if warranted by new evidence. However, that tentativeness doesn't mean that scientific ideas are untrustworthy." Or to quote Michael Soulé, founder of the discipline of conservation biology: "In crisis disciplines [like conservation biology], one must act before knowing all the facts; crisis disciplines are thus a mixture of science and art, and their pursuit

requires intuition as well as information. A conservation biologist may have to make decisions or recommendations about design and management before they are comfortable with the analysis's theoretical and empirical bases. Tolerating uncertainty is often necessary." (https://pdfs.semanticscholar.org/66a9/bb52254c9787d9effa88722c5f9968fbfe00.pdf)

As such, the guidance from WDFW scientists to the Commission should not aim to provide a unified statement purporting to be a monolithic view of Science on the matter. Instead it should aim to fully and accurately reflect the inevitable uncertainty among practicing scientists in a discipline, and even areas of dissent or disagreement among scientists within the department. That uncertainty will come both from the inherent limitations of existing data, but also from genuine differences of opinion about how to interpret the available data and how to weigh various prior beliefs. WDFW should take inspiration from efforts like the IPCC to formalize how uncertainty is presented, which has created entire taxonomies of uncertainty to categorize uncertainty in the data and separately to describe the range of views across experts in the field (e.g. https://www.ipcc.ch/site/assets/uploads/2021/02/Risk-guidance-FINAL_15Feb2021.pdf).

The bedrock necessity of independent peer review in science

In all of these, and especially in the *Understanding Science* checklist's question about where to get more information, independent peer review stands out as the essential element that allows science to advance. A policy aimed at providing policymakers with the best available science should prioritize independent peer review, not treat it as something to be avoided, or a sign of disrespect to the researchers. Peer review, conducted independently and often through some form of anonymity, sometimes through formal channels and other times through informal conversations over a draft document, is fundamental to the scientific enterprise and has been since the 18th century, and the Best Available Science policy should encourage policymakers and agency scientists to solicit such outside review whenever possible, and on whatever timelime will best support decisions in the limited time that is often available. Restricting peer review to formal review with pre-defined evaluation criteria and an official motion by a full vote of the commission will inevitably delay and limit that review and weaken the quality of science guidance that the commission will receive. Instead, the policy should encourage commissioners and scientists to invite colleagues to review and offer feedback on the scientific and science policy products of the department, and on the department's scientific research plans and priorities. Independent peer review is essential for catching errors in data, in interpretation, and in how research results are described, but also can offer alternative interpretations of data or enhance conclusions by introducing further supporting evidence from different fields. Department policies should ensure that staff scientists have the freedom to submit their work to colleagues for independent peer review through formal and informal routes, and that commissioners can individually or collectively request independent peer review through formal and informal pathways.

One key benefit of independent peer review is that it can avert the risk of groupthink. Groupthink is a well-documented phenomenon in large organizations in which prioritizing internal consensus and pressure to conform to that consensus can mean decisions are made without fully considering all options and consequences. Scholar Irving Janis described it as a product of internal group dynamics like "illusion of invulnerability"; a "belief in the inherent morality of the group"; "collective rationalization"; "out-

group stereotypes"; "self-censorship"; the "illusion of unanimity"; "direct pressure on dissenters" and "self-appointed mindguards." Researchers in the field have shown that this process even affects highly-scientific organizations like NASA, and played a key role in the Challenger disaster (e.g. https://onlinelibrary.wiley.com/doi/abs/10.1002/bdm.3960020304). Inviting independent external peer review can be a valuable way to disrupt groupthink and correct course before a catastrophic outcome. Because groupthink operates on a "us vs. them" mindset, it is especially important that external reviewers not be selected by that same in-group. Janis and other scholars also recommend providing sanctioned pathways for internal dissent (ombudsmen, dissent channels, designation of a rotating role of "critical evaluator" or "devil's advocate" on projects).

Independent peer review is also enhanced by ensuring that the department's data is publicly available, except where prohibited by law or by the need to protect sensitive species. This is a relatively modern norm in science. Increasingly, scientific journals are refusing to publish research where data cannot be published alongside the analysis and conclusions. Ensuring that the department's data is open by default will enhance credibility and allow outside experts to build on the department's work in their own analyses. Similarly. department research should be published where possible on preprint servers to invite input from outside experts as early in the process as possible.

Independent peer review is also an invaluable tool at the beginning of the research process. Federal research grants (including through NSF, NIH, CDC, and USDA) are often allocated based on independent peer review and ranking of proposals. Peer review of the department's long-term research plans would be a useful addition to this policy, as it would help identify ways to enhance research designs and to prioritize research areas of the greatest urgency for the policy process. Such review need not be onerous for the reviewers or the Department. It would furthermore encourage agency researchers to pre-specify hypotheses to be tested (as discussed in the next section). Pre-registering hypotheses and research designs can provide many benefits, including ensuring that studies will have sample sizes sufficient to detect effects, that experimental and statistical controls are sufficient to distinguish between hypotheses, establishing clear and sufficient data collection plans, and simplifying the ultimate peer review of research results. The Commission should consider establishing such a process through this policy or as part of the routine budget process.

The Department showed the value of informal peer review pathways through the process of updating cougar hunting guidelines in response to the recent petition. In addition to relying on and synthesizing results from existing peer-reviewed publications, the department conducted informal meetings with outside scientists as they updated their analyses to peer review their findings and methods and ensure the Commission received the best available science. This form of peer review is far less cumbersome than the formal review that a manuscript goes through before publication, or the sort of formal peer review described in the current draft policy as the exclusive form of peer review the Commission could request. Nonetheless, staff described that review positively and seemed to feel it represented a useful input to their work. While the Best Available Science policy might not *mandate* such informal review, it should at least not foreclose such review as one of the options the Department and Commission could use to ensure the quality of science presented to the Commission. That system could be improved by making the selection of reviewers less dependent on the researchers themselves, for instance by letting the department's

suggested reviewers themselves invite additional reviewers, broadening and deepening the feedback and further enhancing the quality of the department's scientific guidance.

Independent peer review, it should be emphasized, must be truly independent. When the reviewers are selected by the authors of the research, they can introduce bias into the review process and weaken the fundamental value of the review. In creating systems of peer review for the Department's scientific work, the emphasis should be on ensuring that the review is done by a diverse and independent body of researchers (see discussion of reviewer ethics by the Committee on Publication Ethics: https://publicationethics.org/sites/default/files/ethical-guidelines-peer-reviewers-cope.pdf). Reviews conducted only by other state fish and wildlife agencies, or only by people with existing research collaborations with the Department, will lack the independence that this process requires. A 2004 federal policy document on peer review of policy-relevant science discusses the complexities of ensuring independence (https://obamawhitehouse.archives.gov/sites/default/files/omb/assets/omb/memoranda/fy2005/m05-03.pdf, pp. 17-19). The National Academies advise that peer review be conducted by panels with a balance of perspectives, and emphasize that even reviewers with strong opinions should be invited so long as they can remain objective (https://www.nationalacademies.org/documents/embed/link/LF2255DA3DD1C41C0A42D3BEF0989ACAECE3053A6A9B/file/D4D336B1CB9047B19928EA8785ED2E43C913B841539A?noSaveAs=1):

> 2. Perspective. Consideration should be given to whether there is an appropriate range of perspectives on the issues to be addressed by the committee. Differing and new perspectives on an issue, shaped by individual knowledge and experience, can be vital to achieving an informed, comprehensive, and authoritative understanding and analysis of a problem and potential solutions.
>
> 3. Objectivity. Consideration should be given to whether the committee membership can be objective and open-minded in addressing the issues before it. For example, an individual may have strongly held views or biases, or may be closely associated with a group that has taken a strong position, on an issue before the committee. This does not preclude appointment to the committee as long as the individual remains open to new learning that could change his/her views. However, it may be necessary to include on the committee other members with contrasting views to maintain balance. Appointment to the committee is not appropriate if an individual is not open to any new learning or discussion that could change his/her views on an issue being addressed by the committee.

To simplify the process of soliciting independent, external peer review, the Commission should consider establishing a standing advisory group who, like a journal's editorial team, might be occasionally tasked with soliciting external peer review and maintaining a diverse list of potential reviewers in agencies, academia, and the nonprofit sector with a range of perspectives on issues that frequently emerge in

agency research. Such a body might simplify the peer review process for staff and the Commission, and provide valuable transparency for the public about how that review is conducted, and by whom.

Advocate for formal hypothesis testing

Beyond *Understanding Science*'s checklist designed for nonscientists, there are some criteria that scientists apply in evaluating scientific claims that ought to be reflected in the Commission's Best Available Science policy. Most crucial, scientists evaluate research by asking exactly what hypothesis a study is testing, and aim to exclude from further consideration any hypotheses that have been consistently falsified. They recognize that one cannot prove claims true, but that some claims can be considered false thanks to rigorous testing. By this process, scientists narrow in on a consensus about the truth, at least bracketing what the truth might be by repeated testing.

Department scientists should be encouraged to structure their studies to formally test hypotheses, and to make clear to policymakers when specific hypotheses (and thus predictions about the effects of policy based on those hypotheses) have been falsified, and which remain viable based on the data. Where new studies are conducted to inform policymakers, they should be designed in ways that will allow such formal testing, including the use of appropriate controls (including, where more feasible, statistical controls or appropriate comparisons to past baselines). Department scientists should also be encouraged to use policy changes as a chance to test specific hypotheses and to recommend changes to policy when results do not bear out predictions. Decisions are often made in the face of uncertainty, and policy proposal should be presented with associated data collection plans that will allow policymakers to evaluate the success of a policy, and to adapt the policy in light of new data.

As an example, the 2022 policy increasing cougar quotas in the Blue Mountains was suggested as a response to boost elk populations according to a specific hypothesis about why the population had declined, and Department staff proposed that policy change while acknowledging other alternative hypotheses to explain the decline. The Commission adopted the proposed policy, but did not mandate data collection to compare these competing hypotheses, nor did the Commission require data collection or policy revision in the event that predation did not prove to be the driver of elk populations. In the event, data from subsequent seasons showed that hardly any hunters made use of the increased quotas, but changes in environmental conditions led to significant increases in calf survival. This result might reasonably be said to falsify the hypothesis behind the policy, yet no staff made no immediate effort to change the policy. The Commission should expect the results of this experiment to inform future policy in the Blue Mountains specifically, and policy for ungulate/carnivore management more generally. Only through such feedback from policy experiments to policy change can the Commission and Department ensure that policy is rooted in the best available science.

In this vein, the department and commission should review the list of hallmarks of quality science in wildlife agencies identified by Artelle et al (2018) (https://www.science.org/doi/10.1126/sciadv.aao0167) and set a goal of ensuring that Washington state's wildlife management regime displays these hallmarks. Those hallmarks largely match the bullet points from the *Understanding Science* checklist: measurable objectives, evidence, transparency, and independent review. These (or similar) hallmarks of quality

science should be emphasized throughout the commission's Best Available Science policy, and should represent a measurable criterion for the success of this policy at the level of the commission.

Leverage existing definitions and protections for scientific integrity

Lastly, the commission should draw inspiration from efforts made by many federal agencies to enshrine scientific integrity into law since 2009. In January 2009, President Obama pledged in his inaugural address to "restore science to its rightful place." To implement that pledge, President Obama and the White House Office of Science and Technology Policy issued executive orders requiring all agencies to develop scientific integrity policies, policies that have been further updated by subsequent presidents. These policies ensure not only that the scientific products of federal agencies are untainted by political interference, but that scientists can freely publish their results, and discuss their findings and conclusions from those findings with policymakers, outside scientists, outside advocacy groups, and the press, without retaliation or interference.

The most recent White House Office of Science and Technology Policy Scientific Integrity Policy (https://www.whitehouse.gov/wp-content/uploads/2023/06/OSTP-SCIENTIFIC-INTEGRITY-POLICY.pdf) lists key requirements, including many elements that ought to be included (*mutatis mutandis*) in the WDFW policy, and which are discussed at greater length above:

> *Peer Review*. Research that informs OSTP decisions should be subject to peer review when appropriate.
>
> *Public Access*. Barring restrictions, scientific or technological findings that inform policy decisions should be available to the public.
>
> *Investigation*. OSTP will address instances in OSTP activities in which the integrity of scientific and technological processes and information may be compromised.
>
> *Science-informed Decisions*. OSTP will adopt procedures that ensure the integrity of scientific and technological processes and information used to inform decision-making.
>
> *Dissent*. Science benefits from dissent within the scientific community to sharpen ideas and thinking. Scientists' ability to freely voice the legitimate disagreement that improves science should not be constrained. …
>
> *Science at the Policy Table*. For science to inform policy and management decisions, it needs to be understood and actively considered during decision-making. This requires having scientists participate actively in policy-making.
>
> *Transparency in Sharing Science*. Transparency underpins the robust generation of knowledge and promotes accountability to the American public. Federal scientists should be able to speak freely, if they wish, about their unclassified research, including to members of the press.

> *Accountability*. Violations of scientific integrity should be taken as seriously as violations of government ethics, with comparable consequences.

Specific agencies (Including Interior, USDA, Fish and Wildlife Service, NOAA, EPA, etc.) have more detailed Scientific Integrity Policies which WDFW's policy should build on or explicitly reference. WDFW's scientists and policy process deserves no less rigorous protection than that enjoyed by federal agencies. (A list with links to each federal agency's policy is included in this report from the nonpartisan Congressional Research Service: https://crsreports.congress.gov/product/pdf/R/R46614.)

Correct known instances where scientific integrity was not upheld

Those federal policies were a response to specific incidents, especially the censoring of scientists and other political interference in science by previous federal administrations. Unfortunately, WDFW also has a history of such interference. The agency's own surveys and external surveys by PEER have found significant concerns about interference by leadership in how science is conducted and reported, and the state auditor also highlighted this as an area where the department has significant problems (https://sao.wa.gov/reports-data/audit-reports/assessing-workplace-culture-department-fish-and-wildlife). Under the heading "Employees want assurance that decisions made by management are evidence-based," the Auditor explained:

> In discussions with employees, over two dozen told us they feel the agency had made decisions on sensitive topics – such as managing populations of wolves and elk, orcas and fisheries – that appeared to contradict DFW's own research and staff recommendations. These employees believed their research had been ignored. Employees repeatedly said they understood both science and political considerations have to be factored into decisions. However, when staff do not receive explanations on decisions they are more likely to assume the decisions were made entirely for political reasons. Regardless of the actual decision, these employees hoped managers would let them know when their work was consulted or had proven valuable.
>
> > "You see this with the [species] meetings. Senior staff feel they get to decide what information is important to incorporate. It blows my mind that it's your job to provide this information, but they don't use it, they throw it away. And that is pervasive."
> >
> > "How much are you guys [executive management] talking to the people who are collecting data you're basing this on?... It feels like there is a lot of political decisions that happen that are made without a whole lot of attention paid to the data that should be going into those decisions..."
>
> Employees' comments suggest DFW could put greater effort into consistently distributing clear and timely information about agency decisions – along with feedback about the research considered during decision-making – to those employees who need or want it.

Doing so may increase staff confidence in agency decisions and better support employees in providing high quality customer service.

These recommendations, and best practices derived from the federal Scientific Integrity effort, should be integrated into the Best Available Science policy to ensure that scientists feel safe and free in communicating such concerns to the Commission itself in instances where they feel their work was misrepresented. Current policies that require staff scientists to write up all contacts with Commissioners should be revisited to ensure a pathway for concerned staff and whistleblowers to express concerns without endangering their careers. Without ensuring that they can and do receive candid input from agency scientists, it will be impossible for the Commission to feel confident they are acting on the best available science.

Conclusion

The discussion above provides context and explanation for the specific suggested edits which follow, as well as some broader suggestions on procedures which may enhance WDFW's scientific work and the Commission's policymaking process. Offering these suggestions is not a criticism of the staff scientists, who I have often commented are some of finest scientists working in their fields. I hope these suggestions will be taken in the same constructive sense that I have offered them, and that they will help raise the bar even higher for science and scientific policymaking in Washington's wilderness and waters.

Recommendations and edits

- Add an item specifying that staff scientists can communicate their research freely to the Commission, the public, and the media without fear of censorship or retaliation.
- Add an item stating the Commission's wish that WDFW will strive to ensure that its management of fish and wildlife will as a whole reflect the hallmarks of high quality science: measurable objectives, evidence, transparency, and independent review.
- Item a) As described above, the concept of bias should be clarified to distinguish that biased data should be excluded (or statistically corrected if possible) and that analysis presented to the commission ought to avoid bias through the use of techniques like independent peer review, while sources of information should not be excluded merely because they use reliable data to advocate for one particular conclusion within an ongoing scientific or policy dispute.
- Item b) Specify that the department will attempt to offer a data collection plan along with policy proposals to make clear how the success of a new policy will be evaluated, to ensure an iterative strengthening of the scientific basis for policy.
- Item b) Specify that the department will make clear to the commission when their recommendations are based on a broad consensus of scientific views, where their recommendations rest on one interpretation within an area disputed by scientists, and where staff opinion itself is divided on an interpretation or recommendation (perhaps drawing inspiration from frameworks for describing uncertainty like the IPCC's or dissent channels and confidential reports to an ombudsman who can convey concerns to leadership or the Commission). Specify also that the department's presentation will also make clear the areas of inherent uncertainty or limitation in the data, and how new data might alter policy recommendations.
- Item c) should be strengthened and clarified. In particular, it should reflect recommendations on this front from the State Auditor, and the best practices developed by federal agencies as they specified how to protect scientific integrity.
- Item d) is likely too vague to be useful. Reproducing the content of the referenced WAC is likely unnecessary. I would strike the reference to the Attachment, and specify that the best available science is "the consensus of research in the relevant fields, including input from Social Science, reflecting a consilience of all available data and reflecting the remaining uncertainties among scientific specialists on a topic."
- Item e) is a valuable recognition of the role of individual and societal values and ethics in making science policy. While this can be contentious to acknowledge publicly, it is a truism in science policy studies that science alone cannot dictate policy. Science can only tell us how well certain choices will work at moving us toward some value-driven goal.
- Item f) should be expanded to permit presentations by outside experts as well as department scientists, where appropriate and based on standing rules of the commission.
- Item g) is confusingly worded and requires both conceptual edits and simple editing for clarity. Strike "used by the agency in developing recommendations," as that language is either simply redundant and confusing, or worse renders the sentence a tautology. Furthermore, simply including all data is not sufficient to remove bias from interpretation. That is work which is

accomplished by independent peer review. I would suggest splitting the first sentence, as it captures two somewhat distinct thoughts, and rewriting it in part: "The Commission and the Department will consider all relevant sources of scientific information. The Commission and the Department will seek to avoid bias in their interpretation of scientific studies by adopting best practices for open science including publishing datasets and inviting independent peer review through pre-prints and other formal and informal avenues."

- Item g) errs in saying that information provided by the Department's staff "shall be considered acceptable and sufficient." That is simply not the way science can or should be evaluated. The Department's analysis has inherent credibility and deserves respect and a full hearing, but the fundamental principle of science is that acceptability and sufficiency must be judged on the merits through independent peer review, not based on the person or institution that produced the science. The qualifying adjective "important" also creates ambiguity. Rephrase this sentence to: "In areas of contested interpretation or application of science, or conflicting results of pertinent scientific studies, the department will summarize the range of views within the scientific community, an assessment of how certain the broad scientific community and department science staff are about a given interpretation, and explain any policy implications that might differ under other interpretations."
- Item g) creates a complex and impractical system of peer review as the only path by which outside scientists might review the Department's science policy recommendations. This is unworkably complex and cost-prohibitive in many cases, and will hinder rather than advance the pursuit of the best available science. As discussed above, independent peer review is the heart and hallmark of good science, not an occasional step taken in moments of crisis. The commission certainly can and should consider such comprehensive review for items like a long-term Game Management Plan, major revisions to policy on fisheries management, or in evaluating and prioritizing its research agenda. Nonetheless, that formal and process-bound system should not be the exclusive avenue. I suggest striking this sentence entirely (which would not preclude using this pathway as needed). If it is to be retained, it should be presented as one of several ways that the Department and Commission could invite independent peer review, which would also include the Department sending their analyses out to relevant experts, publishing drafts and requesting independent peer review from the scholarly community at large through preprint servers, the Commission inviting external experts to offer a peer assessment in hearings of a committee or the full commission.
- Item h) offers reasonable options for Commissioners to request and the Department to offer, but may not be an exhaustive list of alternative frameworks that commissioners might request. Consider adding a framing sentence that frames these items. As an example: "In order to streamline decision making and reflect known and unknown uncertainties, the Commission and Department may use iterative and adaptive methods to develop and refine policy. For instance…"
- Item h) is a good place to add an expectation that the Department will specify a data collection plan along with policy proposals to show how new data will allow them to test underlying assumptions and refine and revise the immediate policy as well as inform future policymaking.

Thank you again for the opportunity to comment on this policy. It represents an important moment for WDFW and the Commission, and with some modest edits it can serve as a valuable incentive to attract the finest scientists to WDFW and a powerful example to other fish and wildlife departments nationwide about how to prioritize the best available science in policymaking and management.

With sincere thanks for the work that has gone into this policy process,

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BACKCOUNTRY
HUNTERS & ANGLERS
WASHINGTON

May 24, 2024

Subject: Public Comment - Best Available Science Policy Development

To the Honorable Washington Fish and Wildlife Commission,

The Washington Chapter of Backcountry Hunters & Anglers is dedicated to the conservation and sustainable management of our state's invaluable wildlands and wildlife. As stewards of these natural resources, we recognize the critical importance of sound decision-making processes, particularly in the formulation of policies such as the Best Available Science policy. This policy as an opportunity to refine and fortify the decision-making framework of the Fish and Wildlife Commission, we believe it must be strengthened in the following ways:

- Firstly, we emphasize the inclusion of social science must be characterized by its methodological rigor and professional execution. It is imperative that social science be invoked and implemented by qualified practitioners, wholly independent of subjective interpretation by those in a position to influence or bend it. Integrating social science into decision-making processes must be consistent and performed in a manner that upholds standards and ethics from disciplines including sociology and anthropology.

- Secondly, we advocate for the inclusion of Traditional Ecological Knowledge (TEK) as a distinct, legitimate, and valuable source of insight for natural resources management. Acknowledging the wisdom of Indigenous communities since time immemorial, TEK enriches our understanding of ecosystem dynamics and informs sustainable management practices. Therefore, the Best Available Science policy must embrace and integrate TEK alongside western scientific methodologies to foster holistic and adaptive approaches to conservation.

We eagerly anticipate the integration of Traditional Ecological Knowledge and the elucidation of social science's role in decision-making processes within the Best Available Science policy. The Washington Chapter of Backcountry Hunters & Anglers appreciates the opportunity to provide these comments and stands ready to collaborate closely with the Commission in further refining this policy to the benefit of Washington's natural resources.

Respectfully,

Josh Wilund
Co-Chair
Washington Chapter, Backcountry Hunters & Anglers

Dan Wilson
Co-Chair
Washington Chapter, Backcountry Hunters & Anglers

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May 24th, 2024

Washington Fish and Wildlife Commission
Natural Resources Building
1111 Washington St. SE
Olympia, WA 98501

Re: Public Comment on draft Best Available Science Policy

Chair Baker and Members of the Commission,

Thank you for the opportunity to comment on Best Available Science Policy drafted by the Washington Department of Fish and Wildlife (the Department). Defenders of Wildlife (Defenders) is a national conservation organization dedicated to the protection of all native animals and plants in their natural communities. Our Northwest program has worked closely with the Commission and WDFW since 2014, advocating for robust, science-led conservation and wildlife management decision-making on behalf of our 69,000 members and supporters in Washington state.

Defenders deeply values the use of best available science (BAS) to inform and guide decision making and applauds the Department and the Washington Fish and Wildlife Commission (the Commission) for working to develop a common understanding of this term. However, we have one significant concern with the current draft as written, as well as several recommendations for its improvement. These are as follows:

(I) **Issue: The Department cannot be the sole arbiter of what science is considered "acceptable and sufficient**."
Recommendation: Remove the words "the information provided by the Department staff shall be considered acceptable and sufficient," and incorporate the precautionary principle into the BAS policy.

Section (g) of the policy states "In areas of contested interpretation or application of science, or conflicting results of important scientific studies, the information provided by Department staff shall be considered acceptable and sufficient." This precept undermines the second stated goal of the BAS policy "to ensure the integrity of scientific information in addressing decision-critical questions." The ability of the Commission to seek third-party review, stated in the next sentence of section (g), is also rendered superfluous by this statement.

The point of science-based decision-making, as noted in other areas of the draft BAS policy, is to limit the inherent biases of the observer and promote objectivity in the interpretation of data. If the objectivity or interpretation of the data is in dispute, shutting down further assessment will

not resolve the issue. To the contrary, it will only ensure that any existing biases are "baked in" to resulting policy decisions. This carries the significant risk of eroding the public's trust in the Department and damaging its reputation, particularly if it is the Commission (the public-facing body of the agency) that disputes the data.

We understand that the Department can be stymied in doing its job if numerous decisions require further time and resources to resolve. However, particularly considering our current climate and biodiversity crises, it is more important than ever to invest in ensuring that our assumptions are supported by scientific inquiry.

In cases where there is not enough data to support any conclusion (or if it is not feasible to obtain enough data), Defenders advocates for application of the **precautionary principle** in favor of the protected resource, per the agency's mandate "conserve the wildlife and food fish, game fish, and shellfish resources in a manner that does not impair the resource." (RCW 77.04.012, emphasis added) The four tenets of the precautionary principle are "taking preventive action in the face of uncertainty; shifting the burden of proof to the proponents of an activity; exploring a wide range of alternatives to possibly harmful actions; and [notably] increasing public participation in decision making." (Kriebel et al, 2001, emphasis added)

(II) **Issue:** The draft policy contains no reference to Traditional Ecological Knowledge (TEK). This is surprising given the prevalence of indigenous communities in Washington and the care the Department takes in its negotiations with Tribes.

Recommendation: Include a reference to TEK in section (d) (e.g. "and, as appropriate, traditional knowledge, knowledge of indigenous peoples and local knowledge systems") and/or in Attachment 1 under Sources of Scientific information.

The U.S. Fish and Wildlife Service's TEK Fact Sheet provides a helpful definition of this term, and the Paris Agreement includes language that may serve as a guide for incorporating TEK into this policy, namely: "Parties acknowledge that adaptation action…should be based on and guided by the best available science and, as appropriate, traditional knowledge, knowledge of indigenous peoples and local knowledge systems, with a view to integrating adaptation into relevant socioeconomic and environmental policies and actions, where appropriate.

(III) **Issue**: The policy does not address the "best available" component of BAS.
Recommendation: Include language clarifying that in some cases BAS might lack one or more of the criteria in the Characteristics of Scientific Information column in Attachment 1. Reframe these characteristics as criteria or indicia of scientific information reliability, and add two more items: peer review and a statement of any assumptions made when collecting or analyzing data.

The qualities listed under Characteristics of Scientific Information in Attachment 1 could be read as read as exclusive – i.e., a piece of data might be excluded from analysis for lacking some of

these characteristics – and it is not clear whether this is the intent of the list. While we avidly support rigorous scientific analysis and support these characteristics as indicators of that, it should be noted that much available monitoring, inventory, and survey data does not contain a "[t]horough review of literature" or a "conceptual model or theoretical framework." It would be helpful if the policy clarified whether certain information would be discarded for lacking these characteristics.

(IV) **Issue**: The policy does not define or provide references for key terms such as "Structured Decision Making" and "adaptive management approach" in section (h).
Recommendation: Define these terms in the text or provide references to sources where they are defined.

We hope our comments will prove helpful in revising the BAS policy. Below, under "Recommended Resources," we have provided citations to works that may be helpful references during the next stage of revision. Thank you for your consideration, and please do not hesitate to contact us with any questions.

Sincerely,

Kathleen Callaghy
Northwest Representative
Defenders of Wildlife

Works Cited

Kriebel D, Tickner J, Epstein P, Lemons J, Levins R, Loechler EL, Quinn M, Rudel R, Schettler T, Stoto M. The precautionary principle in environmental science. Environ Health Perspect. 2001 Sep;109(9):871-6. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1240435/

Revised Code of Washington 77.04.012 "Mandate of department and commission," https://app.leg.wa.gov/RCW/default.aspx?cite=77.04.012

United Nations Framework on Climate Change, The Paris Agreement, p. 9 https://unfccc.int/sites/default/files/resource/parisagreement_publication.pdf

USFWS, Traditional Ecological Knowledge Fact Sheet, https://www.fws.gov/media/traditional-ecological-knowledge-fact-sheet#:~:text=Traditional%20Ecological%20Knowledge%2C%20also%20called,direct%20contact%20with%20the%20environment.

Recommended Resources:

On Adaptive Management:

Green, O.O. and Garmestani, A.S., 2012. Adaptive management to protect biodiversity: best available science and the Endangered Species Act. Diversity, 4(2), pp.164-178.

On Best Available Science:

Artelle, K.A., Reynolds, J.D., Treves, A., Walsh, J.C., Paquet, P.C. and Darimont, C.T., 2018. Hallmarks of science missing from North American wildlife management. Science Advances, 4(3), p.eaao0167.

Green, O.O. and Garmestani, A.S., 2012. Adaptive management to protect biodiversity: best available science and the Endangered Species Act. Diversity, 4(2), pp.164-178.

Lowell, N. and Kelly, R.P., 2016. Evaluating agency use of “best available science” under the United States Endangered Species Act. Biological Conservation, 196, pp.53-59.

Smallwood, K.S., Beyea, J. and Morrison, M.L., 1999. Using the best scientific data for endangered species conservation. Environmental Management, 24, pp.421-435.