FLOW 2018: Legal Session Facilitated Panel/Audience Q&A Segment

Christopher Estes: Okay. We're going to shift into the facilitated question and answers segment of the Legal Session which I'll lead. Again, I'd like to remind you that we'd like panelists to ask questions to one another in addition to fielding questions from members of the audience. Participants should provide their full name and affiliation, and please speak into the microphone. And, please keep your questions pointed and targeted to the topics that you've heard. We'll start right now.

Audience Member 1: Inaudible. No identification

Christopher Estes: The question is: How do we blend the Eastern Riparian Doctrine with the Western Prior Appropriation Doctrine legal systems? So, this question goes to Bob Caccese to my right.

Bob Caccese: Yeah, that's Bob Caccese, Penn State, that's a really good question. I think from the eastern perspective, it's getting a better handle on quantifying our water use; and from there, then at least we have a baseline to work with, whether we're allocating water to certain sectors or uses, or environmental purposes. Eastern states are starting to recognize the interaction of surface and ground water from a legal perspective, so that's good, but I think, at least looking at western water wise, I think it's challenging because of the priority date system.

So, there's certain things we can learn not what to do, or at least limit ourselves in certain ways, but the way I look at it is if you have a blank check and you're trying to blend both doctrine, see what works from a collaboration standpoint, there's going to have to be flexibility. Laws are so behind the science that I think in order to have stable legal frameworks, you have to have adaptable policies at the same time to blend with the science.

Christopher Estes: Next question.

Ben Emanuel: Okay. Question for Bob, and it may partly be a question for whatever Susquehanna River Basin Commission folks may be here, so feel free to punt on that if you prefer, but thank you for representing the east, and my question, it may also pertain to the structure of the River Basin Commission itself, but the question pertains to, as you said, creative approaches such as the concept of the quarry for low flow augmentation during drought, and my question is, if you know anything about in particular stakeholder engagement on the part of the commission in pursuing creative concepts like that? With any creative concepts, the benefits seem obvious, but due diligence is important too, and that's not just due diligence in terms of engineering, but due diligence from all stakeholder perspectives too. So, just really curious about stakeholder engagement in creative concepts like that.

Christopher Estes: Excuse me. Will you tell us your name and affiliation please?

Ben Emanuel: Oh, sorry about that. Ben Emanuel with American Rivers, a non-profit, in our Atlanta office. Thank you, Christopher Estes.

Bob Caccese: And again, Bob from Penn State. Yeah, I think with this particular project, and I don't know too many of the specifics, so I may ask Graham Markowitz to talk about it briefly, but yeah, it was a process, at least from what I understand, where the commission figured out in order for us to develop our strategic plan for the future for the basin, we need to get a good handle on the water use and water availability, and even though the commission is allocated out about 375 million gallons a day for use, that are actually being currently used, I misspoke, 1 billion gallons a day have actually been legally permitted out.

So, when you take that into consideration, it's figuring out, okay, if we're dealing with low flows right now and we're only a little over a third of what's been allocated that's actually being used, then we have to get creative, and in that sense, I thought it was neat to take advantage of the cards you've been dealt, what's in our backyard right now that we can make use of, especially with the amount of mining activity that went on in Pennsylvania and taking advantage of that.

So, from a stakeholder perspective, I do know that the commission started figuring out where is available water and how do we engage with those stakeholders to transfer title and rights to those areas to the commission. Like I said, Graham, if you want to add to that, you can, but he's here from the commission as well. He's sitting right there.

Graham Markowitz: I can expand on that a little bit.

Christopher Estes: Please tell us your name.

Graham Markowitz: My name is Graham Markowitz -

Christopher Estes: And your affiliation.

Graham Markowitz: Graham Markowitz from the Susquehanna River Basin Commission. I'm a hydrologist there. I can expand on that kind of partnership with unique opportunities to offset consumptive use during low flow periods, in addition to the quarry work. We've engaged with Army Corps of Engineers, also the Pennsylvania DCNR, the Department of Conservation and Natural Resources, the Fish and Boat Commission for studies that would look at other beneficial ways to operate those reservoir operations or revise their manuals to provide ecosystem benefit downstream.

The way we've kind of spun that is the study authority we've gone through to reallocate storage in those systems to provide ecosystem benefit that reflect

more contemporary ecosystem flow science regimes, but would also offset some of the consumptive water use that still occurs during those drought periods.

In terms of stakeholder engagement, it's primarily with the federal government, with Army Corps of Engineers, DCNR, Fish and Boat Commission, and a lot of other local communities that would be impacted by different downstream flow regimes, and potential impacts to flooding, even with tweaking any of those reservoir reservation manuals, there's always opportunity that that would affect different parts of the flow regime. So, it gets kind of tricky, and there's a lot of things to consider, but a lot of the local boroughs we partner with, too, with those studies.

Christopher Estes: Are you done?

Graham Markowitz: Yes.

Christopher Estes: One thing that I wanted to let you know is a slide that Virgil Moore had asked to be included is now up. Virgil, do you want to describe it?

Virgil Moore: Well, it is a mechanical fish, and I'll take a second and tell the story. In 1974, was the first wild trout symposium in West Yellowstone. One of the presenters there was the chief of fisheries in Idaho, Stacey Gepharts, and he gave a presentation called "Wild Trout, Not by a Dam Site," and that presentation was part of a series of planned presentations where surveys on wild trout in reservoirs were done of the states. His whole premise was that reservoirs, as they're operated today, simply aren't conducive to wild trout management.

He illustrated that with the picture of a toilet set in the middle of one of Idaho's reservoirs, Arrowrock, at a very low level, and he said the people who designed these reservoirs' operation also designed these tools use in our bathrooms. The point he was trying to make is they fluctuate as much, and often. In Idaho, most of our reservoirs go through two fill and empty cycles a year. Makes it very difficult, unless you have a huge minimum pool to keep fisheries present. Fortunately, many of our lakes have an engineered minimum pool because of the way they're built. They can't go any lower, so the fisheries exist with hatchery stocking, but his solution to that at that time was a mechanical fish.

This isn't the one that he used in his display. Unfortunately, his slideshow has been lost, but it had wheels on it, and we were going to reconfigure Idaho's hatcheries to produce these creatures as one of our ways of dealing with reservoir fluctuations. A better solution is to learn how to optimize and manage those systems so that we can have fisheries in them.

Christopher Estes: Thank you, Virgil. Another question from the audience? And while we're waiting for somebody to come up, I want to urge you to remember to say your name and also who you're affiliated with, please.

Michelle Cook: I'm Michelle cook from the Nebraska Game and Parks Commission, and my question is for Jeff primarily. In your experience with the drought plans in the west. I don't know if there are interstate compacts that have to be considered about water use, but do those typically take all precedence in those drought plans? In other words, if there is an interstate compact, that other state gets the water first, and then the drought plan comes into play? Thank you.

Jeff Marti: Interstate compacts are approved by Congress and, in some cases, also by the U.S. Supreme Court. As a matter of federal preemption, I think that the compact would probably trump the state drought plan and the state drought plan would take into consideration the constraints of the compacts. You have these obligations to provide a certain quantity of water downstream. The drought plans that I've looked at, they're more administrative process oriented, describing a state's process monitoring drought conditions and then describing what actions might occur as a result of those conditions when you reach those. Does that answer your question? Okay.

Christopher Estes: Another question, please?

Michael Lilly: Michael Lilly with GW Scientific, Alaska and other parts. I want to commend the panel for the excellent presentations, and I wanted to start off a question for Andrew, but also for the others. What I'm seeing is more of a development of what is the value in terms of economics, and so how is that changing over time, as we start trading water and buying water to put it back into streams, and what's needed in the future to improve the economic understanding of water as a commodity? Thank you.

Andrew Purkey: Good question. Andrew Purkey with National Fish and Wildlife Foundation. First thing I wanted to say because you're from Alaska, and Alaska is not covered in this report nor is Hawaii, so I apologize for that. Because of the source of funding in the Columbia being from the Federal Bonneville Power Administration, our methods for valuing water are based on the economic value of water. So, we assess what the use of water could generate in terms of income, and are not basing the price and value of water on the ecological values.

That being said, there's more and more economics around what water is worth to the environment that would expand to the ecological benefits of a deal; and if it's perceived that this is a really good deal, it would be very valuable to factor into the decision. I do often hear from folks that are dealing with the agriculture users, well, what's this worth to you? What's this worth to the fish? That's what you should be paying me, not what it's worth to me in terms of agricultural production.

So, I think it's an important question, and something that needs to be considered moving forward, particularly as we look at non-public sources of funding to invest in these because a private funder might not have the same constraints in terms of how they value the water.

Christopher Estes: Does anybody else on the panel want to discuss the topic of that question?

Virgil Moore: Certainly. The economics in Idaho has been based on what that water's value is traditionally for what that beneficial use is for what that water right is held for. With the Snake River Basin adjudication, when it was finalized, there was an agreement to provide 835,000 acre feet annually to help move fish through the lower snake dams. That water is being obtained through water banks and payment, and it's being paid to storage and other water users that have that water available in storage systems to move downstream, and so the economic value is what that value would have been, and BPA is helping pay the bill on this. Now, does it have ecological services value that is benefited? Probably depends on its timing.

I think it's quality, quantity and timing. Timing becomes the very important part of what ecological services are being provided. Can you add to that benefit? I don't believe those calculations are typically done in Idaho when we try to figure out what the economic value of that is. I can value the fishery. We have really, really good information on that service that's provided to the local community, and we can add that. That's how we got the South Fork Payette and Henry's Fork minimum flows in place because the value of the recreation use on those systems was way greater than the economic value of the other beneficial use, hydropower generation.

Those two competing beneficial uses, the recreation and fishery ecological services were much higher, and so, we're good at that.

Christopher Estes: Go ahead.

Bob Caccese: Sort of based off that is this idea of how do you value your environmental benefits, and recently in Pennsylvania, there was a presentation I watched, but it was surrounding this idea of ROI, or return on investment, but it was defined as return on environment. So, if you do manage your environment in a more sustainable way, whether it's through water use of riparian buffers, they're actually able to calculate the environmental benefits from that for down the road, whether it was for less money you have to put in to mitigate certain things or whatnot, but if you just Google return on environment, you'll be able to find some information on that topic.

Christopher Estes: Jeff (Marti) did you have something you wanted to add?

Jeff Marti: No

Christopher Estes: That was a really good sets of questions and answers. Thank you for your answers. I also want to remind and alert everyone that in 2011, the Instream Flow Council held a workshop on the topic of socioeconomics of water. It covered the challenges, including the Achilles heel associated with comparing traditional and non-traditional economic factors. Next question please.

Dean Watts: Yeah, hi. My name is Dean Watts, I work for Fisheries and Oceans Canada up in British Columbia out of the BC interior office in Kamloops. I deal with the fisheries act and authorizations, primarily in the Columbia Basin, at least partly so. Question I have today, there's been a lot of presenters over the last couple days who've shown the Columbia River Basin map, including some of yourselves up here this morning. I had a quick question, and maybe you would have some answers but maybe open up to others as well that have some knowledge about this basin and particularly the Columbia River Treaty. As you know, most of the treaties are looking to be re-negotiated.

I think the U.S. secretary of state recently, I think last year, gave Canada notice that they would be interested in re-negotiating the treaty, and historically, the treaty has been dealt with flood control, primarily, and also hydropower. The third pillar that has been introduced as a potential negotiation is the issue of environmental flows. I'm wondering if you think, or if anyone else thinks that I should be concerned about whether or not that's a strategy, and remember, I'm interested in protecting flows for fish and fish habitat on the Canadian side of the Columbia Basin, obviously that is our primary goal, but also downstream as well.

There's also salmon reintroduction being talked about or discussed, primarily around the American tribal initiatives not just by the Canadian indigenous groups, First Nations, but also by tribes, primarily Colville tribes, down in the states. Should I be concerned that the third pillar being discussed or proposed as a negotiation to add on to the new Columbia River Treaty be used as a strategy (as a negotiation tool or strategy) to just pull more water down with linkage (and linking it) to future drought scenarios? Would fish ever see that or streams ever see that additional water under an environmental flow pillar potentially not being used for environmental flow purposes downstream?

Andrew Purkey: Andrew Purkey. I'm going to defer because the projects that we fund are on discreet tributary reaches of the Columbia, and our part of the main stem Columbia in the effort to deal with water there; but, Virgil, I don't know if you've dealt with this at all either, given where you are in the basin?

Virgil Moore: Certainly Idaho will be party to those re-negotiations if they come up. The issues you described are on the table. Whether or not the Columbia River U.S./Canada treaty will open back up, and whether those will be the items for re-negotiation is still being discussed. What I can tell you is the governor's office will be the lead on this, not my agency, and the team that he would put together to be part

of that if we're invited to the table, given the nature of the way that treaty was formed predominantly with the coastal states, predominantly with Washington and Idaho and Montana, is yet to be seen. So, your concerns are warranted, and I think you need to be constantly vigilant to what is on the table if that treaty is re-opened for negotiation.

Christopher Estes: Thank you. Next question please.

Lara Fowler: Sneaking up in the back of the room. Lauren Fowler, currently at Penn State, formerly at the Pacific Northwest. Born in Southern Idaho and little when my parents went out to help on the Teton Dam. My question goes more to the stakeholder engagement and involvement of folks, and I'm curious about lessons learned from everybody, particularly from Andrew. Virgil, what do you see on how to actually make this stuff happen from the bottom up, working in collaboration with folks? It's come up in a lot of different discussions. Lessons learned, advice for everybody in the room? What can we take away?

Andrew Purkey: Andrew Purkey. When I first went out to Eastern Oregon to try and talk to the folks who had the water rights that we had identified as important on important stream reaches, coming over from Portland didn't go over very well, and I was dealing with a lot of suspicion; and, I quickly realized that to be successful and engaging with folks in those communities, that there needed to be a representative or a champion to kind of launch it, and then there needed to be community consensus to build on it, and so really, engaging through the priorities that are established at the local level, a number of the groups that we fund are traveling into the watersheds to do this negotiation and project development work.

So, they have to be very sensitive to follow the lead, and I'll hand the microphone to Virgil because Idaho is one of the best examples, particularly the Salmon River Basin, where I think even to Boise, the Salmon River is isolated and remote, and so there would be just as much mistrust of someone coming from Boise as there would be from Portland, Eastern Oregon. Well, I think I'll turn the microphone over to Virgil now to talk about it because that's really been the key to the success of these projects that you saw on my examples in the Lemhi, was the local drivers that were producing the support for it.

Virgil Moore: Lara, thanks for that question. It's a really good one, and I think it's one of the most important aspects of what we can do. All states have good examples of collaborative efforts. I'm familiar with some in Oregon as well, and a few in Washington and Montana, but Idaho has found a formula that works in many cases. Generally, it has to do with something that somebody messed up on getting things started. Some activity that prompted the locals to get going. It could've been the listing in the upper Salmon River of anadromous fish that started that collaborative, and in this particular case, NOAA Fisheries coming in there with a hammer to deal with the stream flow issues that did not work very well.

Whiskey's for drinking, water's for fighting over, and that was exactly the attitude that was present in the Salmon River Basin. We had staff in our organization that were not compatible with an understanding and a respect for private lands. It also became clear that you cannot ship people from outside into a small community to make that work. You had to develop it onsite. To their credit, NOAA Fisheries made some changes. The Soil and Water Conservation Districts brought some new staff in that had the proper attitudes.

We promoted some locals that had the professional training that understood the community and the lifestyle up there. That all came together with landowners that wanted to do something. That was the spiritual aspect of this. They wanted their lands. They remembered the fish being there. They wanted to understand how to work with it and out of that, in came this effort, but it took funding. The key, then, was Bonneville Power Administration because they were trying to find some offsets to the losses that they could not mitigate for in the lower Snake dams, and they were willing to invest money in these habitat limited natural areas to try to get them reconnected and reflowed, and it worked, and it's still working.

We have additional funds that we utilize. There's congressional funding called the Pacific Coastal Salmon Recovery Act. Some may or may not have heard of that, but it provides money at a state level for us to allocate to various community-based collaboratives to get work done. We do that in the Clearwater to some degree today, as well as the Salmon River Basin. Other areas, the Kootenay River came out of conflicts with the county commissioners, the tribe and the state over things that were going on up there, and truthfully in this particular case, it was the tribe that brought everybody to the table and made it work.

The Clearwater Basin, it was Senator Crapo, came in because of complaints by constituents of not being able to get anything done, and he actually provided federal funding to bring that collaborative together that now is showing results seven years. The Owyhee has a collaborative. The Owyhee Collaborative was formed because of wilderness designation working through that. Each of these collaboratives have formed to a large degree because of some action by a state or federal entity, or a mistake that was made by them, sometimes a local entity.

The other collaborative we're heavily involved in is Sage Grouse, and everybody thinks what's Sage Grouse got to do with drought? Has a lot to do with drought because one of their critical life phases requires wet areas for the juveniles. It's the same stuff that we need to bring back together. The short answer is how do you make it happen? You've got to go to the table willing to give.

You've got to have people that know how to maintain their legal responsibilities but recognize the trust that has to be built among people in relationships, and I truly love the presentation we had that talked about that spiritual and other reasons why we love water, and it's all part of a continuum, and I really believe that's where it's at with all working landscapes is the people who live there,

work there, play there, are the ones that are closest to it, and we that are in higher level positions now, have to empower that at the local level, and it's that empowerment.

I don't try to get in the way of this stuff. I may do it differently if I was there, but I'm not going to get in the way of it. I'm going to validate it, and fund it, and whatever I can as an administrator. That's where I think the Instream Flow Council working collaboratively at a higher scale to be sure that these concepts filter down to wherever they are have the right place. It's the future of fish and wildlife and management in the west at least, and I think it's going to be nationwide, and Canada as well, is going to be finding these functional collaboratives and building on them, and showing what we see as people who aren't part of those, once they see the benefits, they desire to be part of it. One last point I will make, though, is the question is how do these things stand up?

In the Clearwater Basin, some of the collaborative there was trying to designate some roadless areas as permanent roadless areas in exchange for doing some logging in other areas to open a forest up that has not burned in a long time and needed some management. That agreement was not just 5,000 or 10,000 acres. It was hundreds of thousands of acres, and the EA went through the Forest Service process, and some of the members of the collaborative didn't like the way things were going, and they dropped out of the collaborative some time back. They challenged the USFS NEPA document.

Went to the judge, and the judge looked at it and said you know, this collaborative has done enough. I'm going to say it's okay, and those of you that dropped out should've stayed in. Essentially, that's my simplification of what the judge's opinion was, but it validated that collaborative work at finding a compromise, and adjudicated it. Very, very important. We've seen that in a couple of other cases, where collaborative compromises and actions that needed to be implemented by federal or state agencies requiring NEPA or permitting processes that got challenged in court persisted.

So, to be ready to help them when it's appropriate, but not get in the way.

Christopher Estes: Indeed, very important information and examples. We'll take one more, if it's a really quick question, because we need to close up after in order to be able to shift gears after to go to lunch. Thank you.

Rich McCleary: Yeah, good morning. My name is Rich McCleary. I work with the province of British Columbia in fish and wildlife. We have a situation that relates to climate change. We've got fan building, deltas building due to flooding and land use changes, and the problem we have is that our old flow targets for getting the fall spawners out of the lakes and reservoirs into the streams, they don't work anymore, so there's a couple options.

One is to maintain the reservoirs at a higher level to allow the fish to get through. I'm just wondering if you have also had that problem, and if you have any legal or also technical solutions to that specific issue? I thought Jeff or Virgil may have some ideas.

Jeff Marti: So, this is a project that previously was providing a flow downstream that no longer sufficient for moving the fish upstream, is that correct?

Rich McCleary: Yeah, it's just that's their pinch point. The fish just can't get through, and the deltas are really braided out, and the water just isn't deep enough anymore.

Jeff Marti: Yeah. That sounds maybe like a bigger example of that one little picture I showed of the guys with the shovels. It sounds like you need more guys with shovels. Depending on the situation there, I don't know if you're looking at making bigger flows available, some kind of flushing flow to move that material out and clear the channel that way. That might be an option, or some kind of a channel. Reconfiguration, I would imagine that you could look at some various alternatives for trying to accomplish that, but I wouldn't know right off the top of my head right here. Virgil?

Virgil Moore: Certainly the question would be in a controlled system with a dam, can the water levels be managed to raise water levels? Lake Pend Oreille has this problem. Some of the solution has been habitat improvement. It's been part of our settlement with both Vista Corp and Bonneville Power. There's a dam on the upstream side, and a dam on the low side managing that natural level, and so it's all about timing. The timing of draw down has resulted in loss of a delta riparian habitat.

The same thing, though, on Lightening Creek, we had severe braiding due to the nature of that channel, and it's the same thing. Large organic debris and rock were used to restructure that lower channel such that when it was low for flood control needs and other things, fish could pass through it. It requires money and commitment, and the Lake Pend Oreille Commission was helpful in working with Bonneville Power and Corps of Engineers for more flexibility on managing the water. It's tough, though, because of flood control down river for the city of Portland.

Christopher Estes: Thank you all very much. I will now close the legal session. First I want to thank everyone on the panel and the audience. The presentations and questions and answers discussion covered great examples of drought definitions, legal actions, and in some instances other tools, that can be used to mitigate negative drought impacts to flow regimes and water levels required by fish, wildlife, and habitat. The session also included discussions related to the significance of dealing with all elements of the hydrologic cycle, including a combination of challenges created by drought and extreme wet hydro-illogic reactive based cycles. Although these drought and extreme wet events are also related to climatic variation, the Instream Flow Council chose to only focus on a “drought theme” because the term hasn't been politicized yet. I don't know if anybody

would've been here from the federal agencies if we had using the term “climate” instead of “drought”.

Later sessions will cover institutional, technical and public involvement tools.

So, with that, I will close and ask everyone to please thank our panel and audience. Please give everyone an applause for their contributions.

Eric Nagid, the Instream Flow Council Past President, will tell us what's happening next.

Eric Nagid: All right. Well, thanks Christopher, and I just wanted to reiterate what Christopher said. Thank you for some very dynamic and informative presentations. What's going to happen next is lunch, which is going to be out where we had lunch yesterday, out in the tent, so that'll happen at noon, which is in 10 minutes. Thanks.